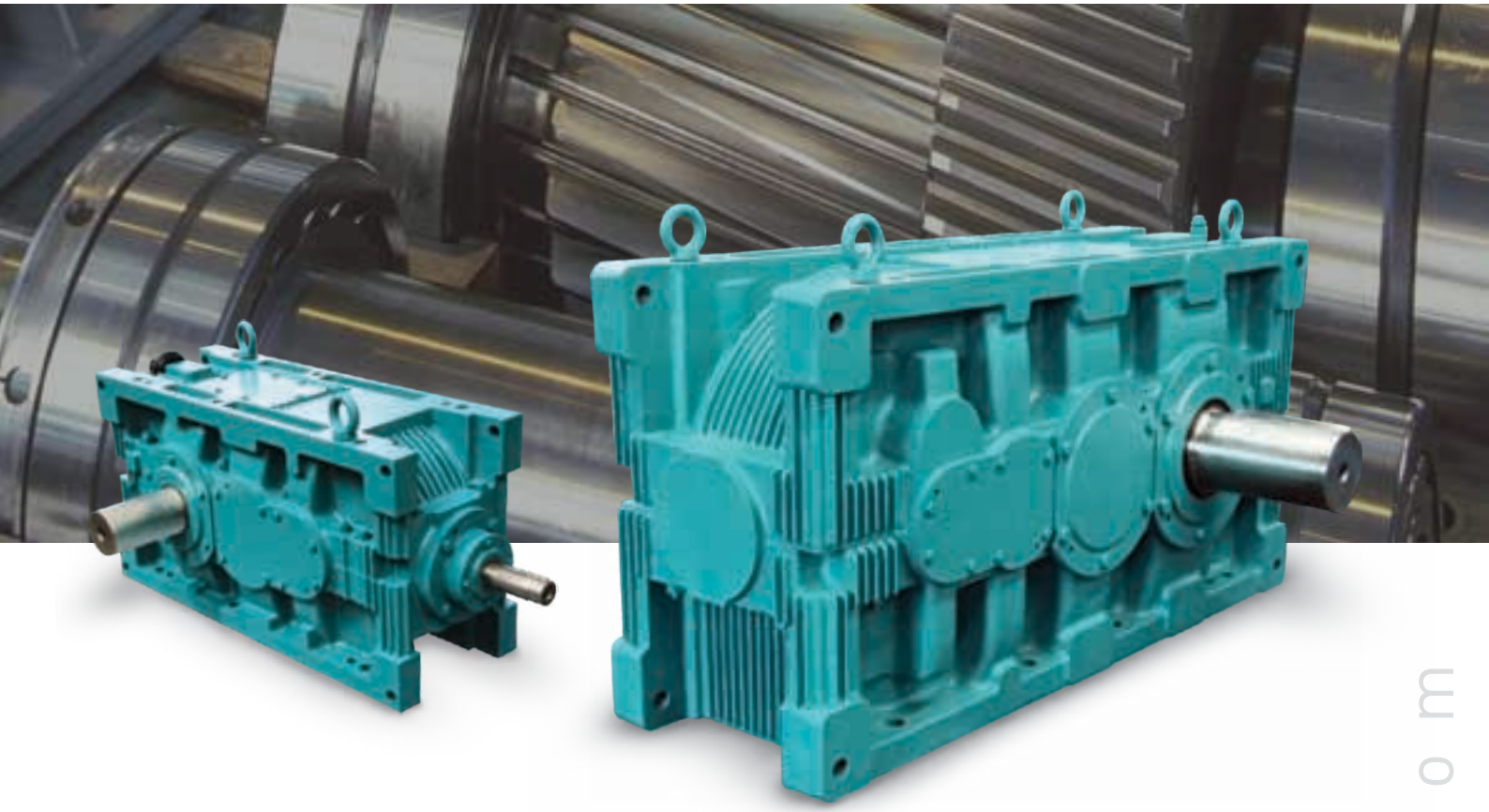
ELECON

EOS Series

The Aura of Excellence



ELECON
GEARING THE FUTURE

www.elecon.com

Catalogue No.: 211/EECL/01/14 - R1

Contents

Characteristic and advantages of the EOS-SERIES GEAR UNITS

Overview :
Keeping in line with it`s strategy of "Always a step ahead in technology"Elecon presents the EOS Series -answer to industry needs.

The EOS series has been developed keeping in mind the industry requirements and offers greater flexibility and advantages and presents a wide range of features :

- Higher torque ratings
- Footprint same as ET Series
- Suitable for numerous applications
- Universal mounting
- Various sealing options available
- Different cooling options

General Information and Characteristic Features

Technical :
The power tables apply to normal conditions, i.e., drive by an electric motor, smooth operation, operation for eight hours per day, 2.5-fold starting torque relative to catalogue performance PN, 100% duration of operation, ambient temperature 20Deg C. Power for intermediate speeds can be interpolated linearly.

Higher drive speeds than indicated and selection as finite-fatigue strength gears on request. Reinforced bearings are optional for heavy external forces (e.g. output drive by pinion).

Design :

- Increased torque capacity
- Universal mounting
- Different shaft designs as standard options
- Modular concept casings enabling faster deliveries
- Different sealing options
- Better cost to performance ratio

Efficiencies :
99 % for single reduction helical gear boxes
98 % for double reduction helical gear boxes
97.5% for triple reduction helical gear boxes
97% for quadruple reduction helical gear boxes
97.5% for double reduction bevel helical gear boxes
97% for triple reduction bevel helical gear boxes
96.5% for quadruple reduction bevel helical gear boxes

Mounting :
Universal Casing design enabling various mounting positions.

Noise Levels :
Allowable noise level is 85 dB. Lower noise levels with additional add-ons can be achieved.

Vibration Levels :
Allowable vibration limits is generally as per ISO 10816.

Thermal Capacities :
In-addition to higher torques the ES series comes with optimized thermal ratings which is due to larger available surface area .

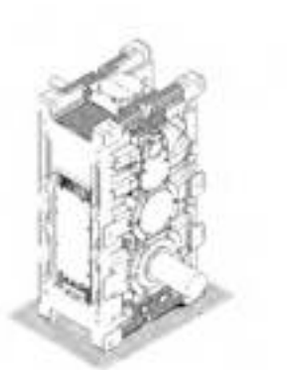
Installation :
Before the gear unit is set up the operating instructions should be studied and followed. The plant user should provide protection covers on rotating parts.

Selection of Gear:

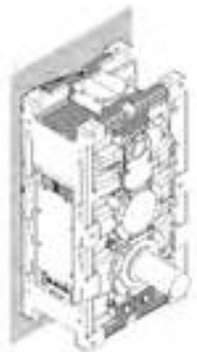
Single Reduction Helical Gear H1 i_N = 1.25 to 5
Double reduction Helical Gear H2 i_N = 5.6 to 22.4
Triple reduction Helical gear H3 i_N = 20 to 112
Quadruple reduction Helical gear H4 i_N = 90 to 560
Double reduction Bevel Helical Gear B2 i_N = 5 to 22.4
Triple reduction Bevel Helical Gear B3 i_N = 20 to 100
Quadruple reduction Bevel Helical Gear B4 i_N = 80 to 560

Mounting Positions and Surfaces for Helical Gear Unit

OVER DRIVEN



Surface-5



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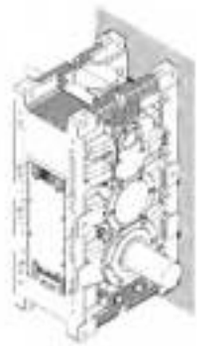

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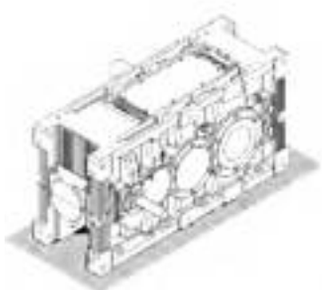
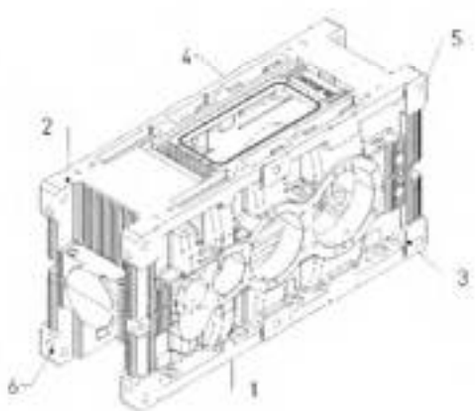
HORIZONTAL



Surface-1

Surface-2

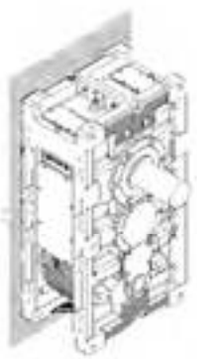


VERTICAL

Surface-3

UNDER DRIVEN

Surface-6



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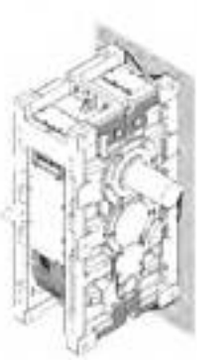
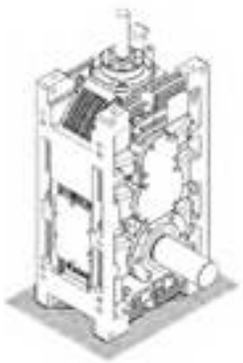


Surface-2

Mounting Positions and Surfaces for Bevel-Helical Gear Unit

VERTICAL

OVER DRIVEN

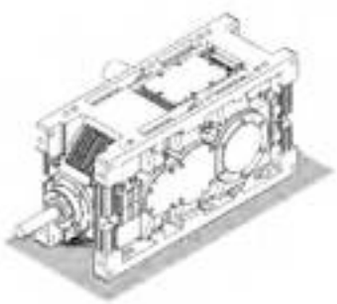


Surface-5

Surface-3

Surface-1

HORIZONTAL



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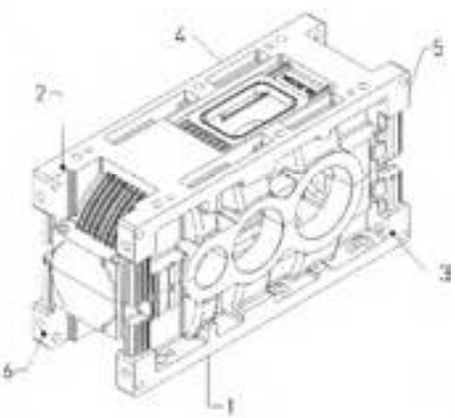
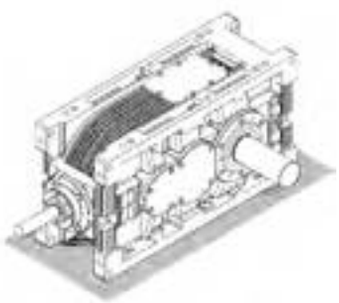
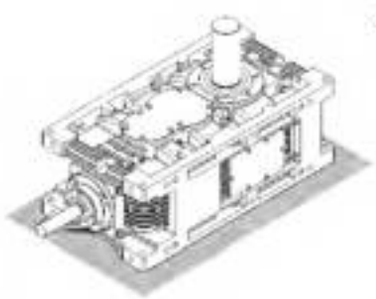




Surface-2

VERTICAL



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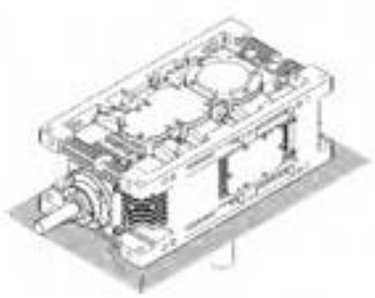
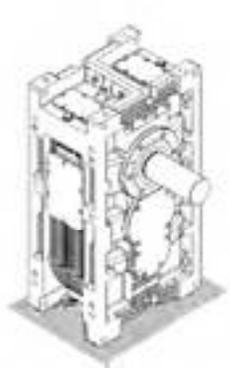
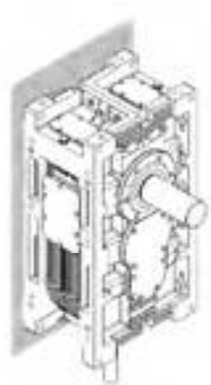


Surface-3

UNDER DRIVEN



Surface-6

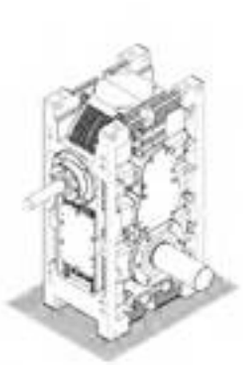


Surface-3

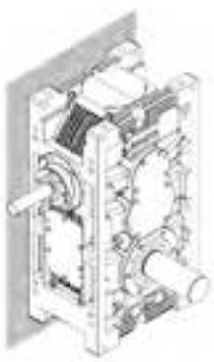
Surface-2

Mounting Positions and Surfaces for Compact (Beval-Helical) Gear Unit

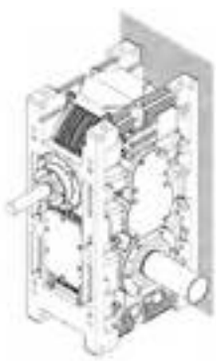
OVER DRIVEN



Surface-5

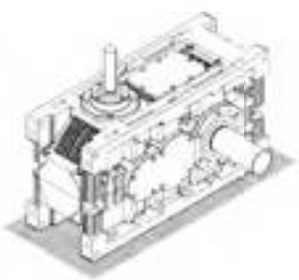


Surface-3

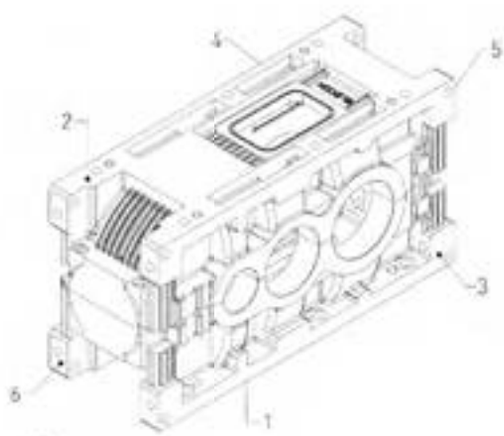


Surface-1

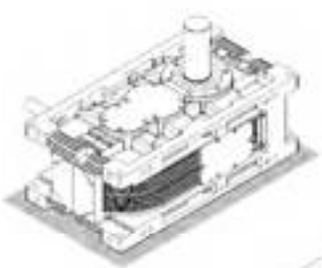
HORIZONTAL



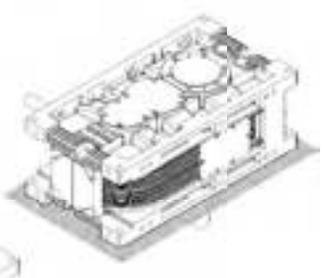
Surface-1



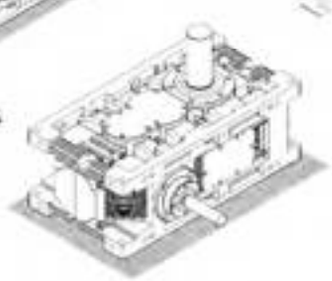
VERTICAL



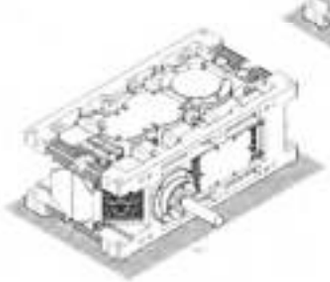
Surface-4



Surface-4

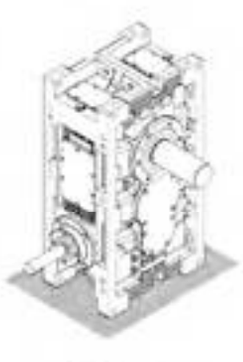


Surface-3

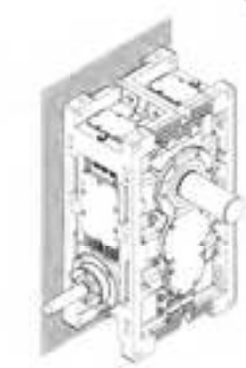


Surface-3

UNDER DRIVEN



Surface-6



Surface-4

Surface-1

Nomenclature:

Helical / Bevel-Helical / Compact Drive Gear Units

H 3 - 2 0 - H N - 1 - A - 0 0 - 0 5 0 0 - 1 1

- **Shaft Arrangement**
- **Nominal Ratio * 10**
- **Type of Lubrication**
  - 0 - Splash Lubrication
  - 1 to 2 - Oil Bath Lubrication
    - 1 - Oil Bath Lubrication
    - 2 - Oil Bath Lubrication with Compensating Tank
  - 3 to 8 - Forced Lubrication
    - 3 - Forced Lubrication with BOP
    - 4 - Forced Lubrication with BOP and Cooler
    - 5 - Forced Lubrication with MDP - Face Mounted
    - 6 - Forced Lubrication with MDP and Cooler - Face Mounted
    - 7 - Forced Lubrication with MDP - Foot Mounted
    - 8 - Forced Lubrication with MDP and Cooler - Foot Mounted
  - 9 - Special
- **Type of Cooling**
  - 0 - None
  - 1 - Single Fan
  - 2 - Double Fan
  - 3 - Cooling Coil
  - 4 - Single Fan + Cooling Coil
  - 5 - Double Fan + Cooling Coil
  - 6 - Oil Heater
  - 9 - Special
- **Attachments**
  - A - None
  - B - Backstop
  - C - Motor Adaptor
  - D - Torque Arm
  - E - Backstop, Motor Adaptor
  - F - Backstop, Torque Arm
  - G - Backstop, Motor Adaptor, Torque Arm
  - H - Motor Adaptor, Torque Arm
- **Type of Gear Case**
  - 1 - Cast Iron Gear Case
  - 2 - SG Iron Gear Case
  - 3 - Fabricated Steel Gear Case
  - 8 - Semi Special Gear Case
  - 9 - Special Gear Case
- **Type of Output Shaft**
  - N - Solid Shaft with Key
  - K - Hollow Shaft with Keyway
  - D - Hollow Shaft with Shrink Disc
  - S - Hollow Shaft with Splines
  - F - Flanged Shaft
  - R - Reinforced Shaft (Solid)
- **Gear Unit Mounting**
  - H - Horizontal
  - V - Vertical
  - O - Overdriven
  - U - Underdriven
  - T - Torque Arm
- **Gear Unit Size**
- **Number of Stages**
  - 1 - Single Stage
  - 2 - Two Stages
  - 3 - Three Stages
  - 4 - Four Stages
- **Gear Unit Type**
  - H - Helical
  - B - Bevel-Helical
  - C - Compact Drive (Bevel-Helical)

Selection Example and symbolic Designation:

1. Determination of the type of gear

1.1 Establish whether helical gear or bevel helical gear

1.2 Determine the transmission ratio

$$i_N = \frac{n_1}{n_2}$$

The type of gear is then determined

2. Determination of the gear size

2.1 Finding out gear box size

$P_N \geq P_e \times f$ 'f' from tables 1,2 and 4

2.2 Cheking starting torque

$$\frac{M_K . n_1}{P_N . 955} \leq 2.5$$

3. Checking heating effects

3.1 Gear unit without additional cooling when

$P_e \leq P_1 \times f_W$

3.2 Gear unit with fan possible when

$P_e \leq P_2 \times f_W$

3.3 Gear unit with built-in cooling coil possible when

$P_e \leq P_3 \times f_W$

3.4 Gear unit with built-in cooling coil and fan possible when

$P_e \leq P_4 \times f_W$

3.5 Gear unit with external oil cooler necessary when

$P_e \geq P_4 \times f_W$

i_N	=	nominal transmission ratio
n_1	=	input speed [rpm];
n_2	=	output speed [rpm];
P_N	=	nominal gear box rating [kw] - see power table
P_e	=	absorbed power of the connected machine [kw]
f	=	service factor = $f_1 \times f_2$
f_W	=	factor for amb. temperatures (table 3)
t	=	ambient temperature [^{0} C]
E_D	=	running period [%], e.g. E_D = 80%
P_1	=	Thermal capacity without additional cooling at t=20^0 C; E_D = 100 (see power table)
P_2	=	Thermal capacity with fan
P_3	=	Thermal capacity with built-in cooling coil
P_4	=	Thermal capacity with built-in cooling coil and fan
M_K	=	Staring torque or max. input torque [da Nm]

Example selection of calculation

Given

Prime mover :

Electric Motor, P motor = 500 kw,

n_1= 1500 rpm

2 fold starting torque Mk = 6370 Nm

Working Machine

Heavy rubber-belt conveyor

Required output power, P_e = 450 kW

Speed, n_2 = 60 rpm

Period of operation : 16 hours per day

Starts : 1 per hour

Running duration per hour, E_D = 100%

Ambient temperature : 40^{0}C

Gearbox type : Bevel Helical Gearbox

Selection of gear :

Required : Bevel Helical Gearbox

Design :

1. Determination of the gearbox type

1.1 Bevel helical gear is specified

1.2 $i_N = \frac{n_1}{n_2} = \frac{1500}{60} = 25:1$

Selected: Gearbox type is B3, triple reduction bevel helical gear unit.

2. Determination of gearbox size :

2.1 Operating factor : 'f' from tables 1 and 2 = 1.5

2.2 Required nominal gearbox rating :

$P_N = P_e \times f$

$= 450 \times 1.5$

$= 675$ kW

2.3 From power table select B3 gearbox size 26 with P_N = 701 kW

2.4 $P_N \geq P_e \times f$, as 701 kW $\geq$ 450 kW x 1.5 = 675 kW

2.5 Checking starting torque :

$\frac{M_k \times n_1}{P_n \times 9550} \leq 2.5$

$\frac{6370 \times 1500}{701 \times 9550} = 1.43 \leq 2.5$

3 Checking the thermal capacity :

3.1 From table 3

fw = 0.75 for gear box without additional cooling

Pe $\geq$ P1 x fw as 450 kW $\geq$ 247.5 kW (330 kW x 0.75)

i.e. Additional Cooling is required

3.2 From table 3

f_w = 0.8 for gear box with fan cooling

$P_e \leq P_2 \times f_w$ as 450 kW $\leq$ 537 kW (672 kW x 0.8)

i.e. Gearbox with additional fan cooling

3.3 The selected gear box is B3-26, i_N = 25:1 and requires fan cooling.

Operating factors:

Table 1	Load parameters				
Driven machines		**Driven machines**		**Driven machines**	
Excavators and stackers		Impeller blowers	G	-- wet	S**
Bucket chain excavators	S*	Turbo blowers	G	-- suction	S**
Travelling gear		Centrifugal blowers	G	Suction rollers	S**
--- caterpillar track	S*	**Generators**		Drying cylinders	S**
--- rail	M	Generators, under uniform load	G	**Pumps**	
Bucket-wheel stackers	M*	Welding generators	***	Proportioning pumps	M
Bucket wheels		**Rubber and Plastics**		Piston pumps	
--- clearing	S	Extruders		- U < 1:100	S
--- coal	S	-- rubber	S**	- U > 1:100 - 1:200	M**
--- lime	S	-- plastics	M**	Centrifugal pumps	
Cutter heads	S*	Calenders	M**	- light liquids	G
Slewing machines	M*	Kneading machines, rubber	S**	- viscous liquids	M
Suction pumps	M*	Mixers	M**	Compression pumps	S
Cable drums	M	Mills, rubber	M**	Plunger pumps	S**
Winches	M	Rolling mills, rubber	S**	Sand pumps	M**
Mining, rock, earth		**Wood-working machinery**		**Machines for the Textile Industry**	
Concrete mixers	M	Decorticating drums	S	Bobbin winding machines	M
Crushers	S	Planing machine	M	Printing machines	M
Briquetting presses	H	Saw frames	M	Dyeing machines	M
Rotary kilns	S**	**Iron and Steel Industry**		Tan-liquor vessels	M
Pneumatic sifters	M*	Foundry crane (hoisting gear)	S**	Calenders	M
Clay mixers	M	Converters	***	Willowing machines	M
Chemical Industry		Slag cars	G**	Drying machines	M
Mixers	M	Sintering belts	M**	Looms	M
Agitators		Crusher	S**	**Compressors**	
--- pure liquids	G	Torpedo mixers	***	Rotary piston compressors	
--- liquids and solids	M	Car tipper	S	- U < 1:100	S
--- liquids with various densities	M	**Cranes**		- U > 1:100 - 1:200	M
Rotary Dryer	M	Luffing gear	G*	Centrifugal compressors	M
Centrifuges		Travelling gear	M*	Turbo compressors	M
--- light	G	Hoisting gear	M*	**Rolling mills**	
--- heavy	M	Slewing gear	M*	Plate tilters	M**
Petroleum Industry		Winches	G	Bloom pushers	H**
Drilling pumps	***	**Metal working**		Bloom conveying plant	S**
Rotary Klins	M	Folding presses	S	Wire pulls	M
Filter presses	M**	Plate bending machines	M**	Revolving turrets	M**
Pipeline pumps	M**	Plate straightening presses	S	(contin. casting)	
Scavenging pumps	M**	Eccentric presses	S	De-scaling crushers	S**
Conveying plants		Hammers	S**	Reels	
Uniform load		Planing machines	S	- strip	M*
Bucket conveyors	G	Crank presses	S	- wire	M**
Roasting furnace conveyors	G	Shearing machine	M**	Walking beam conveyors	M*
Assembly line belts	G	Forging presses	S	Chain transporter	M**
Band conveyors	G	Punching machines	S	Cooling troughs	M**
Overhead conveyors	G	**Mills**		Traverse tractors	M**
Chain conveyors	G	Hammer mills	H**	Pipe welding machine	S
Apron conveyors	G	Edge mills	H**	Pipe drawing machine	S*
Worm conveyors	G	Ball mills	H**	Roller strightening machine	M**
Medium and heavy load		Pendulum mills	H**	Roller gear beds	
Shaft - sinking machines	S*	Impact mills	H**	--- light	M**
Bucket conveyors	M	Tube mills	H**	--- heavy	S**
Bucket belts	M**	Beating mills	H**	Shears	
Assembly line conveyors	M	Rod mills	H**	--- plate	S**
Conveyors winders	M**	Roller mills	H**	--- wire	M**
Conveyors	S*	**Foodstuffs machines**		--- billet	S**
Belt Conveyors	M	Filling machines	G	--- cropping	S**
Chain Conveyors	M	Kneading machines	M	--- plate trimming	M**
Goods lifts	M	Packing machines	G	Winding turret	M**
Passenger lifts	***	Weighing machines	M	Winding tractor	M**
Apron conveyors	M	Sugarcane crushers	M**	Continuous casting plants	S**
Shaker conveyors	M	Sugarcane mills	S**	Shifting device	S
Worm conveyors	M	Sugarcane Cutters	M**	Roller adjusting device	M
Inclined lifts	S**	Sugar-beet Cutters	M	**Water recycling machine**	
Blowers, fans, ventilators		**Paper machines**		Thickeners	M
Axial blowers	M	Couchers	S**	Gyroscopic ventilators	M
Rotary piston blowers	M	Glazing cylinders	S**	Mixers	M
Large ventilators (mining)	M	Calenders	M**	Water screws	M
Cooling tower fans	***	Mixers	M	Vacuum filter presses	M
Radial blowers	M	Presses		Rate/Screen drives	G
Induced draft fans	M	--- glue	S**		

Table 2	Service factor				f_1
		Prime mover Load parameter			
Prime mover	Hours of operation/day	Uniform load G	Medium load M	Heavy load S	Extra Heavy duty H
Electric motor turbine	up to 3	0.80	1.00	1.50	2.0
	over 3 to 10	1.00	1.25	1.75	2.25
	over 10 to 24	1.25	1.50	2.00	2.5
Piston engines 4-6 cylinder U>1:100-1:200	up to 3	1.00	1.25	1.75	2.25
	over 3 to 10	1.25	1.50	2.00	2.5
	over 10 to 24	1.50	1.75	2.25	2.75
Piston engines 1-3 cylinder U<1:100	up to 3	1.25	1.50	2.00	2.5
	over 3 to 10	1.50	1.75	2.25	2.75
	over 10 to 24	1.75	2.00	2.50	3.0

1) Cooling water temperature max. 20° C
Load parameters
G = Uniform load
M = Medium load
S = Heavy load
H = Extra Heavy duty
* = Detailed calculation on request
** = Only calculated for 24-hour period of operation
*** = Load parameter on request.
U = Cyclic variation

The load parameters quoted are parameters gained from experience. Calculations for driven machines not mentioned above or deviations from the norm obtainable on request.

Table 3	Factor for amb. temperatures					f_w
Type of cooling	Ambient tem-perature	Duration of operation per hour 100%	80%	60%	40%	20%
For gear boxes without additional cooling	10° C	1.12	1.34	1.57	1.79	2.05
	20° C	1.0	1.2	1.4	1.6	1.8
	30° C	0.88	1.06	1.23	1.41	1.58
	40° C	0.75	0.9	1.05	1.2	1.35
	50° C	0.63	0.76	0.88	1.01	1.13
For gear boxes with fans	10° C	1.15	1.38	1.61	1.84	2.07
	20° C	1.0	1.2	1.4	1.6	1.8
	30° C	0.9	1.08	1.26	1.44	1.62
	40° C	0.8	0.96	1.12	1.29	1.44
	50° C	0.7	0.84	0.98	1.12	1.26
For gear boxes with cooling coils	10° C	1.1	1.32	1.54	1.76	1.98
	20° C	1.0	1.2	1.4	1.6	1.8
	30° C	0.9	1.08	1.26	1.44	1.62
	40° C	0.85	1.02	1.19	1.36	1.53
	50° C	0.8	0.96	1.12	1.29	1.44
For gear boxes with fans and cool-ing coils	10° C	1.12	1.34	1.57	1.79	2.05
	20° C	1.0	1.2	1.4	1.6	1.8
	30° C	0.92	1.1	1.29	1.47	1.66
	40° C	0.83	1.0	1.16	1.33	1.5
	50° C	0.78	0.94	1.09	1.25	1.4

1) Maximum cooling-water temperature 20° C

Table 4	Starting-frequency factor						f_2
	Driven machines factor						
Starts per hour	‡ 1.2	‡ 1.2	‡ 1.4	‡ 1.6	‡ 1.8	‡ 2.0	
1	1	1	1	1	1	1	
2 to 2o	1.2	1.1	1.08	1.07	1.07	1.06	
21 to 40	1.3	1.2	1.17	1.16	1.15	1.08	
41 to 80	1.5	1.4	1.25	1.23	1.18	1.10	
81 to 160	1.6	1.5	1.35	1.3	1.2	1.1	
160 to 320	2	1.8	1.7	1.6	1.5	1.4	
Over 320	2.5	2.25	2	1.9	1.8	1.75	

Nominal Power Rating (kW) Helical - Single Stage Type - H1

i_N	n1	n2	Gear unit Size											
			11	13	15	17	18	20	21	22	23	24	25	26
1.25	1500	1200.0	84	171	319	579	723	1376*	2015*	2573*				
	1000	800.0	56	114	213	386	482	917	1343	1716				
	750	600.0	42	86	160	290	361	688	1007	1287				
1.4	1500	1071.4	75	153	285	517	645	1228*	1799*	2298*				
	1000	714.3	50	102	190	345	430	819	1199	1532				
	750	535.7	37	76	142	259	323	614	899	1149				
1.6	1500	937.5	63	121	213	381	488	925	1375*	1875*	2563*			
	1000	625.0	45	89	163	288	363	688	1000	1375	1813	2625	3488*	
	750	468.8	35	70	131	238	300	569	825	1125	1475	1950	2850	
1.8	1500	833.3	56	114	200	363	444	863	1250	1750*	2500*			
	1000	555.6	40	83	150	275	331	650	938	938	1750	2250	3275*	4825*
	750	416.7	31	65	123	225	275	531	763	763	1400	1813	2675	3938
2	1500	750.0	48	99	188	338	425	788	1188	1625*	2250*			
	1000	500.0	34	71	138	250	313	594	875	1175	1625	2100	3125	4538*
	750	375.0	26	55	111	206	263	488	725	963	1275	1713	2488	3713
2.24	1500	669.6	46	85	169	313	388	750	1113	1500*	2063*			
	1000	446.4	33	60	125	238	294	563	813	1125	1500	2000	2875	4200*
	750	334.8	25	46	103	194	238	463	663	925	1213	1575	2275	3438
2.5	1500	600.0	38	71	156	288	363	688	1025	1375	1875*	2563*		
	1000	400.0	26	51	119	213	275	513	775	1025	1400	1813	2625	3850*
	750	300.0	21	40	96	175	225	419	625	838	1125	1475	2150	3150
2.8	1500	535.7	34	60	144	263	331	619	938	1250	1688	2313*		
	1000	357.1	24	43	100	200	250	469	700	938	1250	1638	2388	3613
	750	267.9	19	34	78	163	206	381	575	763	1025	1338	1950	2950
3.15	1500	476.2	29	59	114	238	300	575	850	1150	1563	2063	2900*	4375*
	1000	317.5	20	41	78	175	225	438	638	863	1150	1500	2188	3300
	750	238.1	16	33	59	138	188	356	513	713	938	1200	1788	2688
3.55	1500	422.5	25	54	115	231	300	575	850	1150	1550	1888	2750	4038*
	1000	281.7	18	39	79	163	225	438	613	788	1125	1425	2075	3038
	750	211.3	14	30	59	125	188	344	475	688	888	1163	1688	2488
4	1500	375.0	21	44	94	200	256	575	800	1063	1538	1688	2488	3663
	1000	250.0	14	31	66	131	175	438	569	750	1100	1275	1875	2750
	750	187.5	11	24	50	101	138	331	444	613	838	1038	1525	2329
4.5	1500	333.3	18	39	68	171	244	469	675	975	1388	1550	2213	3200
	1000	222.2	12	28	49	115	175	319	475	710	983	1175	1538	2238
	750	166.7	9.0	21	38	87	131	244	369	534	740	963	1188	1750
5	1500	300.0	15	34	63	146	175	451	594	838	1164	1388	2075	3088
	1000	200.0	10	24	45	98	123	304	425	594	780	1050	1563	2188
	750	150.0	7.9	19	35	74	96	229	325	450	587	863	1275	1688

*Requires forced feed lubrication.

Thermal Capacity (kW)

Nominal Transmission Ration i_N	n1	Gear unit Size											
		11	13	15	17	18	20	21	22	23	24	25	26
		Thermal Capacity P_1 (kW) for gear unit without cooling											
1.25 to 2.8	1500	29	46	74	115	144	219	281	350	444			
	1000	26	43	68	109	140	209	273	344	438	550	675	860
	750	25	40	64	101	129	200	264	338	431	538	663	810
3.15 to 5	1500	23	39	64	103	128	200	275	338	431	550	700	863
	1000	20	36	56	99	118	189	263	325	419	531	669	813
	750	18	28	50	98	108	175	250	300	400	519	656	800
		Thermal Capacity P_2 (kW) for gear unit with fan cooling											
1.25 to 2.8	1500	53	81	128	198	250	388	500	625	800			
	1000	44	69	106	165	225	350	406	528	700	863	1075	1340
	750	38	63	94	150	206	325	388	488	656	788	1013	1280
3.15 to 5	1500	48	75	115	190	238	375	473	594	769	981	1225	1556
	1000	35	54	94	153	188	300	400	519	656	856	1044	1313
	750	30	46	81	138	169	300	356	450	594	756	956	1250
		Thermal Capacity P_3 (kW) for gear unit with cooling coil											
1.25 to 5	1500	126	180	265	361	419	588	694	813	956	1155		
	1000	120	176	255	356	415	571	679	804	950	1138	1338	1420
	750	119	175	245	339	410	563	670	800	938	1113	1325	1390
		Thermal Capacity P_4 (kW) for gear unit with fan and cooling coil											
1.25 to 5	1500	145	215	326	472	569	836	1033	1251	1540	1810		
	1000	133	201	300	441	546	791	950	1173	1461	1785	2161	2450
	750	127	194	282	413	522	761	925	1138	1418	1706	2100	2325

Type - H2

Helical - Double Stage

Nominal Power Rating (kW)

i_N	n1	n2	Gear unit Size												
			14	15	16	17	18	19	20	21	22	23	24	25	26
5.6	1500	267.9	54	77	112	136	226	318	461	617	829	982*	1547*	2319*	3230*
	1000	178.6	36	52	75	91	151	212	308	411	553	748	1112	1546	2153
	750	133.9	27	39	56	68	113	159	231	308	415	603	834	1159	1615
6.3	1500	238.1	45	65	85	123	189	256	371	481	663	898*	1378*	1813*	2525*
	1000	158.7	30	44	57	82	130	181	280	364	500	681	1000	1375	1973
	750	119.0	23	31	43	62	93	138	214	288	388	553	750	1125	1484
7.1	1500	211.3	44	62	76	109	182	244	364	475	613	841	1287*	1688*	2470*
	1000	140.8	29	42	51	72	121	169	246	332	456	624	900	1250	1769
	750	105.6	22	30	38	54	89	125	185	263	344	469	688	988	1330
8	1500	187.5	38	57	70	96	163	234	332	438	585	766	1150	1625*	2275*
	1000	125.0	26	39	46	64	111	156	223	319	419	544	850	1188	1607
	750	93.8	19	28	35	48	85	120	168	238	313	408	650	888	1208
9	1500	166.7	35	52	62	85	163	231	293	400	563	707	1025	1375	1950*
	1000	111.1	24	35	42	57	108	156	203	269	375	507	775	1000	1426
	750	83.3	18	25	31	43	84	119	153	213	305	380	625	813	1071
10	1500	150.0	30	46	56	78	130	188	263	364	488	654	950	1313	1846*
	1000	100.0	20	31	37	52	88	124	175	244	331	437	675	938	1275
	750	75.0	15	23	28	39	63	100	132	194	268	328	525	750	958
11.2	1500	133.9	28	42	49	71	124	175	234	325	429	610	850	1125	1625
	1000	89.3	19	27	33	48	85	119	162	219	306	408	625	850	1131
	750	67.0	14	20	25	36	61	90	122	163	231	306	500	625	849
12.5	1500	120.0	25	38	44	62	104	143	214	293	416	532	800	1063	1526
	1000	80.0	17	25	29	41	68	100	143	206	286	355	563	750	1021
	750	60.0	13	19	22	31	53	73	107	156	206	267	413	563	767
14	1500	107.1	22	34	40	54	88	130	195	267	364	459	688	888	1235
	1000	71.4	15	22	26	36	60	91	131	189	254	306	500	650	903
	750	53.6	11	16	20	27	44	65	98	138	181	230	363	525	678
16	1500	93.8	19	29	36	49	78	117	169	241	325	407	613	813	1118
	1000	62.5	13	20	24	33	52	78	115	163	219	272	438	613	776
	750	46.9	9.8	14	18	25	40	59	86	118	163	204	338	463	583
18	1500	83.3	17	25	32	43	72	95	150	182	286	361	538	715	962
	1000	55.6	11	18	21	29	49	66	100	122	189	241	396	513	702
	750	41.7	8.3	13	16	22	38	50	80	96	138	181	313	425	530
20	1500	75.0	15		28	40		95	138		242	324		650	910
	1000	50.0	10		19	27		64	93		161	216		475	629
	750	37.5	7.7		14	20		48	73		121	162		388	472
22.4	1500	67.0	14		26	35		85	124		231	291		613	850
	1000	44.6	9.0		18	24		55	83		156	194		438	567
	750	33.5	6.7		14	18		43	65		124	146		364	426

*Requires forced feed lubrication.

Thermal Capacity (kW)

Nominal Transmission Ration i_N	n1	Gear unit Size												
		14	15	16	17	18	19	20	21	22	23	24	25	26
		Thermal Capacity P_1 (kW) for gear unit without cooling												
5.6 to 14	1500	37	52	59	72	104	126	159	207	258	278	386	489	606
	1000	32	46	57	63	94	114	157	197	240	293	360	481	612
	750	29	40	48	60	84	113	139	178	225	298	353	518	601
16 to 22.4	1500	32	44	50	64	81	104	133	178	231	240	337	439	548
	1000	28	38	43	55	80	105	135	166	219	266	350	466	551
	750	25	31	39	47	70	94	125	148	203	247	344	449	513
		Thermal Capacity P_2 (kW) for gear unit with fan cooling												
5.6 to 14	1500	60	84	95	116	167	202	256	333	416	448	621	788	976
	1000	49	69	85	95	141	172	236	297	362	442	544	727	924
	750	40	56	67	85	118	158	195	250	315	418	494	725	842
16 to 22.4	1500	54	74	83	107	135	173	221	295	383	399	559	728	909
	1000	43	57	65	83	120	158	203	250	330	402	529	703	832
	750	34	44	55	66	98	132	175	207	284	346	482	628	718
		Thermal Capacity P_3 (kW) for gear unit with cooling coil												
5.6 to 22.4	1500	184	215	228	236	292	311	349	394	435	443	695	853	1048
	1000	169	203	222	224	282	294	339	380	429	464	546	659	859
	750	152	175	193	215	260	288	316	354	412	480	526	713	834
		Thermal Capacity P_4 (kW) for gear unit with fan and cooling coil												
5.6 to 22.4	1500	203	252	275	306	405	460	550	672	799	842	1225	1534	1893
	1000	181	228	262	276	372	418	527	629	743	864	1044	1344	1724
	750	159	195	222	259	333	402	468	563	685	861	988	1408	1639

Nominal Power Rating (kW) — Helical - Triple Stage — Type - H3

i_N	n1	n2	Gear unit Size										
			16	17	18	19	20	21	22	23	24	25	26
20	1500	75.0			74			181			481		
	1000	50.0			49			123			363		
	750	37.5			38			96			300		
22.4	1500	67.0			65			163			438		
	1000	44.6			44			114			331		
	750	33.5			33			86			269		
25	1500	60.0	24	33	55	78	104	150	208	257	413	563	754*
	1000	40.0	16	21	38	53	71	104	143	171	319	394	506
	750	30.0	12	15	28	39	54	75	109	129	244	300	378
28	1500	53.6	21	29	50	70	94	131	181	231	388	506	680*
	1000	35.7	14	18	34	48	68	90	128	154	288	356	454
	750	26.8	11	14	25	35	51	68	96	115	206	269	341
31.5	1500	47.6	19	25	41	60	89	119	163	205	363	481	601*
	1000	31.7	13	17	28	41	59	79	109	137	250	319	401
	750	23.8	9.4	13	21	31	43	61	81	103	188	238	301
35.5	1500	43.3	17	23	40	58	77	109	154	185	350	431	543
	1000	28.2	11	15	28	38	52	73	103	124	231	288	362
	750	21.1	8.4	11	20	29	39	54	77	93	175	219	272
40	1500	37.5	15	21	38	54	70	98	136	166	300	388	484
	1000	25.0	9.9	15	26	35	47	65	91	111	206	256	323
	750	18.8	7.4	10	19	28	35	51	68	83	156	194	242
45	1500	33.3	13	18	33	45	63	86	122	149	275	344	436
	1000	22.2	8.8	13	21	31	42	58	82	100	188	225	291
	750	16.7	6.6	8.6	16	23	31	45	61	75	144	175	218
50	1500	30.0	12	15	29	40	56	78	112	130	250	306	380
	1000	20.0	7.9	11	20	28	37	54	75	87	169	206	254
	750	15.0	5.9	8.0	15	20	28	40	56	65	125	150	190
56	1500	26.8	11	14	25	35	49	69	99	117	219	275	339
	1000	17.9	7.1	9.6	18	24	34	48	66	78	150	181	226
	750	13.4	5.3	7.0	13	19	26	35	50	59	114	138	169
63	1500	23.8	9.4	12	21	30	44	59	82	105	188	244	306
	1000	15.9	6.3	7.6	14	20	30	39	54	70	131	163	204
	750	11.9	4.7	6.1	11	15	23	29	40	53	98	123	153
71	1500	21.1	8.4	10	19	26	40	52	73	99	169	219	270
	1000	14.1	5.6	7.1	13	18	27	35	49	66	115	144	180
	750	10.6	4.2	5.4	9.4	14	20	25	36	50	86	108	135
80	1500	18.8	7.4	9.1	18	24	36	45	69	88	150	194	258
	1000	12.5	5.0	6.5	11	16	24	30	43	59	103	125	172
	750	9.4	3.7	4.9	8.8	13	18	24	34	44	79	95	129
90	1500	16.7	6.6	8.5		21	32		58	79		175	230
	1000	11.1	4.4	5.9		14	22		39	53		115	153
	750	8.3	3.3	4.3		11	16		31	39		86	115
100	1500	15.0	5.9	8.5		21	28		55	71		168	207
	1000	10.0	4.0	5.9		14	19		37	47		112	138
	750	7.5	3.0	4.3		10	14		28	35		84	104
112	1500	13.4	5.3	7.4		19	26		48	62		144	183
	1000	8.9	3.5	5.1		12	17		32	41		94	122
	750	6.7	2.7	3.6		9.3	13		24	31		73	91

*Requires forced feed lubrication.

Thermal Capacity (kW)

Nominal Transmission Ration i_N	n1	Gear unit Size										
		16	17	18	19	20	21	22	23	24	25	26
		Thermal Capacity P_1 (kW) for gear unit without cooling										
20 to 35.5	1500	40	50	68	99	112	141	187	248	248	285	340
	1000	36	42	62	88	104	137	177	231	244	265	320
	750	30	38	54	78	92	119	154	217	227	242	305
40 to 112	1500	33	44	67	94	109	128	175	229	300	328	335
	1000	28	39	64	83	99	127	168	208	307	310	327
	750	28	34	53	77	86	115	140	177	279	295	318
		Thermal Capacity P_2 (kW) for gear unit with fan cooling										
20 to 35.5	1500	67	86	114	161	183	230	279	393	369	440	540
	1000	61	73	103	143	170	225	264	366	363	418	478
	750	56	67	95	130	156	197	244	339	339	399	447
40 to 112	1500	67	81	118	162	182	215	275	367	402	425	506
	1000	56	71	111	151	173	221	265	330	385	405	481
	750	54	63	96	142	150	206	241	298	365	385	451
		Thermal Capacity P_3 (kW) for gear unit with cooling coil										
20 to 112	1500	95	113	147	187	208	266	313	422	402	450	550
	1000	87	96	132	167	193	260	297	393	396	435	540
	750	72	85	116	148	171	224	259	368	368	425	520
		Thermal Capacity P_4 (kW) for gear unit with fan and cooling coil										
20 to 112	1500	125	154	204	278	312	395	483	659	631	700	834
	1000	114	131	184	247	289	386	458	614	622	650	815
	750	98	118	164	221	260	335	407	573	579	600	773

Type - H4 Helical - Quadruple Stage Nominal Power Rating (kW)

i_N	n1	n2	Gear unit Size								
			18	19	20	21	22	23	24	25	26
90	1500	16.7	17			45			138		
	1000	11.1	11			30			92		
	750	8.3	8.3			23			69		
100	1500	15.0	15			41			125		
	1000	10.0	9.9			27			83		
	750	7.5	7.4			20			62		
112	1500	13.4	13			36			114		
	1000	8.9	8.8			25			74		
	750	6.7	6.6			19			54		
125	1500	12.0	12	19	21	33	43	55	101	121	152
	1000	8.0	7.9	13	14	21	28	37	66	80	101
	750	6.0	5.9	9.5	11	16	21	28	50	60	76
140	1500	10.7	11	17	21	29	38	54	90	109	133
	1000	7.1	7.1	11	14	20	25	36	59	71	89
	750	5.4	5.3	8.3	10	15	19	27	45	55	66
160	1500	9.4	9.3	15	18	25	34	49	79	95	121
	1000	6.3	6.2	9.8	12	18	23	33	53	64	81
	750	4.7	4.6	7.4	9.0	13	17	24	40	49	61
180	1500	8.3	8.3	12	15	24	31	39	71	86	100
	1000	5.6	5.5	8.0	9.8	15	21	26	48	58	68
	750	4.2	4.1	6.0	7.3	12	16	19	36	44	51
200	1500	7.5	7.4	11	13	19	28	34	64	78	92
	1000	5.0	5.0	7.1	8.9	13	18	23	43	51	61
	750	3.8	3.7	5.3	6.7	10	14	17	26	38	44
225	1500	6.7	6.6	8.7	12	18	24	30	56	69	82
	1000	4.4	4.4	5.8	8.0	11	17	20	38	46	54
	750	3.3	3.3	4.3	6.0	8.8	12	15	29	28	41
250	1500	6.0	5.9	8.5	10	15	22	27	50	60	71
	1000	4.0	4.0	5.6	7.0	11	15	18	34	40	48
	750	3.0	3.0	4.2	5.2	8.1	11	14	25	30	36
280	1500	5.4	5.3	7.4	9.5	14	19	25	45	55	65
	1000	3.6	3.5	5.0	6.4	9.4	13	16	30	36	43
	750	2.7	2.7	3.7	4.8	6.9	9.7	12	23	28	32
315	1500	4.8	4.7	6.1	8.4	12	16	22	40	49	58
	1000	3.2	3.1	4.1	5.6	8.1	12	15	26	31	37
	750	2.4	2.4	3.0	4.2	6.3	8.8	11	20	25	29
355	1500	4.2	4.2	4.8	7.3	11	16	20	36	44	51
	1000	2.8	2.8	3.2	4.9	7.5	10	13	24	29	34
	750	2.1	2.1	2.4	3.7	5.6	7.8	9.9	18	21	25
400	1500	3.8	3.7	4.9	6.7	10	14	18	33	39	45
	1000	2.5	2.5	3.3	4.5	6.3	9.4	12	21	25	30
	750	1.9	1.9	2.5	3.3	5.0	7.0	8.9	13	19	23
450	1500	3.3	3.3	3.9	6.3	9.4	12	16	26	36	46
	1000	2.2	2.2	2.6	4.2	6.3	8.3	10	18	24	31
	750	1.7	1.7	1.9	3.2	4.4	6.2	7.8	14	18	21
500	1500	3.0		4.8	5.7		11	14		32	37
	1000	2.0		3.2	3.8		7.5	9.4		22	25
	750	1.5		2.4	2.8		5.6	7.0		16	20
560	1500	2.7		4.0	4.9		10	13		28	33
	1000	1.8		2.6	3.3		6.6	8.4		19	22
	750	1.3		2.0	2.5		5.0	6.3		15	17

Thermal Capacity (kW)

Nominal Transmission Ration i_N	n1	Gear unit Size								
		18	19	20	21	22	23	24	25	26
		Thermal Capacity P_1 (kW) for gear unit without cooling								
90 to 560	1500	25	40	46	65	82	107	139	161	190
	1000	23	37	40	54	73	87	124	143	164
	750	20	32	35	54	68	72	113	139	161

Nominal Power Rating (kW) Bevel Helical - Double Stage Type - B2/C2

i_N	n1	n2	Gear unit Size											
			11	13	15	17	18	20	21	22	23	24	25	26
5	1500	300			63		166		453			988*		
	1000	200			53		111		340			738*		
	750	150			39		84		264			613		
5.6	1500	268		26	59		164		440	545		988*	1787*	
	1000	179		18	47		111		338	366		738*	1207*	
	750	134		13	36		84		263	276		613	911	
6.3	1500	238	15	26	56	94	144	297	440	544	763*	988*	1613*	1850*
	1000	159	10	17	43	70	108	200	338	366	581	738*	1205*	1380*
	750	119	7.5	13	30	56	84	151	263	275	475	613	910	1030
7.1	1500	211	15	26	56	94	144	281	431	544	763*	988*	1475*	1793*
	1000	141	10	17	40	70	108	200	331	366	581	738*	1113*	1310*
	750	106	7.5	13	30	56	83	150	250	275	475	613	900	1030
8	1500	188	11	24	50	81	144	256	400	543	763*	938*	1350*	1792*
	1000	125	7.1	16	34	56	108	194	306	366	581	700*	1013*	1260*
	750	94	5.3	13	25	42	69	150	231	275	425	581	825	950
9	1500	167	9.2	23	45	80	125	238	363	494	675*	813*	1225*	1789*
	1000	111	6.2	15	30	53	95	181	275	357	494	638*	925*	1207*
	750	83	4.6	12	24	40	64	149	219	268	371	525	750	910
10	1500	150	8.0	20	40	74	115	206	319	431	586*	763*	1138*	1713*
	1000	100	5.4	14	28	49	78	152	244	319	392	581	775*	1188*
	750	75	4.1	10	21	37	58	115	194	239	295	475	638	888
11.2	1500	134	7.4	16	36	59	101	183	294	389	526*	700*	1050*	1500*
	1000	89	5.0	11	25	40	76	130	219	261	352	538	788	1009*
	750	67	3.8	8.0	19	31	51	98	175	196	264	438	588	758
12.5	1500	120	6.5	16	33	56	94	175	263	356	488	625*	950*	1225*
	1000	80	4.4	10	23	37	70	131	181	257	331	475	600	825
	750	60	3.1	7.8	16	28	45	95	138	188	238	338	456	625
14	1500	107	5.7	13	29	53	71	156	225	325	422	581	725*	975*
	1000	71	3.8	8.1	19	35	47	105	138	206	256	388	519	650
	750	54	2.9	6.1	14	27	35	75	100	144	181	294	388	500
16	1500	94	5.2	9.4	23	42	64	131	169	225	325	513	600	750*
	1000	63	3.5	6.3	14	28	40	79	101	151	188	313	438	513
	750	47	2.6	4.6	11	21	29	58	74	110	138	225	325	381
18	1500	83	4.1	7.5	16	33	58	114	151	225	282	439	578	720
	1000	56	2.8	4.9	11	22	39	76	101	150	188	293	385	480
	750	42	2.0	3.6	8.1	16	29	57	76	112	141	219	289	360
20	1500	75	3.8	7.0		33		103		225	254		520	648
	1000	50	2.5	4.7		22		68		149	169		347	432
	750	38	1.9	3.5		16		51		111	127		260	324
22.4	1500	67	3.5			29		92			227			579
	1000	45	2.4			19		60			151			386
	750	33	1.8			14		45			113			289

*Requires forced feed lubrication.

Thermal Capacity (kW)

Nominal Transmission Ration i_N	n1	Gear unit Size											
		11	13	15	17	18	20	21	22	23	24	25	26
		Thermal Capacity P_1 (kW) for gear unit without cooling											
5 to 11.2	1500	14	23	39	50	82	155	172	201	275	346	400	426
	1000	13	22	36	48	77	122	169	176	262	339	380	414
	750	11	20	32	46	69	108	163	154	257	325	360	412
12.5 to 22.4	1500	12	22	35	51	78	138	168	207	268	331	390	527
	1000	10	20	31	47	67	131	156	190	255	323	370	520
	750	8	18	29	43	63	125	150	188	249	317	350	513
		Thermal Capacity P_2 (kW) for gear unit with fan cooling											
5 to 11.2	1500	36	48	84	104	185	323	387	427	588	704	810	841
	1000	33	46	78	101	175	255	381	372	560	691	750	818
	750	28	40	69	95	148	212	326	299	500	624	700	774
12.5 to 22.4	1500	30	50	85	111	176	289	386	463	599	750	780	830
	1000	24	44	73	96	149	250	324	380	535	646	750	770
	750	20	41	67	87	139	239	312	375	523	635	700	750
		Thermal Capacity P_3 (kW) for gear unit with cooling coil											
5 to 22.4	1500	25	35	70	90	139	210	257	308	412	534	731	752
	1000	20	29	60	101	145	197	307	290	513	685	851	947
	750	20	35	69	90	140	204	251	333	392	522	732	908
		Thermal Capacity P_4 (kW) for gear unit with fan and cooling coil											
5 to 22.4	1500	37	53	97	122	203	344	408	468	637	792	900	1009
	1000	33	48	87	125	198	287	429	419	668	858	880	1089
	750	29	47	85	115	178	262	369	393	575	736	800	1047

Type - B3/C3

Bevel Helical - Triple Stage

Nominal Power Rating (kW)

i_N	n1	n2	Gear unit Size												
			14	15	16	17	18	19	20	21	22	23	24	25	26
20	1500	75.00		21			66			169			538*		
	1000	50.00		15			45			119			394		
	750	37.50		11			35			94			306		
22.4	1500	66.96		19	28		63	81		163	219*		500*	638*	
	1000	44.64		14	19		43	60		113	163		363	450	
	750	33.48		10	14		31	45		88	119		275	344	
25	1500	60.00	11	18	25	32	55	78	104	144	200*	259*	438*	563*	701*
	1000	40.00	8.0	12	17	21	38	53	69	100	138	173	319	394	468*
	750	30.00	5.9	8.8	13	16	29	40	52	75	106	130	244	300	351
28	1500	53.57	10	14	23	28	46	60	93	115	175*	233*	400	506*	625*
	1000	35.71	6.9	10	15	19	31	43	62	83	118	155	281	356	420*
	750	26.79	5.1	7.5	11	14	24	33	47	63	89	117	213	269	315
31.5	1500	47.62	8.8	13	16	25	41	55	86	106	150*	209*	363	481*	564*
	1000	31.75	6.0	8.8	11	17	28	39	58	74	104	140	250	319	377*
	750	23.81	4.5	6.9	8.2	13	21	29	43	55	78	105	188	238	283
35.5	1500	43.25	8.1	12	18	22	38	50	74	96	138	186*	325	431	500*
	1000	28.17	5.4	8.1	12	15	25	35	49	66	94	124	225	288	340*
	750	21.13	4.0	6.0	9.1	11	19	26	37	50	70	93	169	219	250
40	1500	37.50	7.5	11	16	20	34	45	65	86	123	162	294	388	450*
	1000	25.00	4.9	6.9	11	13	23	31	43	59	84	120	200	269	330
	750	18.75	3.6	5.5	8.0	10	18	24	32	45	65	82	156	194	230
45	1500	33.33	6.3	9.4	12	18	30	41	63	80	113	146	269	344	400*
	1000	22.22	4.4	6.3	8.0	12	20	28	41	53	75	97	181	225	265
	750	16.67	3.4	5.0	6.0	8.8	15	22	33	40	58	74	138	175	205
50	1500	30.00	5.8	8.8	13	16	26	38	53	71	100	130	244	306	360*
	1000	20.00	3.9	5.8	8.7	10	18	25	36	48	68	87	163	206	240
	750	15.00	3.0	4.4	6.6	7.9	14	19	27	36	51	65	124	150	180
56	1500	26.79	5.1	7.5	12	14	24	33	47	63	89	117	213	275	320
	1000	17.86	3.5	5.3	7.7	9.5	16	23	31	43	61	78	144	181	215
	750	13.39	2.6	3.9	5.7	7.1	13	18	23	33	46	59	110	138	165
63	1500	23.81	4.6	6.9	8.5	13	21	29	44	55	79	105	188	244	285
	1000	15.87	3.1	4.6	5.5	8.4	15	21	30	38	54	70	131	163	190
	750	11.90	2.4	3.5	4.2	6.4	11	16	23	29	40	52	98	123	145
71	1500	21.13	4.0	6.0	9.1	11	19	26	37	50	70	93	169	219	250
	1000	14.08	2.8	4.1	6.1	7.5	13	18	25	34	46	62	101	144	166
	750	10.56	2.1	3.1	4.6	5.6	9.4	15	19	25	34	47	74	108	125
80	1500	18.75	2.9		7.5	10		24	32		69	81		200	218
	1000	12.50	2.5		5.3	6.7		17	22		46	54		135	146
	750	9.38	1.9		3.9	5.0		13	16		34	41		101	110
90	1500	16.67	2.9		5.7	8.9		22	33		58	73		176	197
	1000	11.11	1.9		3.8	5.9		15	21		36	49		117	131
	750	8.33	1.4		2.9	4.4		11	16		26	36		85	99
100	1500	15.00	2.7			7.9			26			63			174
	1000	10.00	1.8			5.2			16			39			106
	750	7.50	1.3			3.9			12			29			78

*Requires forced feed lubrication.

Thermal Capacity (kW)

Nominal Transmission Ration i_N	n1	Gear unit Size												
		14	15	16	17	18	19	20	21	22	23	24	25	26
		Thermal Capacity P_1 (kW) for gear unit without cooling												
20 to 35.5	1500	26	33	42	44	64	81	106	128	166	195	254	315	330
	1000	23	29	36	40	61	75	95	125	150	166	239	280	295
	750	21	25	33	36	56	69	87	119	148	158	229	260	285
40 to 100	1500	23	30	40	45	60	75	87	120	154	159	239	285	300
	1000	21	26	31	43	58	71	78	118	144	150	226	260	277
	750	19	24	30	38	53	68	78	115	138	140	213	240	265
		Thermal Capacity P_2 (kW) for gear unit with fan cooling												
20 to 35.5	1500	66	85	109	111	150	183	237	269	360	425	542	617	672
	1000	59	75	95	100	143	169	213	263	325	363	510	586	601
	750	58	73	90	95	138	156	193	237	288	313	451	527	535
40 to 100	1500	59	75	101	112	144	175	208	265	319	325	488	600	620
	1000	56	70	82	104	135	163	174	244	300	290	438	538	580
	750	54	65	81	94	125	150	174	225	275	270	388	513	520
		Thermal Capacity P_3 (kW) for gear unit with cooling coil												
20 to 100	1500	89	105	126	129	176	207	261	310	391	368	461	500	584
	1000	85	102	116	119	167	200	235	300	375	324	445	475	522
	750	84	96	111	110	150	188	220	287	370	313	436	450	517
		Thermal Capacity P_4 (kW) for gear unit with fan and cooling coil												
20 to 100	1500	130	160	199	204	281	339	435	509	660	711	905	1111	1141
	1000	121	148	178	187	268	320	391	495	611	614	860	1055	1021
	750	117	140	168	174	248	297	360	463	580	564	803	1000	1011

Nominal Power Rating (kW) Bevel Helical - Quadruple Stage Type - B4/C4

i_N	n1	n2	Gear unit Size									
			17	18	19	20	21	22	23	24	25	26
80	1500	18.8		18			48			154		
	1000	12.5		12			32			103		
	750	9.4		9			24			77		
90	1500	16.7		16			42			137		
	1000	11.1		10			28			91		
	750	8.3		8			21			69		
100	1500	15.0		14	19		38	51		123	164	
	1000	10.0		9	13		25	34		81	105	
	750	7.5		7	10		19	26		63	80	
112	1500	13.4	7.1	12	16	24	34	46	59	108	138	160
	1000	8.9	4.8	8.8	12	16	23	31	39	75	88	105
	750	6.7	3.6	6.3	8.8	12	18	24	29	55	66	83
125	1500	12.0	6.5	11	15	23	30	41	64	98	121	160
	1000	8.0	4.3	7.5	11	15	20	29	43	66	81	107
	750	6.0	3.3	5.8	8.1	11	15	21	32	50	60	80
140	1500	10.7	5.8	10	14	19	28	36	57	88	109	145
	1000	7.1	3.8	6.9	9.4	12	19	26	38	60	73	97
	750	5.4	2.9	5.1	6.9	9.4	14	20	28	45	55	73
160	1500	9.4	5.3	9.4	13	17	25	34	41	79	95	115
	1000	6.3	3.5	6.1	8.6	11	16	23	27	53	64	75
	750	4.7	2.6	4.5	6.3	8.4	13	18	21	40	49	58
180	1500	8.3	4.7	8.1	11	15	21	30	37	71	86	100
	1000	5.6	3.1	5.4	7.5	9.7	15	20	25	48	58	68
	750	4.2	2.3	4.0	5.6	7.3	11	15	19	36	44	51
200	1500	7.5	4.1	7.3	10	13	19	28	33	64	78	92
	1000	5.0	2.8	4.8	6.9	8.9	13	18	22	43	51	61
	750	3.8	2.1	3.6	5.2	6.7	10	14	17	33	38	44
225	1500	6.7	3.7	6.3	8.8	12	18	24	36	56	69	90
	1000	4.4	2.4	4.3	5.9	7.8	11	16	24	38	46	60
	750	3.3	1.9	3.3	4.5	5.8	8.8	12	18	29	35	45
250	1500	6.0	3.3	5.8	8.1	12	15	21	32	50	60	81
	1000	4.0	2.2	3.9	3.9	7.5	11	15	21	34	40	54
	750	3.0	1.6	2.9	2.9	5.6	8.1	11	16	25	30	41
280	1500	5.4	2.9	4.3	6.9	9.3	14	19	28	45	55	72
	1000	3.6	1.9	2.9	4.8	6.2	9.4	13	19	30	36	48
	750	2.7	1.4	2.0	3.4	4.7	6.9	9.9	14	23	28	36
315	1500	4.8	2.6	3.9	6.3	8.4	12	18	26	40	49	65
	1000	3.2	1.8	2.6	4.3	5.6	8.1	11	17	26	31	43
	750	2.4	1.3	1.9	3.2	4.2	6.3	8.8	13	20	25	32
355	1500	4.2	2.3	3.5	5.8	8.1	11	14	18	29	44	49
	1000	2.8	1.6	2.4	3.8	5.4	7.5	9.4	12	20	29	33
	750	2.1	1.2	1.6	2.9	4.0	5.5	6.9	9.1	15	21	25
400	1500	3.8	2.1	3.0	4.8	6.3	9.4	11	16	24	35	43
	1000	2.5	1.4	1.9	3.1	4.1	6.3	7.5	11	16	24	29
	750	1.9	1.0	1.5	2.4	3.1	4.6	5.6	8.1	12	18	21
450	1500	3.3	1.6		3.8	5.8		11	18		35	44
	1000	2.2	1.1		2.5	3.9		7.5	12		23	30
	750	1.7	0.9		1.9	2.9		5.6	8.9		18	21
500	1500	3.0	1.6		3.6	4.8		8.8	16		28	31
	1000	2.0	1.1		2.4	3.1		5.8	11		19	21
	750	1.5	0.9		1.8	2.4		4.3	8.0		14	15
560	1500	2.7	1.4		3.2	4.6		7.5	14		25	28
	1000	1.8	1.0		2.1	3.1		5.0	9.0		16	19
	750	1.3	0.8		1.6	2.3		3.8	6.8		13	14

Thermal Capacity (kW)

Nominal Transmission Ration i_N	n1	Gear unit Size									
		17	18	19	20	21	22	23	24	25	26
		Thermal Capacity P_1 (kW) for gear unit without cooling									
80 to 560	1500	20	28	35	41	56	75	76	138	177	206
	1000	17	23	30	36	50	69	66	127	148	178
	750	17	20	29	36	44	56	62	118	142	177

Actual Ratio - Helical Type - H1, H2, H3, H4

Type	i_N	Gear unit Size														
		11	13	14	15	16	17	18	19	20	21	22	23	24	25	26
H1	1.25	1.21	1.24	-	1.25	-	1.26	1.23	-	1.25	1.26	1.25	-	-	-	-
	1.4	1.38	1.39	-	1.35	-	1.39	1.42	-	1.38	1.40	1.40	-	-	-	-
	1.6	1.58	1.61	-	1.58	-	1.61	1.59	-	1.58	1.61	1.61	1.61	1.59	1.56	-
	1.8	1.82	1.82	-	1.79	-	1.78	1.76	-	1.82	1.77	1.77	1.77	1.83	1.78	1.81
	2	1.95	2.00	-	2.00	-	1.95	2.00	-	1.95	2.00	2.00	2.00	2.00	1.95	2.04
	2.24	2.29	2.24	-	2.25	-	2.26	2.22	-	2.26	2.21	2.24	2.24	2.24	2.20	2.27
	2.5	2.45	2.50	-	2.44	-	2.45	2.41	-	2.43	2.53	2.53	2.53	2.45	2.50	2.48
	2.8	2.78	2.83	-	2.75	-	2.78	2.71	-	2.79	2.75	2.72	2.80	2.67	2.85	2.79
	3.15	3.11	3.18	-	3.06	-	3.25	3.12	-	3.24	3.06	3.19	3.17	3.05	3.10	3.14
	3.55	3.53	3.53	-	3.50	-	3.75	3.53	-	3.65	3.50	3.53	3.69	3.53	3.53	3.62
	4	4.12	3.88	-	3.94	-	4.12	3.89	-	4.12	3.90	4.00	4.06	3.81	4.00	4.11
	4.5	4.47	4.38	-	4.44	-	4.61	4.50	-	4.59	4.39	4.45	4.56	4.38	4.38	4.59
	5	5.06	5.00	-	5.00	-	5.28	4.88	-	5.11	5.00	5.00	5.05	4.82	5.00	5.06
H2	5.6	-	-	5.31	5.56	5.56	5.89	5.57	5.65	5.80	5.57	5.57	5.69	5.68	5.60	5.78
	6.3	-	-	6.06	6.13	6.44	6.51	6.32	6.35	6.37	6.17	6.48	6.31	6.26	6.43	6.61
	7.1	-	-	6.93	6.79	7.29	7.43	7.06	7.16	7.39	7.00	7.13	7.21	7.06	7.09	7.38
	8	-	-	7.95	7.78	8.00	8.45	7.94	7.78	8.16	7.78	7.82	8.28	7.80	8.00	8.13
	9	-	-	8.54	8.75	8.94	9.49	8.60	8.95	8.96	8.44	9.00	8.89	8.93	8.95	9.18
	10	-	-	10.00	9.68	10.00	10.38	9.71	10.12	10.38	9.47	10.22	10.31	9.71	10.11	10.27
	11.2	-	-	10.72	10.91	11.33	11.39	10.80	11.00	11.24	10.91	11.06	11.06	10.80	10.89	11.59
	12.5	-	-	12.15	12.03	12.71	13.06	12.35	12.75	12.75	12.35	12.47	12.71	12.35	12.75	12.85
	14	-	-	13.59	13.56	14.12	14.86	13.92	13.88	14.91	13.61	14.12	14.74	13.76	14.12	14.53
	16	-	-	15.44	15.75	15.50	16.27	15.69	16.00	17.21	15.75	16.00	16.61	15.49	16.00	16.92
	18	-	-	18.01	17.09	17.50	18.44	17.65	18.00	18.89	17.09	17.78	18.76	17.65	17.80	18.62
	20	-	-	19.57	-	20.00	20.17	19.62	20.00	21.16	19.50	20.00	20.90	19.65	20.00	20.90
	22.4	-	-	22.13	-	22.12	22.77	22.11	22.75	24.22	21.49	22.12	23.28	21.90	23.00	23.17
H3	25	-	-	-	-	25.03	24.50	24.91	25.31	24.14	24.87	25.26	26.40	24.64	25.17	26.13
	28	-	-	-	-	27.48	27.65	27.45	29.18	27.03	27.79	28.63	29.41	27.45	28.52	28.96
	31.5	-	-	-	-	31.02	31.15	30.94	32.82	30.94	30.63	31.81	33.09	30.59	31.73	32.82
	35.5	-	-	-	-	34.59	36.01	34.86	34.71	35.42	35.44	35.71	36.62	34.42	36.08	36.36
	40	-	-	-	-	37.98	39.39	38.51	40.00	38.90	37.79	40.47	40.81	38.51	40.89	40.81
	45	-	-	-	-	42.88	44.45	43.40	45.00	43.56	47.64	44.97	45.46	42.91	45.49	45.24
	50	-	-	-	-	50.66	51.23	48.90	49.00	48.75	48.18	49.00	52.11	48.29	49.83	51.95
	56	-	-	-	-	55.62	56.04	52.71	56.47	40.83	54.90	55.53	58.06	52.71	56.47	58.31
	63	-	-	-	-	62.79	63.24	60.31	63.53	59.94	60.49	61.70	64.68	60.31	62.82	64.63
	71	-	-	-	-	71.76	70.70	67.97	70.59	68.82	70.00	69.41	68.41	67.20	70.59	73.24
	80	-	-	-	-	77.23	83.07	76.59	80.00	75.57	75.95	80.00	77.24	75.63	80.00	76.68
	90	-	-	-	-	84.79	93.75	89.42	90.00	84.63	94.14	88.89	86.07	87.35	89.00	86.07
	100	-	-	-	-	95.74	105.61	100.78	100.00	96.86	106.57	100.00	95.88	97.16	100.00	95.41
	112	-	-	-	-	109.41	114.75	113.55	110.59	105.94	117.43	113.75	110.32	111.18	110.59	108.11
H4	125	-	-	-	-	-	-	122.88	123.05	122.08	122.00	128.72	117.19	125.07	126.32	130.13
	140	-	-	-	-	-	-	138.48	141.82	138.41	134.43	145.88	134.61	139.37	143.16	144.22
	160	-	-	-	-	-	-	156.04	159.55	161.94	155.56	162.09	156.12	156.84	159.26	163.11
	180	-	-	-	-	-	-	173.30	170.06	186.86	171.16	176.47	175.99	170.03	178.55	189.94
	200	-	-	-	-	-	-	195.31	196.00	205.18	188.60	200.00	197.64	189.47	202.35	209.06
	224	-	-	-	-	-	-	220.07	220.50	229.77	218.24	222.22	223.14	213.22	225.12	234.65
	250	-	-	-	-	-	-	247.06	249.07	262.99	236.78	249.13	248.64	247.06	244.98	260.12
	280	-	-	-	-	-	-	278.43	287.06	287.90	268.05	282.35	276.97	275.29	277.65	294.74
	315	-	-	-	-	-	-	313.73	322.94	326.90	295.35	313.73	307.08	309.80	308.88	333.85
	355	-	-	-	-	-	-	352.94	358.82	374.17	341.76	352.94	342.17	352.94	347.06	370.09
	400	-	-	-	-	-	-	386.38	379.72	409.61	388.89	390.31	381.17	400.81	400.00	419.35
	450	-	-	-	-	-	-	434.67	437.65	432.73	421.93	442.35	433.52	456.62	445.00	440.92
	500	-	-	-	-	-	-	-	492.35	484.59	-	491.50	483.07	-	500.00	494.88
	560	-	-	-	-	-	-	-	547.06	554.65	-	552.94	538.12	-	568.75	548.60

Actual Ratio - Bevel Helical Type - B2, B3, B4/C2, C3, C4

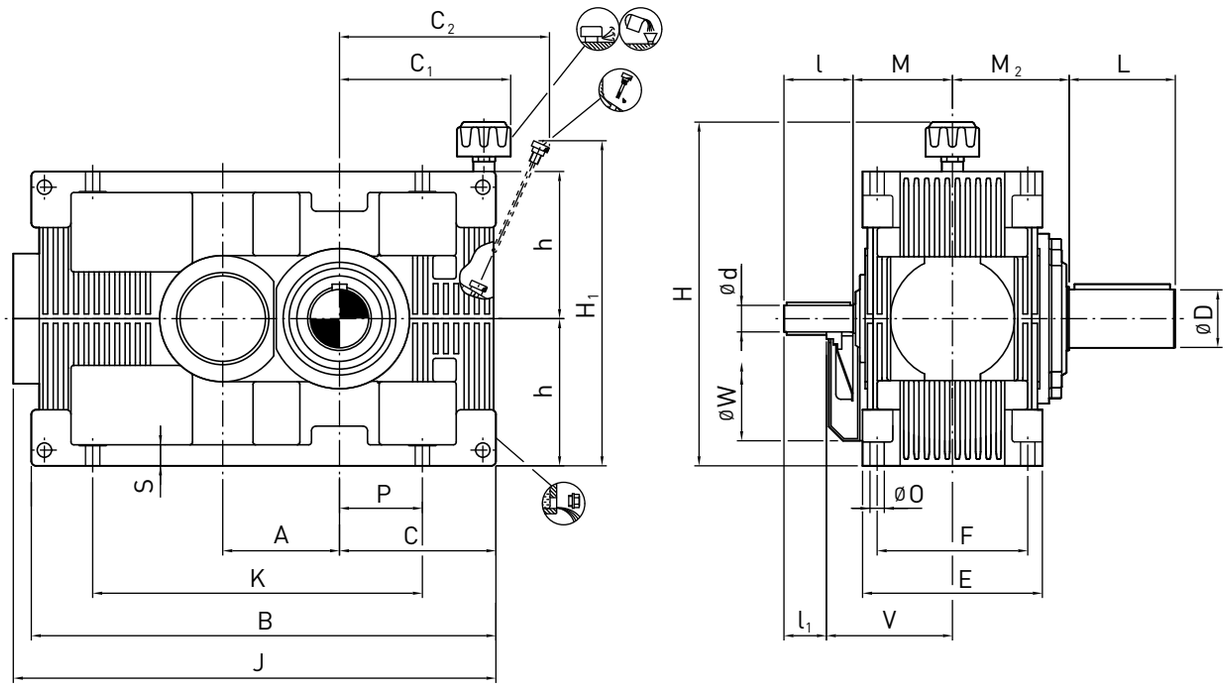
Type	i_N	Gear unit Size														
		11	13	14	15	16	17	18	19	20	21	22	23	24	25	26
B2 C2	5	-	-	-	4.88	-	-	4.82	-	-	5.06	-	-	4.91	-	-
	5.6	-	5.67	-	5.50	-	-	5.41	-	-	5.50	5.44	-	5.33	5.70	-
	6.3	6.21	6.35	-	6.12	-	6.50	6.24	-	6.47	6.12	6.38	6.33	6.11	6.19	6.29
	7.1	7.06	7.06	-	7.00	-	7.50	7.06	-	7.29	7.00	7.06	7.38	7.06	7.05	7.24
	8	8.24	7.75	-	7.89	-	8.24	7.78	-	8.24	7.80	8.00	8.12	7.63	8.00	8.21
	9	8.95	8.75	-	8.89	-	9.22	9.00	-	9.18	8.78	8.90	9.11	8.75	8.75	9.18
	10	10.12	10.00	-	9.75	-	10.56	9.83	-	10.22	9.75	10.00	10.10	9.83	10.00	10.13
	11.2	10.88	10.79	-	10.99	-	11.56	10.83	-	11.50	10.86	11.14	11.44	10.62	11.14	11.50
	12.5	12.46	12.19	-	12.38	-	12.85	12.54	-	12.78	12.23	12.40	12.69	12.19	12.19	12.78
	14	14.09	13.93	-	14.00	-	14.70	14.12	-	14.24	14.00	13.93	14.07	14.12	13.93	14.10
	16	15.15	15.50	-	15.78	-	16.10	15.56	-	16.02	15.60	16.00	15.94	15.25	16.00	16.02
	18	17.89	17.50	-	17.78	-	18.44	18.00	-	18.35	17.56	17.80	18.22	17.50	17.50	18.35
	20	20.24	20.00	-	18.89	-	21.11	18.96	-	20.44	18.96	20.00	20.20	19.17	20.00	20.25
	22.4	21.75	-	-	21.29	21.59	23.11	21.37	22.29	23.00	21.94	22.29	22.89	21.58	22.29	23.00
B3 C3	25	-	-	25.09	24.72	24.38	25.69	24.07	25.07	26.31	23.80	24.76	26.13	24.58	24.79	25.94
	28	-	-	27.26	27.12	27.86	28.10	27.22	27.86	29.47	27.22	27.86	29.11	27.53	27.86	29.11
	31.5	-	-	30.83	30.57	30.81	31.71	30.68	31.69	33.73	31.50	30.81	32.43	30.98	32.04	32.27
	35.5	-	-	33.13	35.50	35.00	35.73	34.57	36.00	36.92	34.18	35.56	36.49	35.29	35.60	36.57
	40	-	-	39.14	37.77	40.00	40.35	37.92	40.00	42.31	37.92	40.00	41.80	38.34	40.00	41.80
	45	-	-	44.26	42.58	44.24	45.53	42.73	45.50	48.43	43.88	44.24	46.57	43.15	46.00	46.34
	50	-	-	47.58	49.45	48.75	51.30	48.15	50.14	53.02	47.60	49.52	52.39	49.16	49.59	52.51
	56	-	-	54.52	54.24	55.71	56.20	54.44	55.71	58.94	54.44	55.71	58.23	55.06	55.71	58.23
	63	-	-	61.65	61.14	61.61	63.42	61.36	63.38	67.46	63.00	61.61	64.86	61.96	64.07	64.55
	71	-	-	66.27	71.00	70.00	71.45	69.14	72.00	73.85	68.35	71.11	72.97	70.59	71.20	73.14
	80	-	-	78.29	-	80.00	80.69	75.14	80.00	84.63	76.47	80.00	83.61	77.43	80.00	83.61
	90	-	-	88.53	-	88.47	91.07	87.26	91.00	96.86	84.26	88.47	93.14	86.28	92.00	92.68
	100	-	-	95.16	-	-	102.60	98.32	96.68	106.04	97.50	98.32	104.78	97.09	98.32	105.02
B4 C4	112	-	-	-	-	-	112.53	110.61	111.43	115.53	105.78	111.43	118.61	110.61	111.43	116.37
	125	-	-	-	-	-	123.26	125.29	125.36	133.31	120.99	123.81	133.71	123.88	123.96	135.50
	140	-	-	-	-	-	139.69	141.18	139.29	146.38	140.00	139.29	150.96	139.41	139.29	149.15
	160	-	-	-	-	-	152.79	158.82	158.44	163.92	151.90	154.03	168.21	158.82	160.18	167.40
	180	-	-	-	-	-	172.43	174.52	180.00	187.62	168.52	177.78	187.38	172.55	178.00	185.57
	200	-	-	-	-	-	194.26	196.64	200.00	205.39	195.00	200.00	210.80	194.18	200.00	210.27
	224	-	-	-	-	-	219.39	221.22	227.50	235.37	211.57	221.18	216.76	221.22	230.00	214.16
	250	-	-	-	-	-	247.60	250.59	250.71	269.40	241.98	247.62	241.53	247.76	247.93	240.37
	280	-	-	-	-	-	278.94	282.35	278.57	294.92	280.00	278.57	269.06	278.82	278.57	266.46
	315	-	-	-	-	-	305.58	317.65	316.88	327.84	303.79	308.07	301.92	317.65	320.36	298.30
	355	-	-	-	-	-	344.86	346.52	360.00	375.24	343.64	355.56	336.42	342.19	356.00	334.80
	400	-	-	-	-	-	388.52	389.84	400.00	410.78	372.83	400.00	374.76	389.84	400.00	420.55
	450	-	-	-	-	-	438.78	-	455.00	470.74	-	442.35	433.52	-	460.00	428.33
	500	-	-	-	-	-	495.19	-	490.91	538.80	-	490.91	483.07	-	490.91	480.75
	560	-	-	-	-	-	557.87	-	558.41	589.84	-	542.89	538.12	-	564.55	532.92

Type - H1HN

Horizontal Mounting

Helical Gear Unit

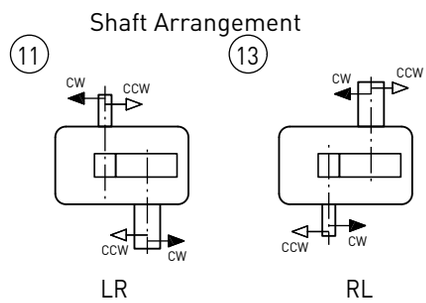
Single Stage
Size 11 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 1.25 - 3.55 d	l	l1	Input Shaft i = 4 - 5 d	l	l1	M	V	W	Output Shaft D	L	M2	Average Weight [kg]	Oil Quantity [Litres]
11	25	100	50	20	100	50	150	200	180	32	60	120	35	1.5
13	35	110	60	30	110	60	150	200	180	45	90	125	65	2.5
15	50	130	80	40	130	80	160	210	230	55	90	135	115	4
17	60	155	105	50	130	80	165	215	300	70	125	150	205	7
18	70	155	105	55	135	85	190	240	300	80	150	170	275	9

Shaft Arrangement



Size	Foundation A	B	C	C1 2)	C2 1)	E	F	h	H1 1)	H 2)	J	K	O	P	S
11	80	356	140	176	171	180	150	100	248	260	356	175	14	60	24
13	100	435	155	192	195	190	150	125	295	330	435	220	14	75	24
15	125	520	182	218	231	228	170	160	352	400	530	290	14	100	24
17	160	640	220	248	282	250	210	200	432	480	652	350	18	120	32
18	180	716	246	273	311	284	230	225	475	530	726	410	18	145	32

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

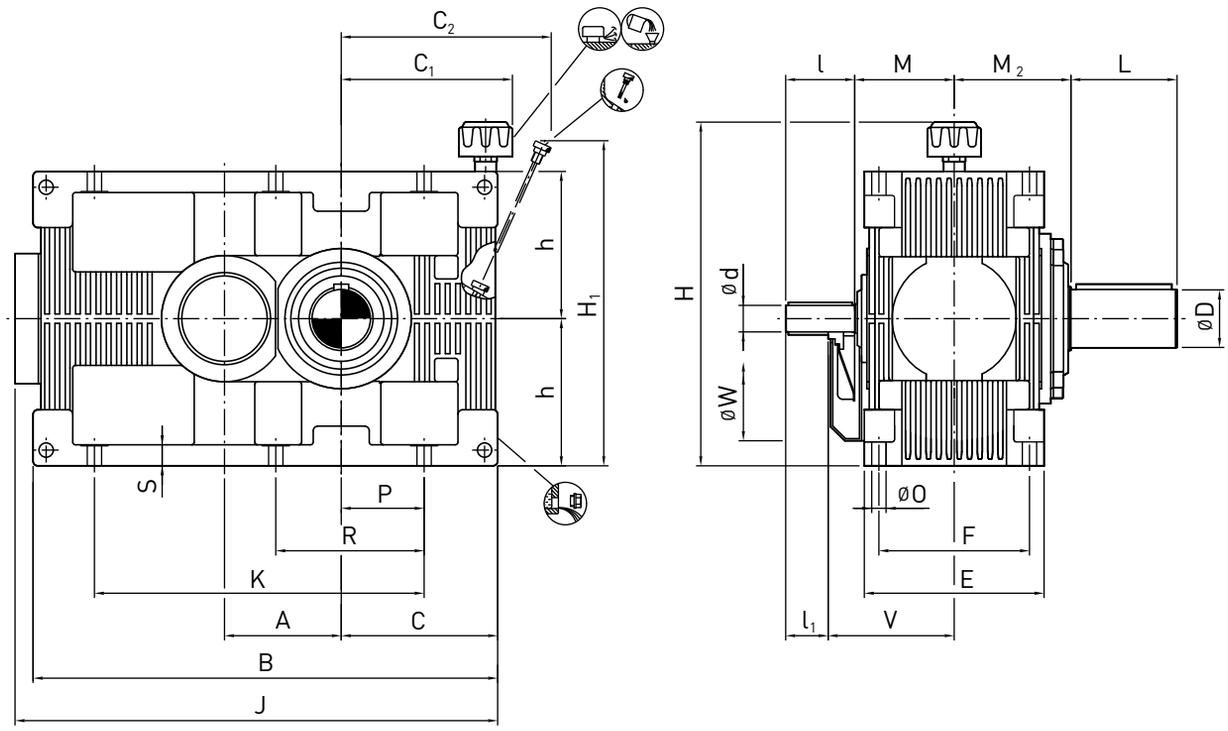
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Helical Gear Unit

Horizontal Mounting

Type - **H1HN**

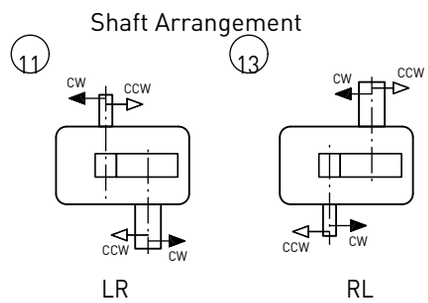
Single Stage
Size 20 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 1.25 - 3.55 d	l	l_1	Input Shaft i = 4 - 5 d	l	l_1	M	V	W	Output Shaft D	L	M_2	Average Weight [kg]	Oil Quantity [Litres]
20	85	180	130	70	155	105	215	265	380	100	175	210	495	18
21	95	180	130	80	180	130	260	310	530	110	180	220	665	25
22	105	220	170	90	180	130	270	320	530	120	200	230	900	36
23	115	220	170	95	180	130	280	330	650	140	225	260	1215	51
24	130	250	200	110	220	170	320	370	650	160	260	295	1630	69
25	145	250	200	120	220	170	360	410	650	170	270	305	2205	95
26	160	300	250	130	250	200	360	410	650	190	300	345	2975	130

Shaft Arrangement



Size	Foundation A	B	C	C_1 2)	C_2 1)	E	F	h	H_1 1)	H 2)	J	K	O	P	R	S
20	225	893	303	319	387	314	270	280	588	640	918	520	23	180		36
21	250	995	335	374	435	385	310	315	664	720	1010	570	27	195		45
22	280	1095	370	405	474	400	340	355	741	800	1110	630	27	215	370	45
23	315	1250	425	442	537	450	380	400	831	890	1260	705	33	240	420	55
24	355	1365	465	482	598	515	410	450	908	990	1380	810	33	280	480	55
25	400	1505	510	528	670	535	460	500	1013	1090	1565	910	33	315	540	55
26	450	1710	580	593	753	600	510	560	1137	1210	1765	1025	39	355	615	65

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

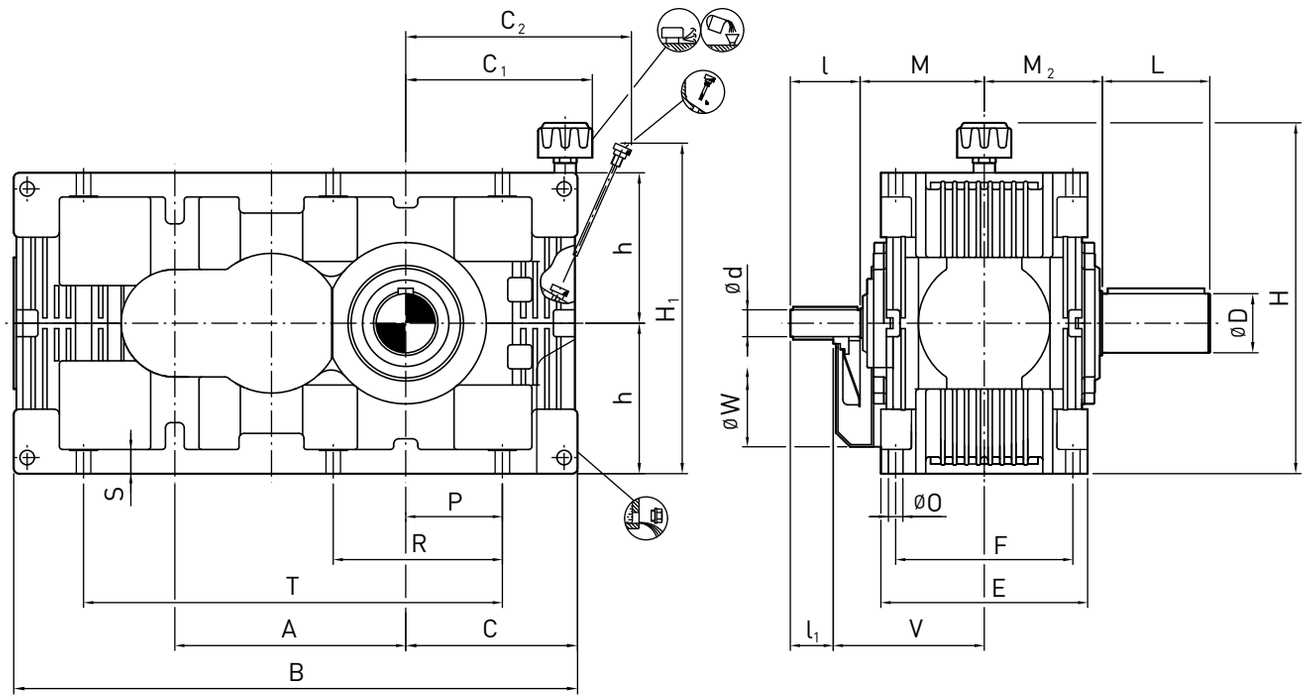
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Type - H2H

Horizontal Mounting

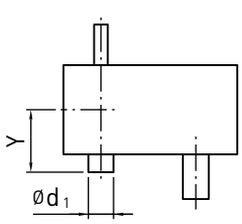
Helical Gear Unit

Double Stage
Size 14 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5.6 - 12.5 / i = 5.6 - 12.5 d	l	l_1	i = 14 - 18 / i = 14 - 20 d	l	l_1	i = 22.4 d	l	l_1	M	V	W	Output Shaft D	L	M_2	Backstop d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
H2..14	25	100		20	100		20	100		140			48	95	125	95	190	85	2
H2..15	30	110		25	100					155			55	95	135	110	210	115	3
H2..16	35	110	65	30	110	65	20	100	55	155	200	270	60	130	145	135	220	165	4
H2..17	45	130	85	35	110	65	25	100	55	160	205	300	70	135	150	140	230	220	5
H2..18	50	130	85	40	130	85				180	225	300	80	160	170	150	250	300	8



Size	Foundation A	B	C	C_1 [2]	C_2 [1]	E	F	h	H_1 [1]	H [2]	O	P	R	S	T
H2..14	190	488	162	198	194	190	150	125	278	330	14	80	140	24	310
H2..15	215	548	177	213	215	228	170	140	306	360	14	95	170	24	355
H2..16	240	615	195	228	231	233	190	160	327	400	14	110	195	24	400
H2..17	270	684	210	238	257	250	210	180	378	440	18	115	210	32	440
H2..18	305	764	236	263	281	284	230	200	404	480	18	135	240	32	505

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

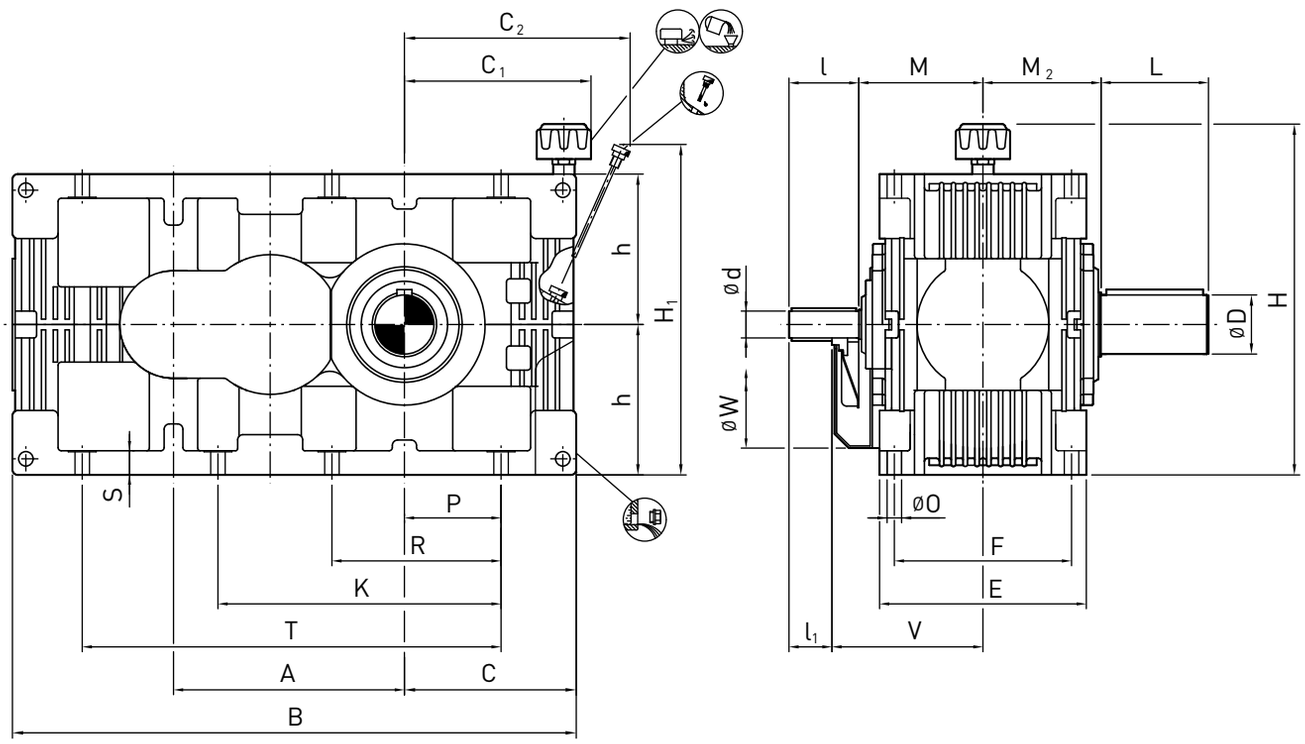
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Helical Gear Unit

Horizontal Mounting

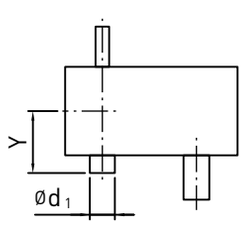
Type - **H2H**

Double Stage
Size 19 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5.6 - 12.5 / i = 5.6 - 12.5 d	l	l_1	i = 14 - 18 / i = 14 - 20 d	l	l_1	i = 22.4 d	l	l_1	M	V	W	Output Shaft D	L	M_2	Backstop d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
H2..19	55	135	85	45	130	80	35	110	60	195	245	320	90	165	180	175	280	405	11
H2..20	60	155	105	50	130	80	40	130	80	205	255	360	100	200	200	190	295	540	14
H2..21	70	155	105	55	135	85				245	295	360	110	200	220	210	335	735	21
H2..22	75	155	105	60	155	105	55	135	85	260	310	430	120	210	230	210	345	1015	29
H2..23	85	180	130	70	155	105	60	155	105	275	325	430	140	250	260	245	370	1365	42
H2..24	95	180	130	80	180	130				340	390	450	160	290	295	290	445	1845	60
H2..25	105	220	170	90	180	130	70	155	105	350	400	550	170	300	305	290	455	2515	85
H2..26	115	220	170	95	180	130	80	180	130	350	400	550	190	350	345	310	465	3390	115



Size	Foundation A	B	C	C_1 [2]	C_2 [1]	E	F	h	H_1 [1]	H [2]	K	O	P	R	S	T
H2..19	340	850	265	283	315	303	250	225	455	530		23	145	255	36	555
H2..20	385	945	288	304	345	314	270	250	496	580		23	165	290	36	635
H2..21	430	1050	320	359	394	385	310	280	572	650		27	180	315	45	705
H2..22	480	1170	355	390	429	400	340	315	635	720		27	200	355	45	785
H2..23	540	1335	405	422	481	450	380	355	705	800		33	220	405	55	875
H2..24	605	1465	435	452	541	515	410	400	795	890		33	245	450	55	975
H2..25	680	1605	475	493	591	535	460	450	865	990		33	280	510	55	1105
H2..26	765	1820	540	553	659	600	510	500	954	1090	940	39	315	575	65	1245

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

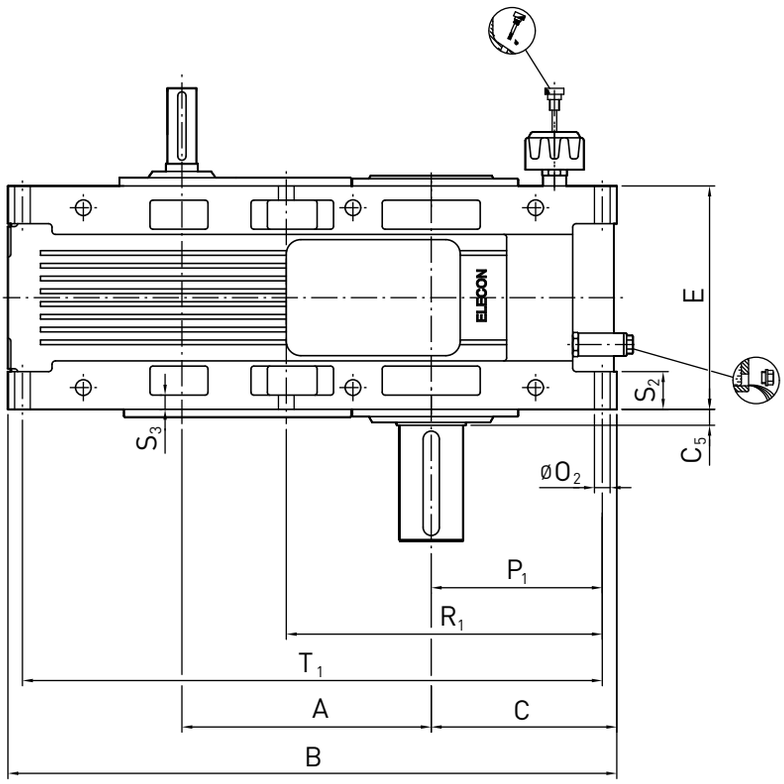
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

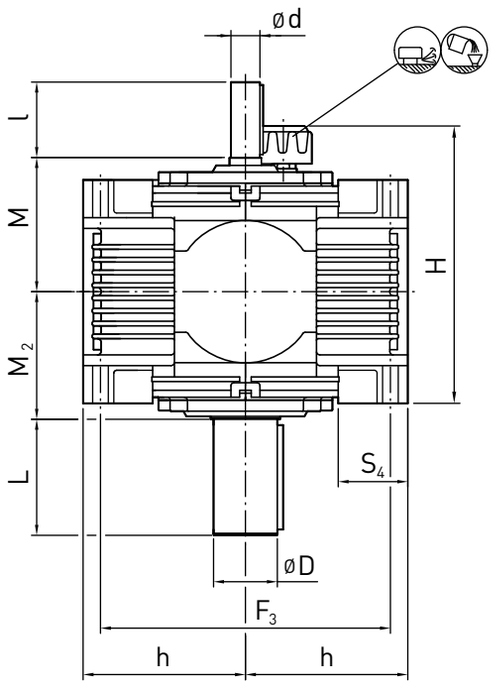
Type - **H2V**

Vertical Mounting

Helical Gear Unit

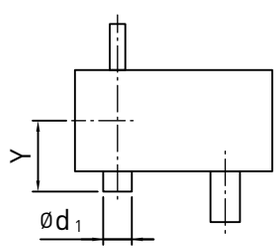
Double Stage
Size 14 to 18





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5.6 - 12.5 / i = 5.6 - 12.5 d	l	i = 14 - 18 / i = 14 - 20 d	l	i = 22.4 d	l	M	Output Shaft D	L	M_2	Backstop d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
H2..14	25	100	20	100	20	100	140	48	95	125	95	190	85	-
H2..15	30	110	25	100			155	55	95	135	110	210	115	-
H2..16	35	110	30	110	20	100	155	60	130	145	135	220	165	-
H2..17	45	130	35	110	25	100	160	70	135	150	140	230	220	-
H2..18	50	130	40	130			180	80	160	170	150	250	300	-



Size	Foundation A	B	C	C_5	E	F_3	h	H [2]	O_2	P_1	R_1	S_2	S_3	S_4	T_1
H2..14	190	488	162	30	190	200	125	270	14	146	292	36	-	70	456
H2..15	215	548	177	21	228	230	140	308	14	160	285	45	15	70	515
H2..16	240	615	195	28.5	233	270	160	313	14	176	316	38	15	70	578
H2..17	270	684	210	25	250	310	180	330	18	190	350	40	20	95	645
H2..18	305	764	236	28	284	350	200	364	18	215	395	45	20	90	722

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

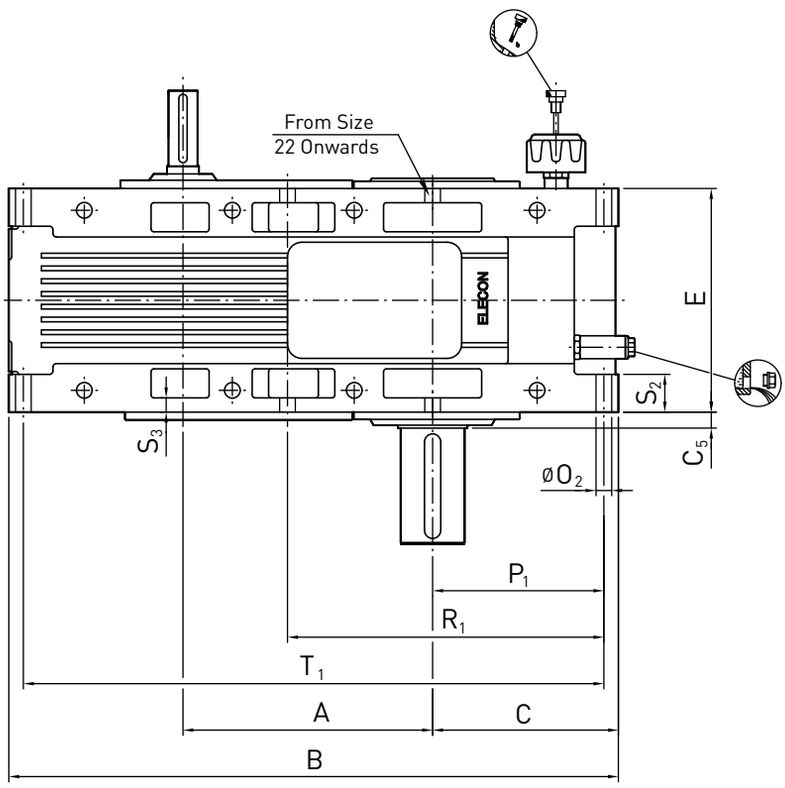
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

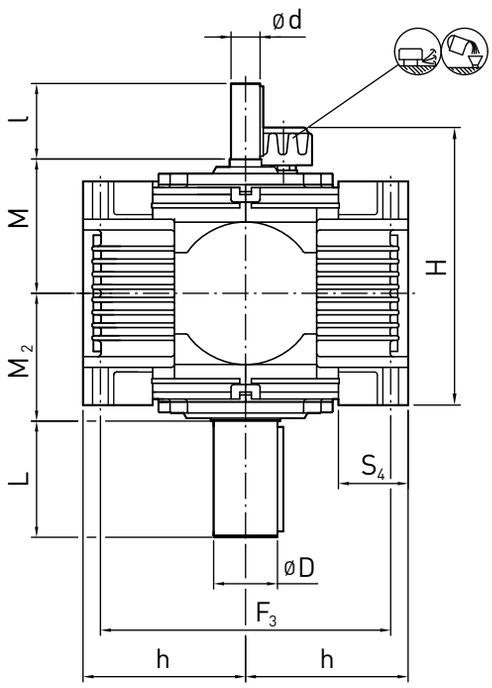
Helical Gear Unit

Vertical Mounting

Type - **H2V**

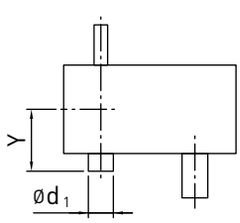
Double Stage
Size 19 to 26





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5.6 - 12.5 d	Input Shaft i = 5.6 - 12.5 l	Input Shaft i = 14 - 18 i = 14 - 20 d	Input Shaft i = 14 - 18 i = 14 - 20 l	Input Shaft i = 22.4 d	Input Shaft i = 22.4 l	Input Shaft M	Output Shaft D	Output Shaft L	Output Shaft M_2	Backstop d_1 [1]	Backstop Y [1]	Average Weight [kg]	Oil Quantity [Litres]
H2..19	55	135	45	130	35	110	195	90	165	180	175	280	405	-
H2..20	60	155	50	130	40	130	205	100	200	200	190	295	540	-
H2..21	70	155	55	135			245	110	200	220	210	335	735	-
H2..22	75	155	60	155	55	135	260	120	210	230	210	345	1015	-
H2..23	85	180	70	155	60	155	275	140	250	260	245	370	1365	-
H2..24	95	180	80	180			340	160	290	295	290	445	1845	-
H2..25	105	220	90	180	70	155	350	170	300	305	290	455	2515	-
H2..26	115	220	95	180	80	180	350	190	350	345	310	465	3390	-



Size	Foundation A	B	C	C_5	E	F_3	h	H [2]	O_2	P_1	R_1	S_2	S_3	S_4	T_1
H2..19	340	850	265	28.5	303	400	225	383	23	240	440	48.5	22	105	800
H2..20	385	945	288	43	314	440	250	394	23	262	487	45	24	105	893
H2..21	430	1050	320	27.5	385	500	280	475	27	295	545	65	28	120	1000
H2..22	480	1170	355	30	400	560	315	490	27	325	605	60	28	120	1110
H2..23	540	1335	405	35	450	630	355	540	33	370	685	70	35	150	1265
H2..24	605	1465	435	37.5	515	700	400	605	33	398	753	87.5	35	150	1391
H2..25	680	1605	475	37.5	535	800	450	625	33	436	836	80	35	150	1528
H2..26	765	1820	540	45	600	890	500	700	39	495	945	100	45	175	1730

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

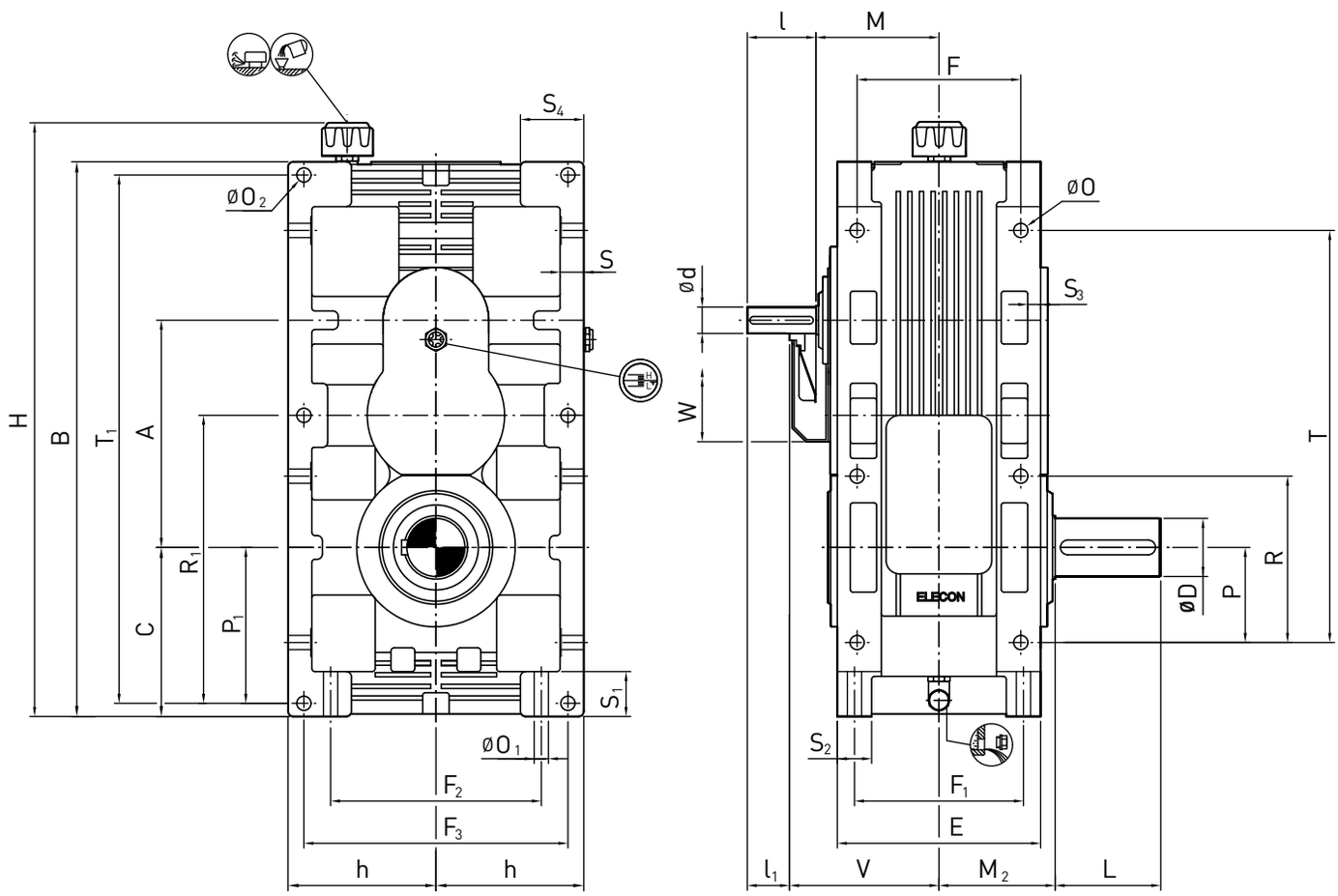
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Type - **H20**

Over Driven

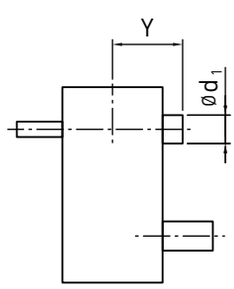
Helical Gear Unit

Double Stage
Size 14 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5.6 - 12.5 / i = 5.6 - 12.5 d	l	l_1	i = 14 - 18 / i = 14 - 20 d	l	l_1	i = 22.4 d	l	l_1	M	V	W	Output Shaft D	L	M_2	Backstop d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
H2..14	25	100		20	100		20	100		140			48	95	125	95	190	85	-
H2..15	30	110		25	100					155			55	95	135	110	210	115	-
H2..16	35	110	65	30	110	65	20	100	55	155	200	270	60	130	145	135	220	165	-
H2..17	45	130	85	35	110	65	25	100	55	160	205	300	70	135	150	140	230	220	-
H2..18	50	130	85	40	130	85				180	225	300	80	160	170	150	250	300	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	H [2]	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
H2..14	190	488	162	190	150	150	140	200	125	568	14	14	14	80	146	140	292	24	52	36	15	70	310	456
H2..15	215	548	177	228	170	170	170	230	140	628	14	14	14	95	160	170	285	24	52	45	15	70	355	515
H2..16	240	615	195	233	190	190	210	270	160	695	14	14	14	110	176	195	316	24	55	38	15	70	400	578
H2..17	270	684	210	250	210	210	220	310	180	764	18	18	18	115	190	210	350	32	60	40	20	95	440	645
H2..18	305	764	236	284	230	230	260	350	200	844	18	18	18	135	215	240	395	32	66	45	20	90	505	722

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

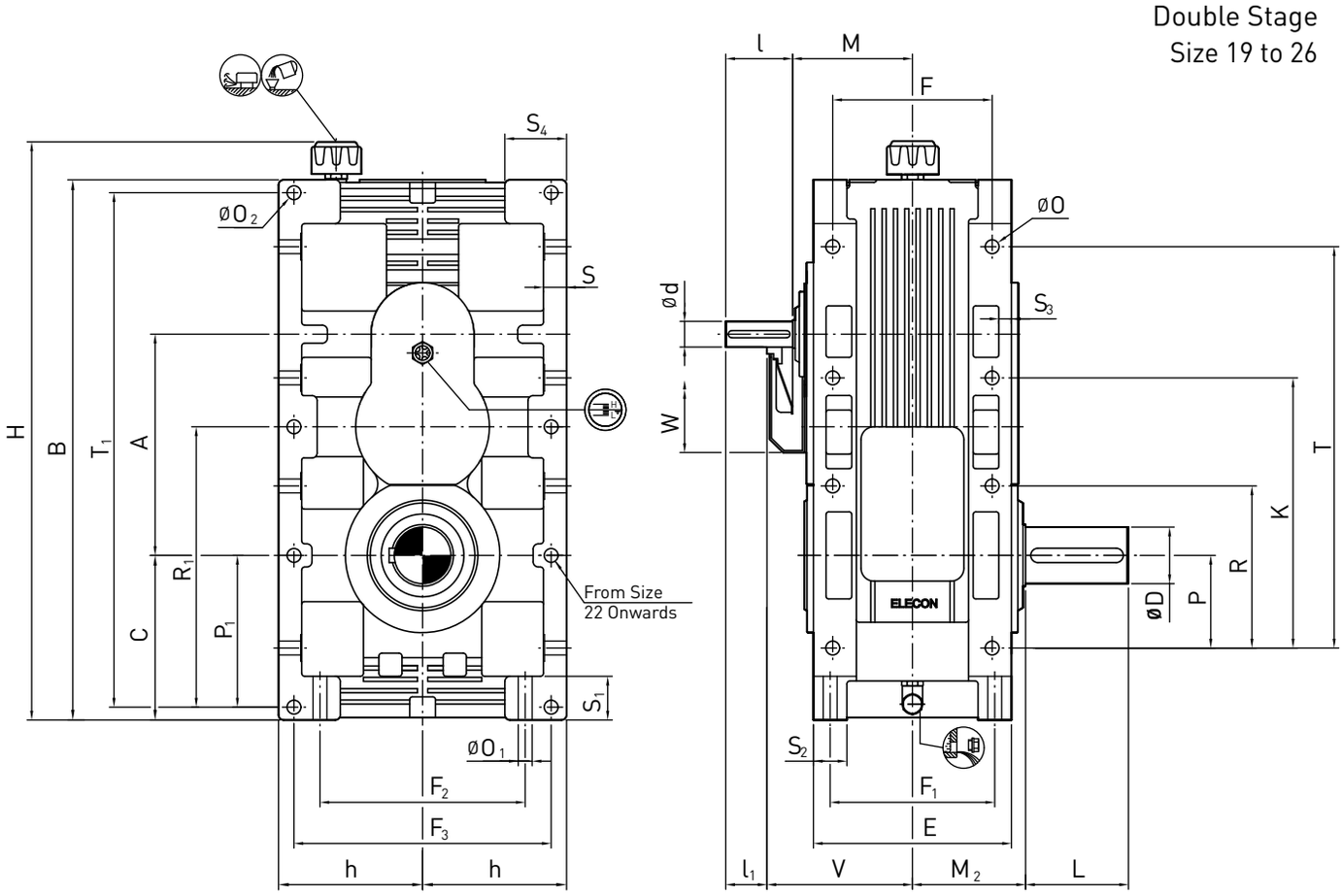
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Helical Gear Unit

Over Driven

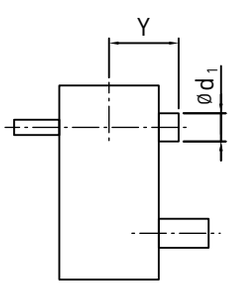
Type - H20

Double Stage
Size 19 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5.6 - 12.5 / i = 5.6 - 12.5 d	l	l1	i = 14 - 18 / i = 14 - 20 d	l	l1	i = 22.4 d	l	l1	M	V	W	Output Shaft D	L	M2	Backstop d1 1)	Y 1)	Average Weight [kg]	Oil Quantity [Litres]
H2..19	55	135	85	45	130	80	35	110	60	195	245	320	90	165	180	175	280	405	-
H2..20	60	155	105	50	130	80	40	130	80	205	255	360	100	200	200	190	295	540	-
H2..21	70	155	105	55	135	85				245	295	360	110	200	220	210	335	735	-
H2..22	75	155	105	60	155	105	55	135	85	260	310	430	120	210	230	210	345	1015	-
H2..23	85	180	130	70	155	105	60	155	105	275	325	430	140	250	260	245	370	1365	-
H2..24	95	180	130	80	180	130				340	390	450	160	290	295	290	445	1845	-
H2..25	105	220	170	90	180	130	70	155	105	350	400	550	170	300	305	290	455	2515	-
H2..26	115	220	170	95	180	130	80	180	130	350	400	550	190	350	345	310	465	3390	-



Size	Foundation A	B	C	E	F	F1	F2	F3	h	H 2)	K	O	O1	O2	P	P1	R	R1	S	S1	S2	S3	S4	T	T1
H2..19	340	850	265	303	250	250	290	400	225	930		23	23	23	145	240	255	440	36	75	48.5	22	105	555	800
H2..20	385	945	288	314	270	270	340	440	250	1025		23	23	23	165	262	290	487	36	78	45	24	105	635	893
H2..21	430	1050	320	385	310	310	370	500	280	1140		27	27	27	180	295	315	545	45	85	65	28	120	705	1000
H2..22	480	1170	355	400	340	340	440	560	315	1260		27	27	27	200	325	355	605	45	90	60	28	120	785	1110
H2..23	540	1335	405	450	380	380	480	630	355	1425		33	33	33	220	370	405	685	55	110	70	35	150	875	1265
H2..24	605	1465	435	515	410	410	570	700	400	1555		33	33	33	245	398	450	753	55	110	87.5	35	150	975	1391
H2..25	680	1605	475	535	460	460	670	800	450	1695		33	33	33	280	436	510	836	55	110	80	35	150	1105	1528
H2..26	765	1820	540	600	510	510	730	890	500	1920	940	39	39	39	315	495	575	945	65	130	100	45	175	1245	1730

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

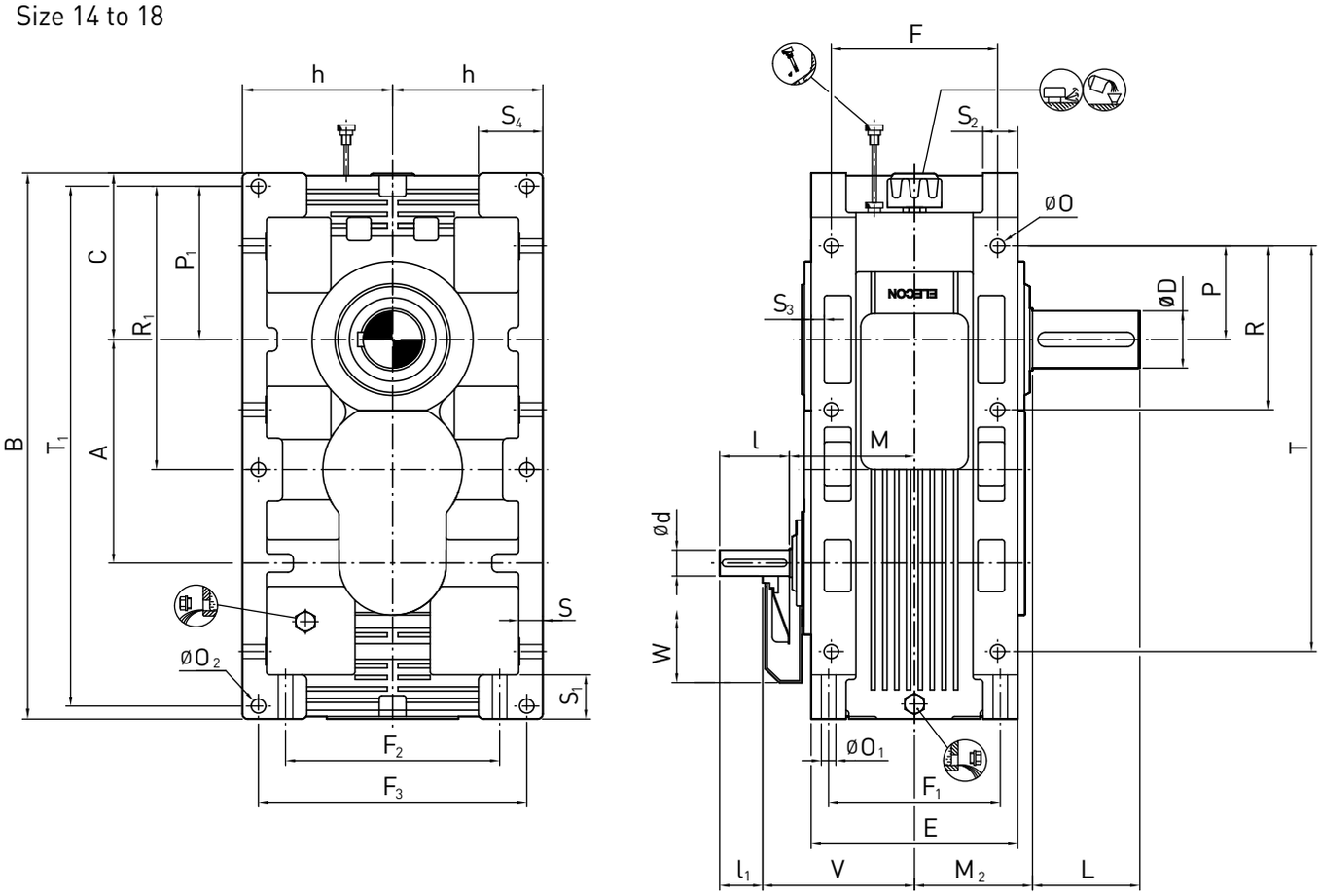
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Type - H2U

Under Driven

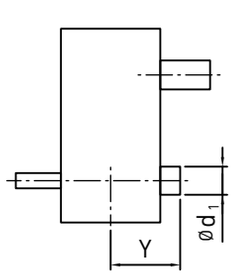
Helical Gear Unit

Double Stage
Size 14 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5.6 - 12.5 / i = 5.6 - 12.5 d	l	l_1	i = 14 - 18 / i = 14 - 20 d	l	l_1	i = 22.4 d	l	l_1	M	V	W	Output Shaft D	L	M_2	Backstop d_1 1)	Y 1)	Average Weight [kg]	Oil Quantity [Litres]
H2..14	25	100		20	100		20	100		140			48	95	125	95	190	85	-
H2..15	30	110		25	100					155			55	95	135	110	210	115	-
H2..16	35	110	65	30	110	65	20	100	55	155	200	270	60	130	145	135	220	165	-
H2..17	45	130	85	35	110	65	25	100	55	160	205	300	70	135	150	140	230	220	-
H2..18	50	130	85	40	130	85				180	225	300	80	160	170	150	250	300	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
H2..14	190	488	162	190	150	150	140	200	125	14	14	14	80	146	140	292	24	52	36	-	70	310	456
H2..15	215	548	177	228	170	170	170	230	140	14	14	14	95	160	170	285	24	52	45	15	70	355	515
H2..16	240	615	195	233	190	190	210	270	160	14	14	14	110	176	195	316	24	55	38	15	70	400	578
H2..17	270	684	210	250	210	210	220	310	180	18	18	18	115	190	210	350	32	60	40	20	95	440	645
H2..18	305	764	236	284	230	230	260	350	200	18	18	18	135	215	240	395	32	66	45	20	90	505	722

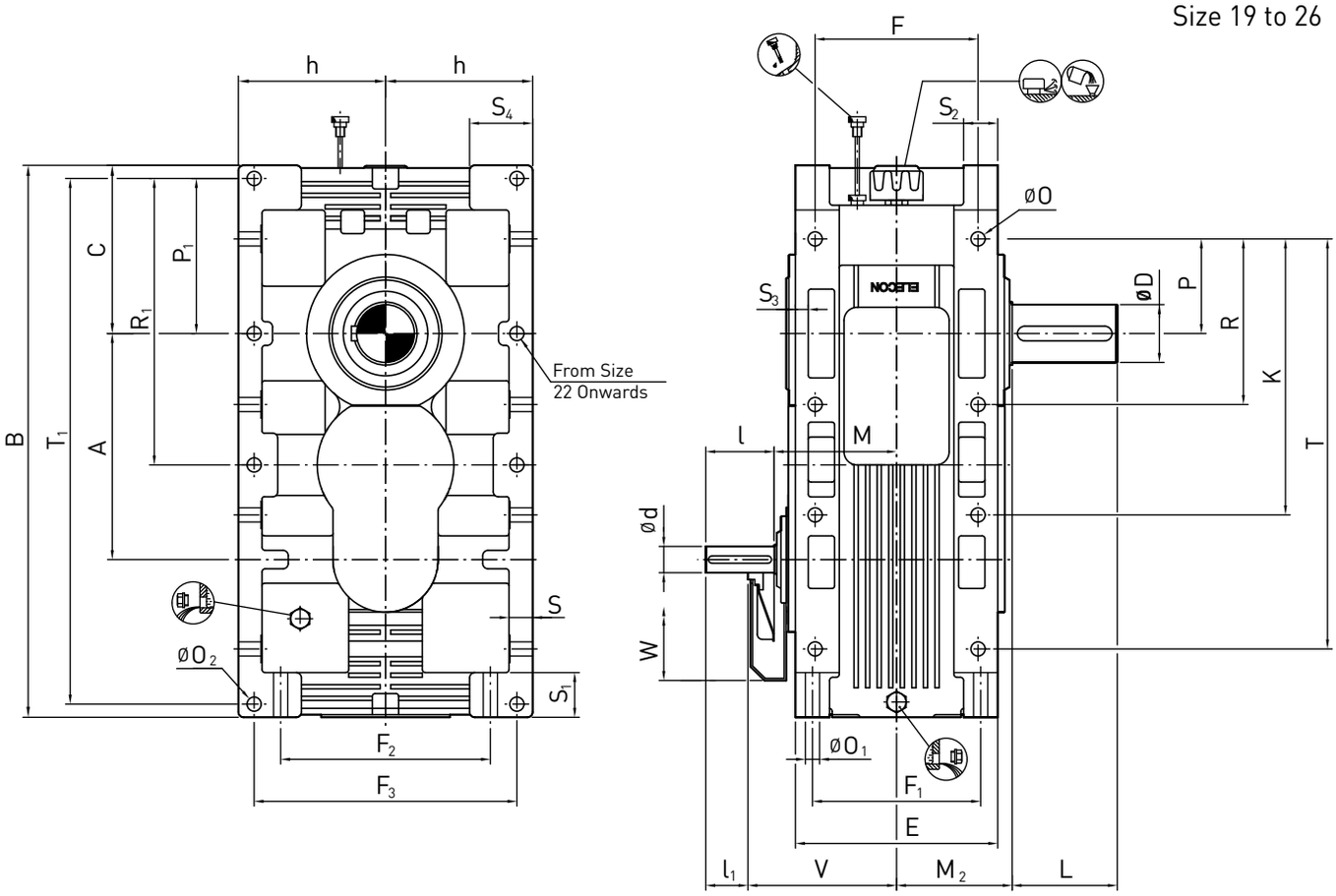
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Helical Gear Unit — Under Driven

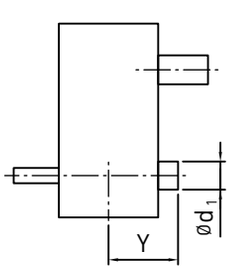
Type - H2U

Double Stage
Size 19 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5.6 - 12.5 / i = 5.6 - 12.5 d	l	l_1	i = 14 - 18 / i = 14 - 20 d	l	l_1	i = 22.4 d	l	l_1	M	V	W	Output Shaft D	L	M_2	Backstop d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
H2..19	55	135	85	45	130	80	35	110	60	195	245	320	90	165	180	175	280	405	-
H2..20	60	155	105	50	130	80	40	130	80	205	255	360	100	200	200	190	295	540	-
H2..21	70	155	105	55	135	85				245	295	360	110	200	220	210	335	735	-
H2..22	75	155	105	60	155	105	55	135	85	260	310	430	120	210	230	210	345	1015	-
H2..23	85	180	130	70	155	105	60	155	105	275	325	430	140	250	260	245	370	1365	-
H2..24	95	180	130	80	180	130				340	390	450	160	290	295	290	445	1845	-
H2..25	105	220	170	90	180	130	70	155	105	350	400	550	170	300	305	290	455	2515	-
H2..26	115	220	170	95	180	130	80	180	130	350	400	550	190	350	345	310	465	3390	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	K	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
H2..19	340	850	265	303	250	250	290	400	225		23	23	23	145	240	255	440	36	75	48.5	22	105	555	800
H2..20	385	945	288	314	270	270	340	440	250		23	23	23	165	262	290	487	36	78	45	24	105	635	893
H2..21	430	1050	320	385	310	310	370	500	280		27	27	27	180	295	315	545	45	85	65	28	120	705	1000
H2..22	480	1170	355	400	340	340	440	560	315		27	27	27	200	325	355	605	45	90	60	28	120	785	1110
H2..23	540	1335	405	450	380	380	480	630	355		33	33	33	220	370	405	685	55	110	70	35	150	875	1265
H2..24	605	1465	435	515	410	410	570	700	400		33	33	33	245	398	450	753	55	110	87.5	35	150	975	1391
H2..25	680	1605	475	535	460	460	670	800	450		33	33	33	280	436	510	836	55	110	80	35	150	1105	1528
H2..26	765	1820	540	600	510	510	730	890	500	940	39	39	39	315	495	575	945	65	130	100	45	175	1245	1730

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

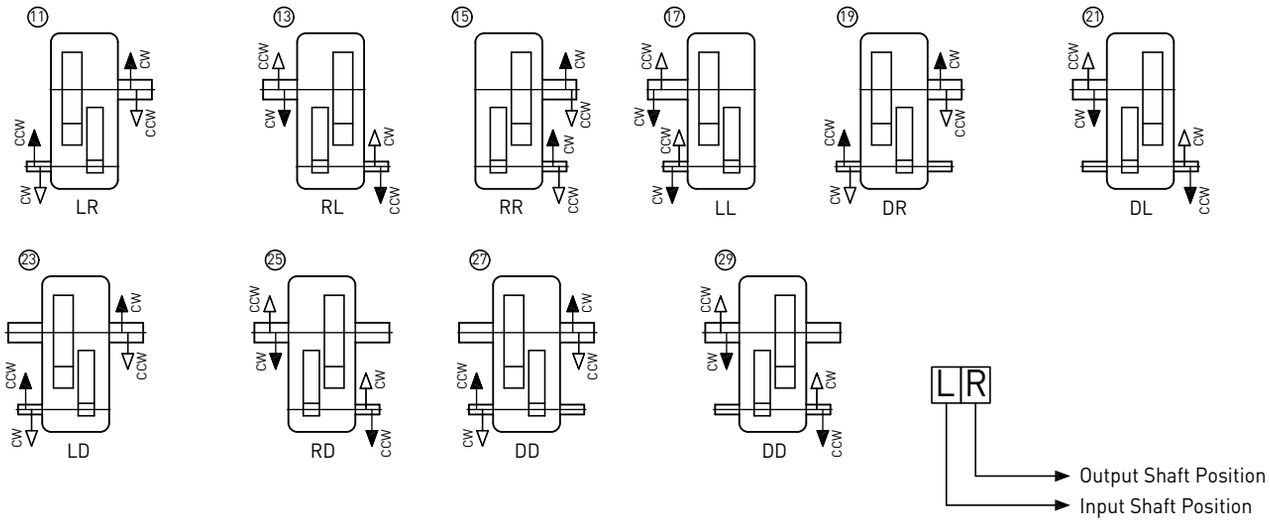
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

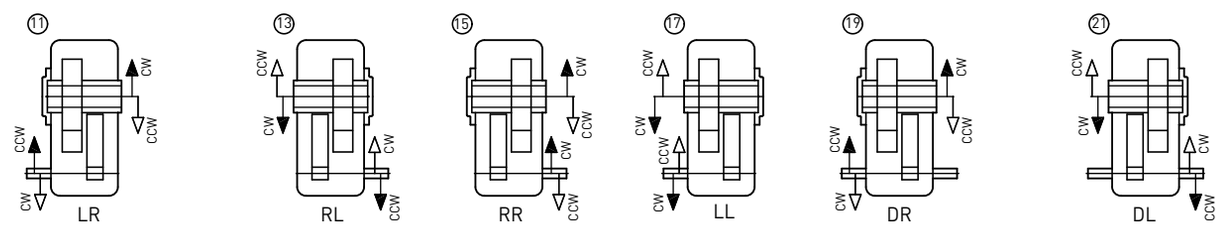
Type - **H2**

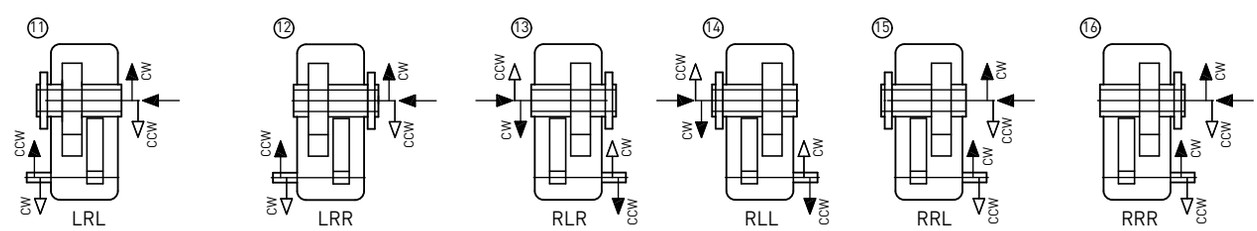
Double Stage

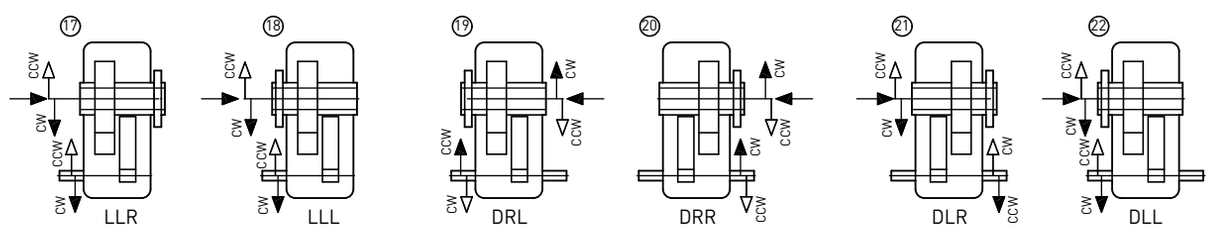
Shaft Arrangement

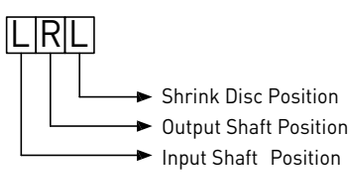
Helical Gear Unit









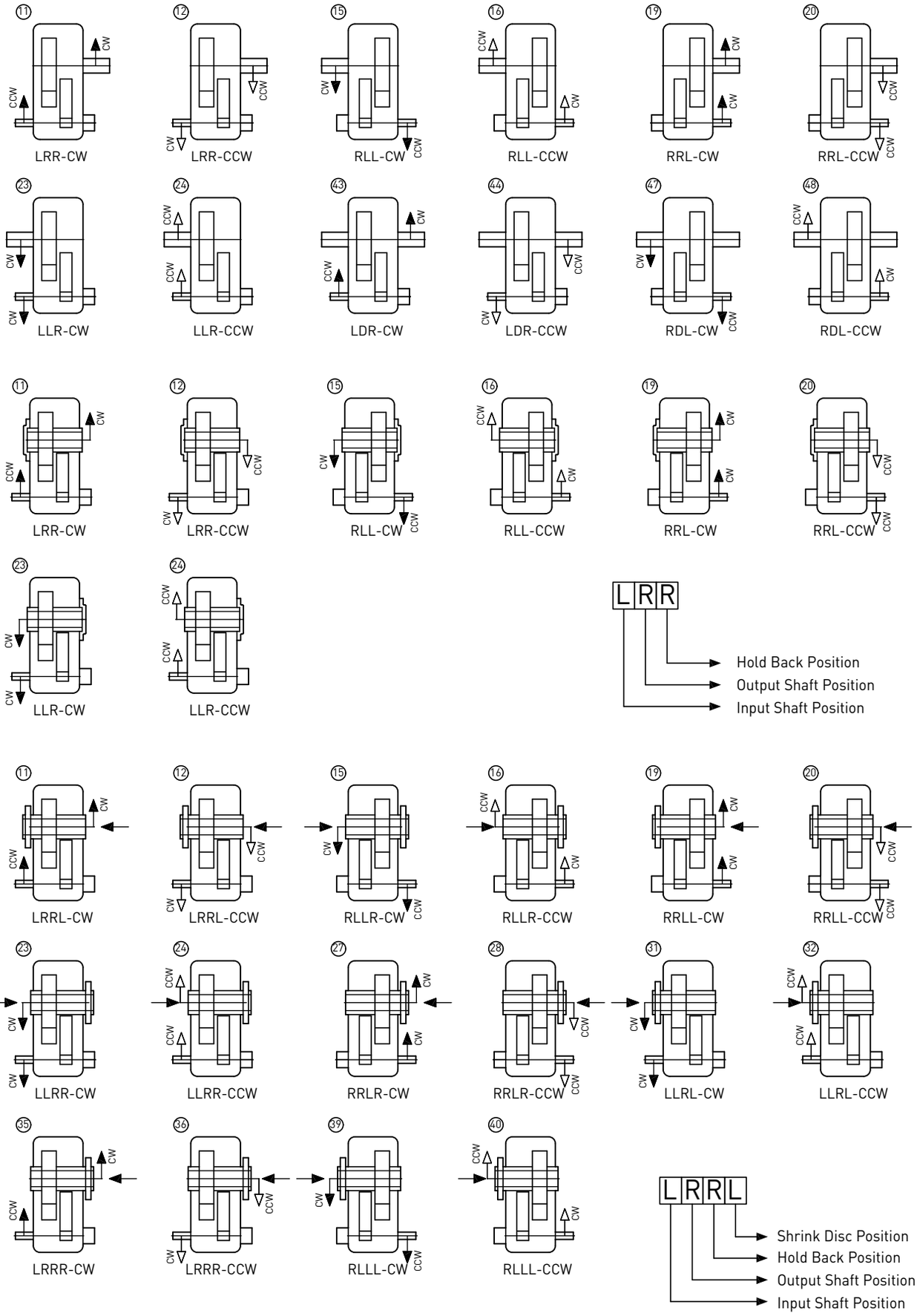


Helical Gear Unit

Shaft Arrangement - Hold Back

Type - **H2**

Double Stage

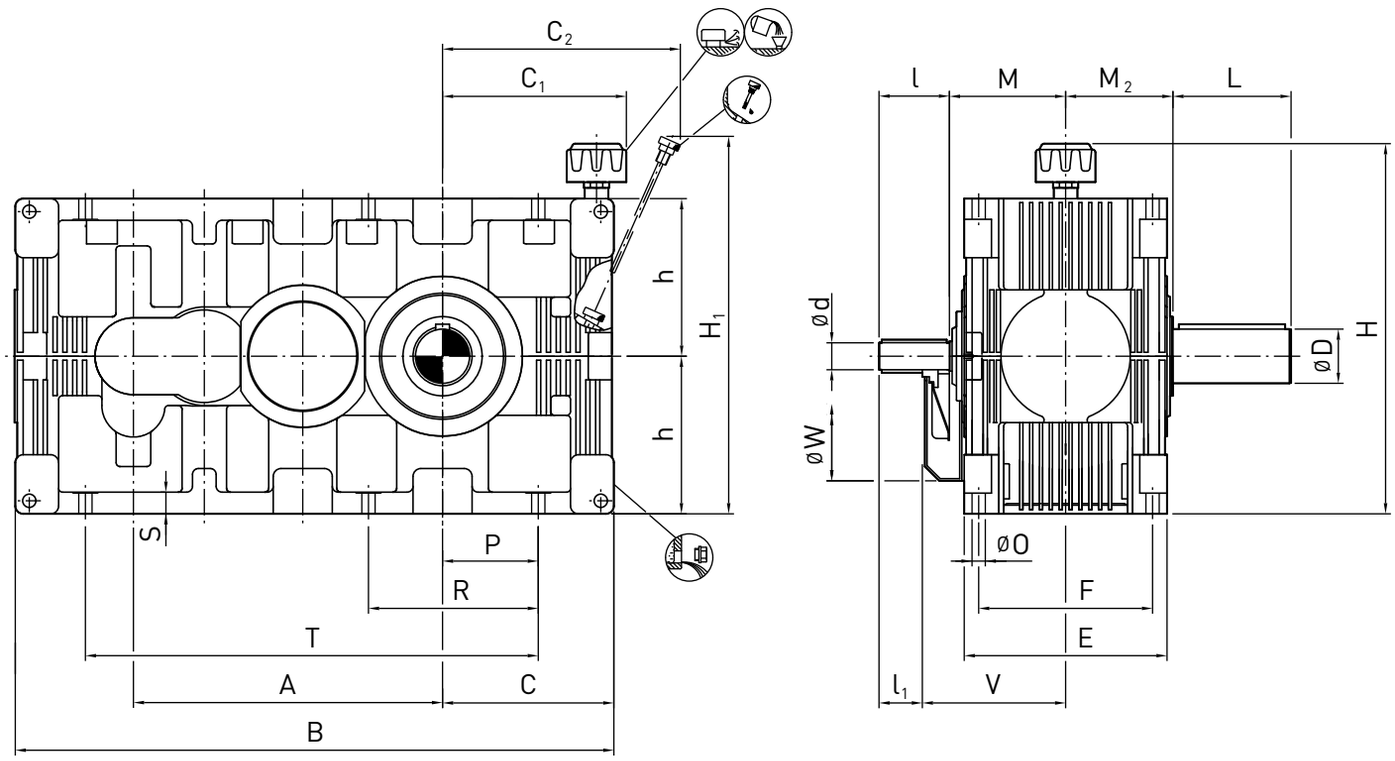


Type - H3H

Horizontal Mounting

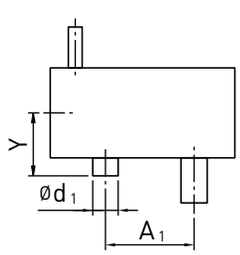
Helical Gear Unit

Triple Stage
Size 16 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 25-50 i = 25-63 i = 25-71			Input Shaft i = 56-80 i = 71-100 i = 80-100			Input Shaft i = 112						Output Shaft			Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	d	l	l_1	M	V	W	D	L	M_2	A_1	d_1 [1]	Y [1]		
H3..16	24	100	50	19	100	50	19	100	50	155	200	270	60	130	145	240	95	215	180	6.5
H3..17	28	100	50	24	100	50	19	100	50	160	205	270	70	135	150	270	95	215	240	8
H3..18	30	110	60	25	100	50				180	225	300	80	160	170	305	140	265	325	10



Size	Foundation A	B	C	C_1 [2]	C_2 [1]	E	F	h	H_1 [1]	H [2]	O	P	R	S	T
H3..16	311	631	195	228	231	233	190	160	327	400	14	110	195	24	450
H3..17	350	696	210	238	257	250	210	180	378	440	18	115	210	32	495
H3..18	395	787	236	263	281	284	230	200	404	480	18	135	240	32	565

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

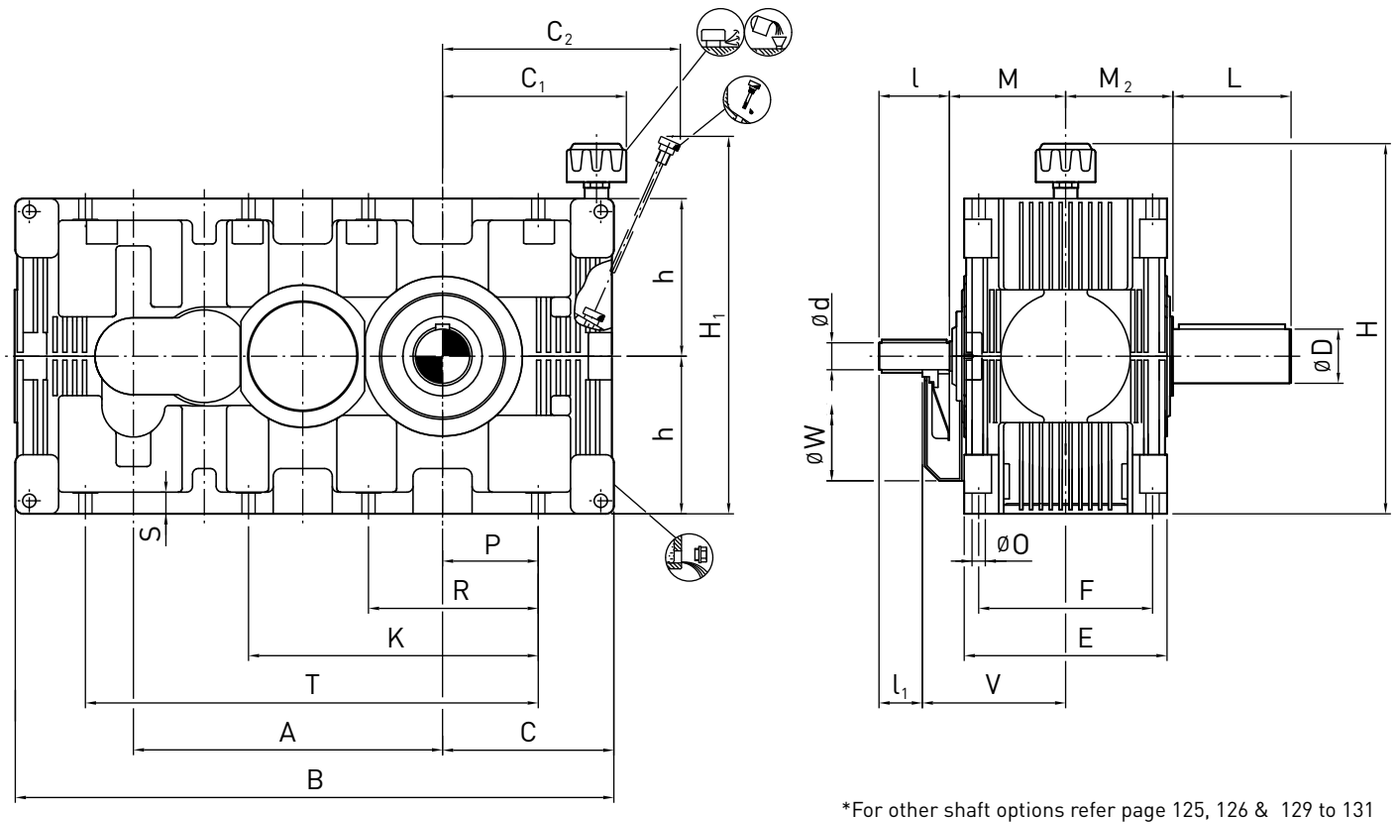
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Helical Gear Unit

Horizontal Mounting

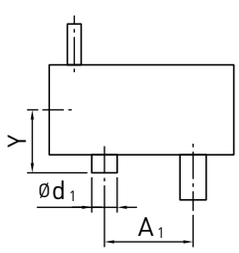
Type - **H3H**

Triple Stage
Size 19 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft: i = 25 - 50 / i = 25 - 63 / i = 25 - 71			Input Shaft: i = 56 - 80 / i = 71 - 100 / i = 80 - 100			Input Shaft: i = 112						Output Shaft			Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	d	l	l_1	M	V	W	D	L	M_2	A_1	d_1 [1]	Y [1]		
H3..19	35	110	60	30	110	60	25	100	50	190	240	320	90	165	180	340	150	265	445	14
H3..20	45	130	80	35	110	60	25	100	50	195	245	360	100	200	200	385	150	265	610	22
H3..21	50	130	80	40	130	80				240	290	360	110	200	220	430	190	340	810	28
H3..22	55	135	85	45	130	80	35	110	60	250	300	430	120	210	230	480	190	340	1080	39
H3..23	60	155	105	50	130	80	40	130	80	270	320	430	140	250	260	540	190	340	1455	56
H3..24	70	155	105	55	135	85				325	375	450	160	290	295	605	245	440	1950	80
H3..25	75	155	105	60	155	105	50	130	80	335	385	450	170	300	305	680	245	440	2655	115
H3..26	85	180	130	70	155	105	70	155	105	350	400	450	190	350	345	765	245	440	3525	165



Size	Foundation															
	A	B	C	C_1 [2]	C_2 [1]	E	F	h	H_1 [1]	H [2]	K	O	P	R	S	T
H3..19	440	885	265	283	315	303	250	225	455	530		23	145	255	36	615
H3..20	495	987	288	304	345	314	270	250	496	580		23	165	290	36	705
H3..21	555	1098	320	359	394	385	310	280	572	650		27	180	315	45	780
H3..22	620	1220	355	390	429	400	340	315	635	720		27	200	355	45	880
H3..23	700	1377	405	422	481	450	380	355	705	800	655	33	220	405	55	985
H3..24	785	1520	435	452	541	515	410	400	795	890	740	33	245	450	55	1110
H3..25	880	1690	475	493	591	535	460	450	865	990	840	33	280	510	55	1245
H3..26	990	1920	540	553	659	600	510	500	954	1090	940	39	315	575	65	1400

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

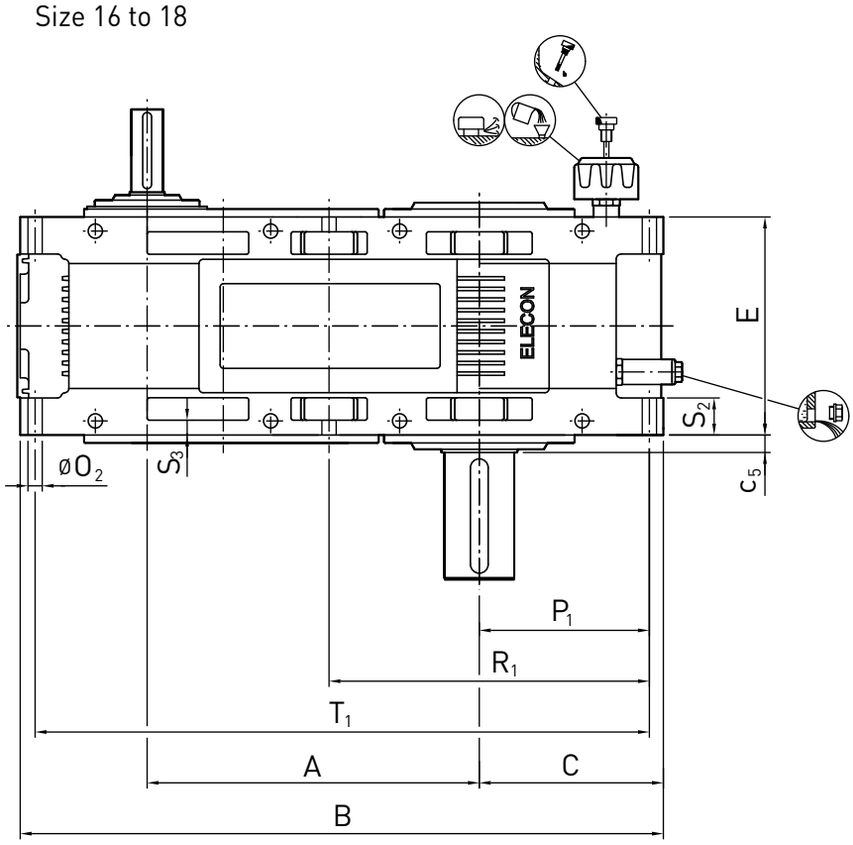
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

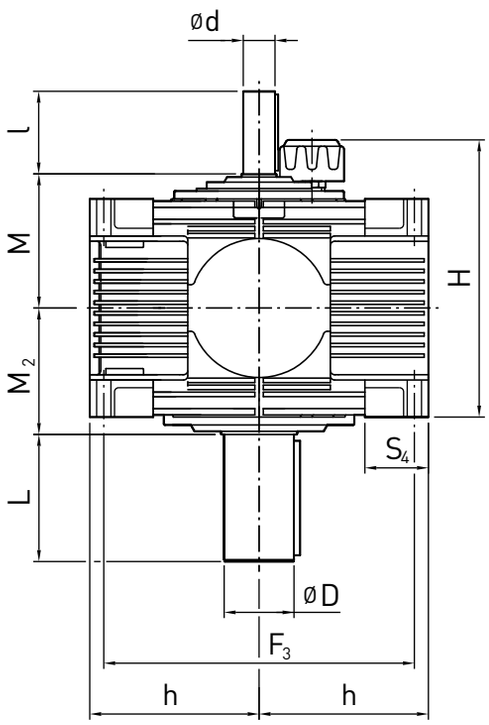
Type - **H3V**

Vertical Mounting

Helical Gear Unit

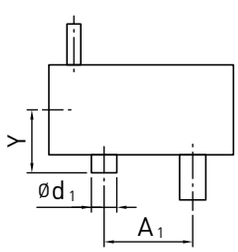
Triple Stage
Size 16 to 18





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft: i = 25 - 50 / i = 25 - 63 / i = 25 - 71		i = 56 - 80 / i = 71 - 100 / i = 80 - 100		i = 112			Output Shaft			Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	d	l	d	l	M	D	L	M_2	A_1	d_1 [1]	Y [1]		
H3..16	24	100	19	100	19	100	155	60	130	145	240	95	215	180	-
H3..17	28	100	24	100	19	100	160	70	135	150	270	95	215	240	-
H3..18	30	110	25	100			180	80	160	170	305	140	265	325	-



Size	Foundation														
	A	B	C	C_5	E	F_3	h	H [2]	O_2	P_1	R_1	S_2	S_3	S_4	T_1
H3..16	311	631	195	28.5	233	270	160	313	14	176	316	38	15	70	594
H3..17	350	696	210	25	250	310	180	330	18	190	350	40	20	90	655
H3..18	395	787	236	28	284	350	200	364	18	215	395	45	20	90	744

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

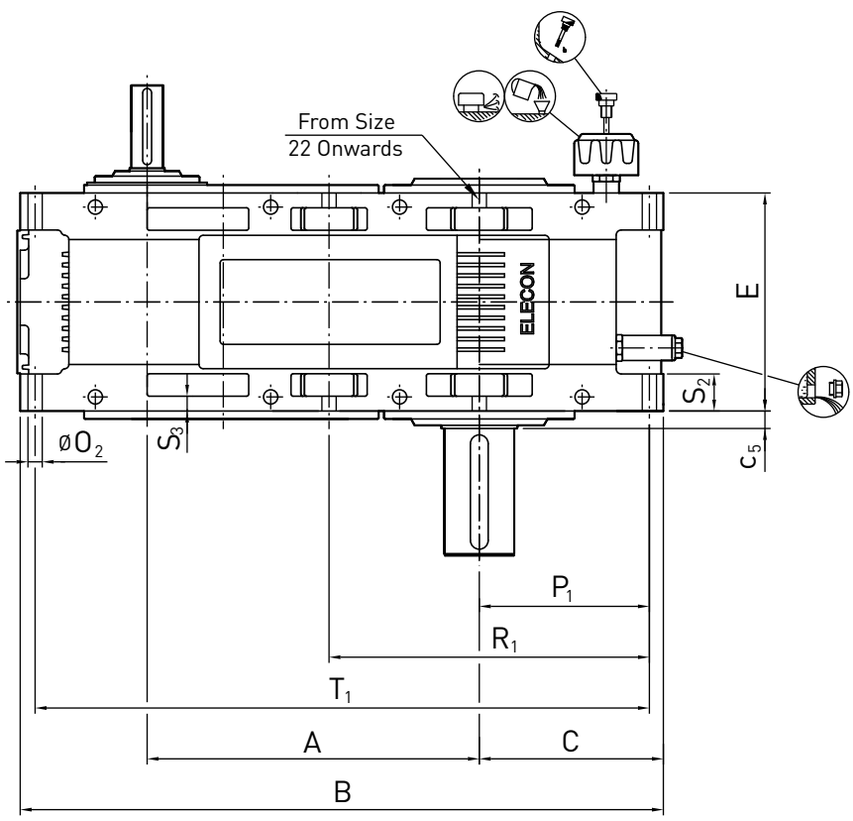
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

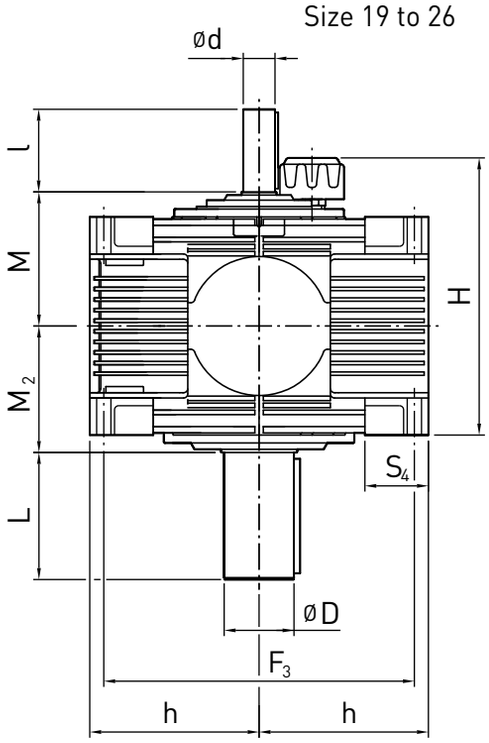
Helical Gear Unit

Vertical Mounting

Type - **H3V**

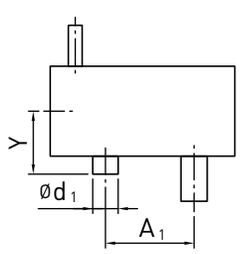
Triple Stage
Size 19 to 26





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 25 - 50 / i = 25 - 63 / i = 25 - 71 d	l	Input Shaft i = 56 - 80 / i = 71 - 100 / i = 80 - 100 d	l	Input Shaft i = 112 d	l	M	Output Shaft D	L	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
H3..19	35	110	30	110	25	100	190	90	165	180	340	150	265	445	-
H3..20	45	130	35	110	25	100	195	100	200	200	385	150	265	610	-
H3..21	50	130	40	130			240	110	200	220	430	190	340	810	-
H3..22	55	135	45	130	35	110	250	120	210	230	480	190	340	1080	-
H3..23	60	155	50	130	40	130	270	140	250	260	540	190	340	1455	-
H3..24	70	155	55	135			325	160	290	295	605	245	440	1950	-
H3..25	75	155	60	155	50	130	335	170	300	305	680	245	440	2655	-
H3..26	85	180	70	155	70	155	350	190	350	345	765	245	440	3525	-



Size	Foundation A	B	C	C_5	E	F_3	h	H [2]	O_2	P_1	R_1	S_2	S_3	S_4	T_1
H3..19	440	885	265	28.5	303	400	225	383	23	240	440	48.5	22	105	836
H3..20	495	987	288	43	314	440	250	394	23	262	487	45	24	105	935
H3..21	555	1098	320	27.5	385	500	280	475	27	295	545	65	28	120	1045
H3..22	620	1220	355	30	400	560	315	490	27	325	605	60	28	120	1160
H3..23	700	1377	405	35	450	630	355	540	33	370	685	70	35	150	1305
H3..24	785	1520	435	37.5	515	700	400	605	33	398	753	87.5	35	150	1443
H3..25	880	1690	475	37.5	535	800	450	625	33	436	836	80	35	150	1612
H3..26	990	1920	540	45	600	890	500	700	39	495	945	100	45	175	1830

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

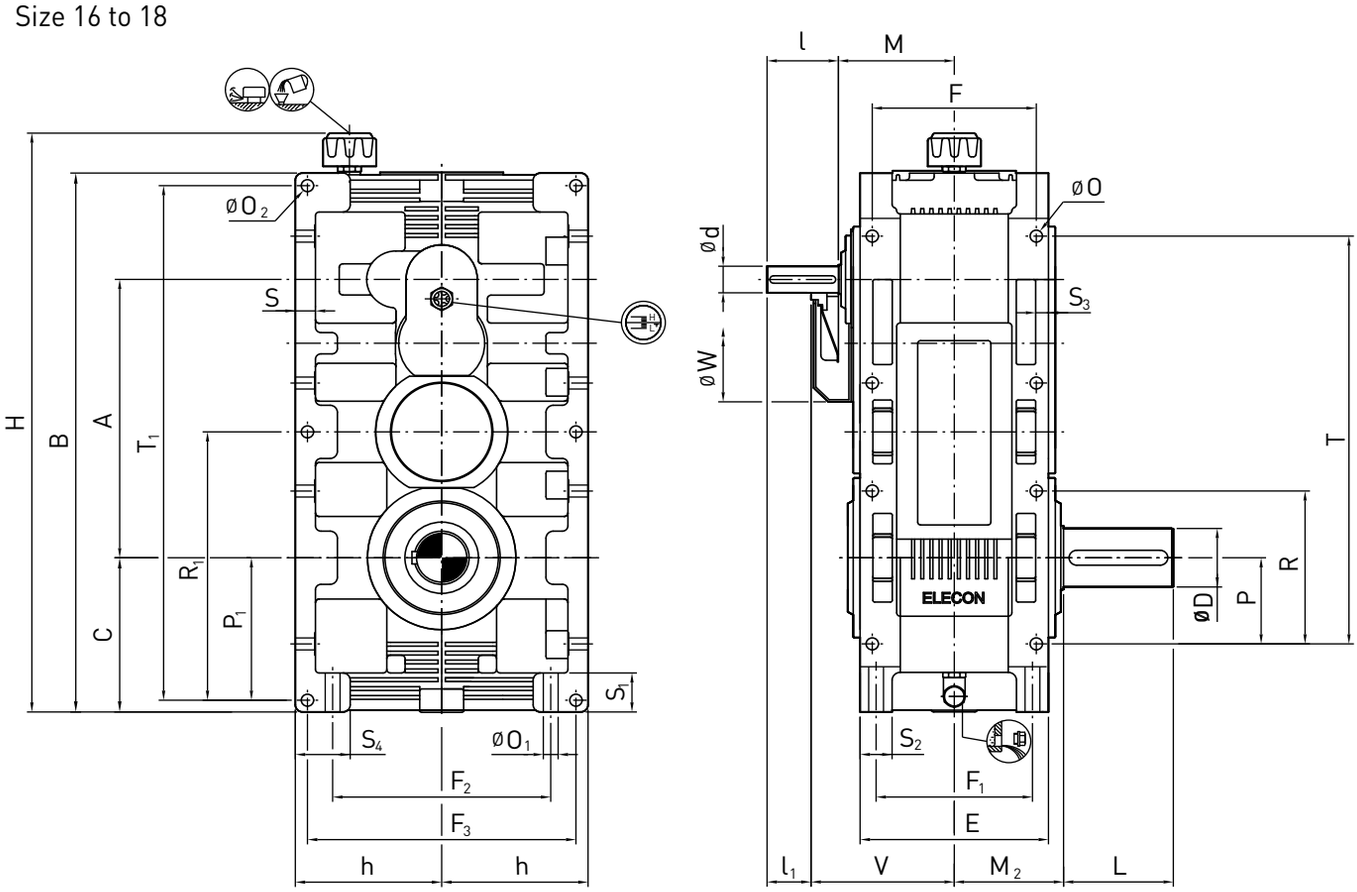
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Type - **H30**

O ver Driven

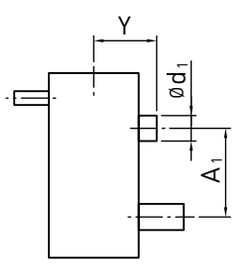
Helical Gear Unit

Triple Stage
Size 16 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft: i = 25-50 / i = 25-63 / i = 25-71			Input Shaft: i = 56-80 / i = 71-100 / i = 80-100			Input Shaft: i = 112						Output Shaft			Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	d	l	l_1	M	V	W	D	L	M_2	A_1	d_1 [1]	Y [1]		
H3..16	24	100	50	19	100	50	19	100	50	155	200	270	60	130	145	240	95	215	180	-
H3..17	28	100	50	24	100	50	19	100	50	160	205	270	70	135	150	270	95	215	240	-
H3..18	30	110	60	25	100	50				180	225	300	80	160	170	305	140	265	325	-



Size	Foundation: A	B	C	E	F	F_1	F_2	F_3	h	H [2]	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
H3..16	311	631	195	233	190	190	210	270	160	711	14	14	14	110	176	195	316	24	55	38	15	70	450	594
H3..17	350	696	210	250	210	210	220	310	180	776	18	18	18	115	190	210	350	32	60	40	20	90	495	655
H3..18	395	787	236	284	230	230	260	350	200	867	18	18	18	135	215	240	395	32	66	45	20	90	565	744

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

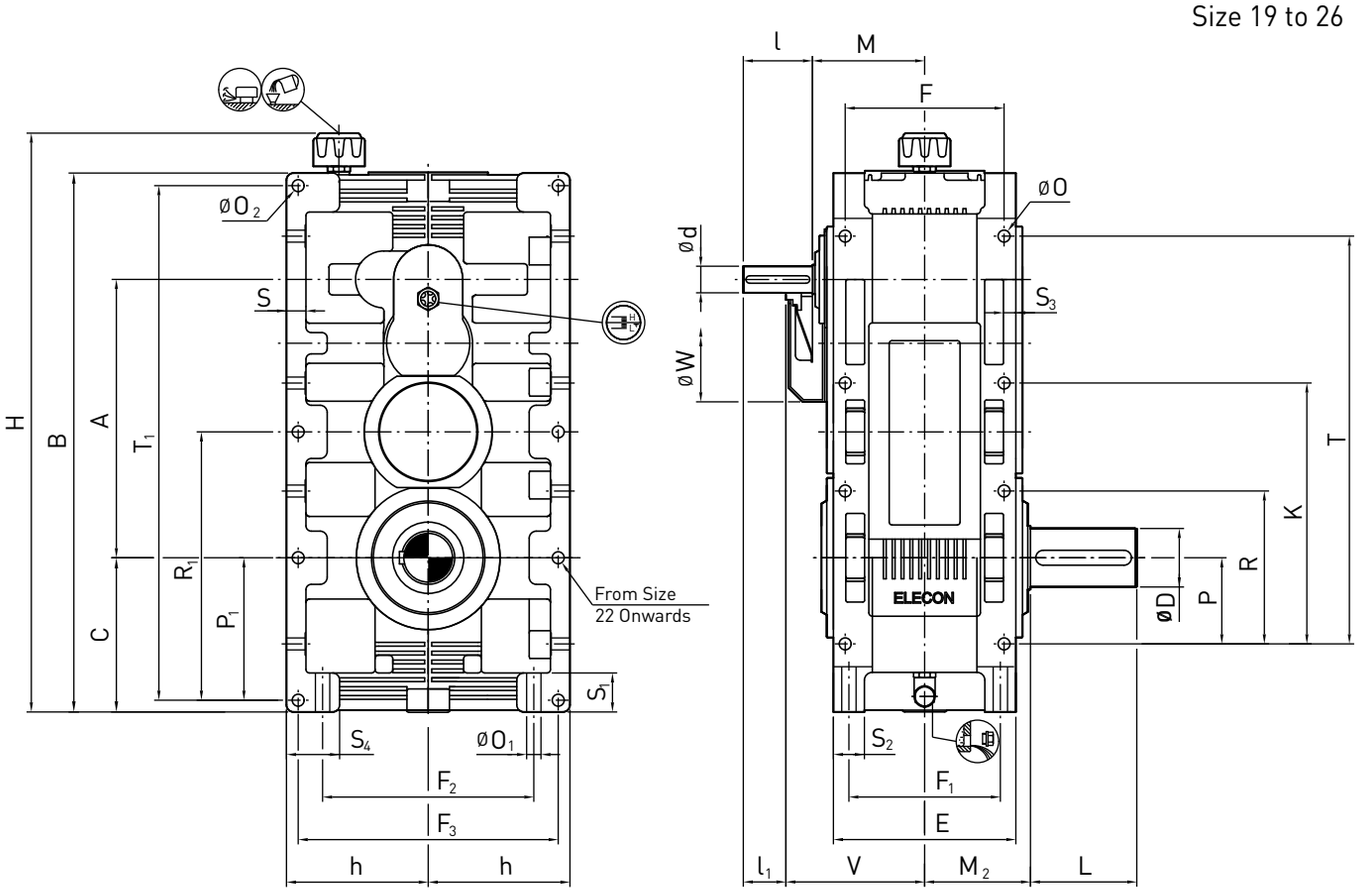
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Helical Gear Unit

Over Driven

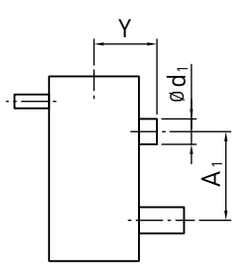
Type - H30

Triple Stage
Size 19 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft: i = 25 - 50 / i = 25 - 63 / i = 25 - 71			Input Shaft: i = 56 - 80 / i = 71 - 100 / i = 80 - 100			Input Shaft: i = 112						Output Shaft			Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	d	l	l_1	M	V	W	D	L	M_2	A_1	d_1 1)	Y 1)		
H3..19	35	110	60	30	110	60	25	100	50	190	240	320	90	165	180	340	150	265	445	-
H3..20	45	130	80	35	110	60	25	100	50	195	245	360	100	200	200	385	150	265	610	-
H3..21	50	130	80	40	130	80				240	290	360	110	200	220	430	190	340	810	-
H3..22	55	135	85	45	130	80	35	110	60	250	300	430	120	210	230	480	190	340	1080	-
H3..23	60	155	105	50	130	80	40	130	80	270	320	430	140	250	260	540	190	340	1455	-
H3..24	70	155	105	55	135	85				325	375	450	160	290	295	605	245	440	1950	-
H3..25	75	155	105	60	155	105	50	130	80	335	385	450	170	300	305	680	245	440	2655	-
H3..26	85	180	130	70	155	105	70	155	105	350	400	450	190	350	345	765	245	440	3525	-



Size	Foundation																								
	A	B	C	E	F	F_1	F_2	F_3	h	H 2)	K	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
H3..19	440	885	265	303	250	250	290	400	225	965		23	23	23	145	240	255	440	36	75	48.5	22	105	615	836
H3..20	495	987	288	314	270	270	340	440	250	1067		23	23	23	165	262	290	487	36	78	45	24	105	705	935
H3..21	555	1098	320	385	310	310	370	500	280	1188		27	27	27	180	295	315	545	45	85	65	28	120	780	1045
H3..22	620	1220	355	400	340	340	440	560	315	1310		27	27	27	200	325	355	605	45	90	60	28	120	880	1160
H3..23	700	1377	405	450	380	380	480	630	355	1467	655	33	33	33	220	370	405	685	55	110	70	35	150	985	1305
H3..24	785	1520	435	515	410	410	570	700	400	1610	740	33	33	33	245	398	450	753	55	110	87.5	35	150	1110	1443
H3..25	880	1690	475	535	460	460	670	800	450	1780	840	33	33	33	280	436	510	836	55	110	80	35	150	1245	1612
H3..26	990	1920	540	600	510	510	730	890	500	2020	940	39	39	39	315	495	575	945	65	130	100	45	175	1400	1830

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

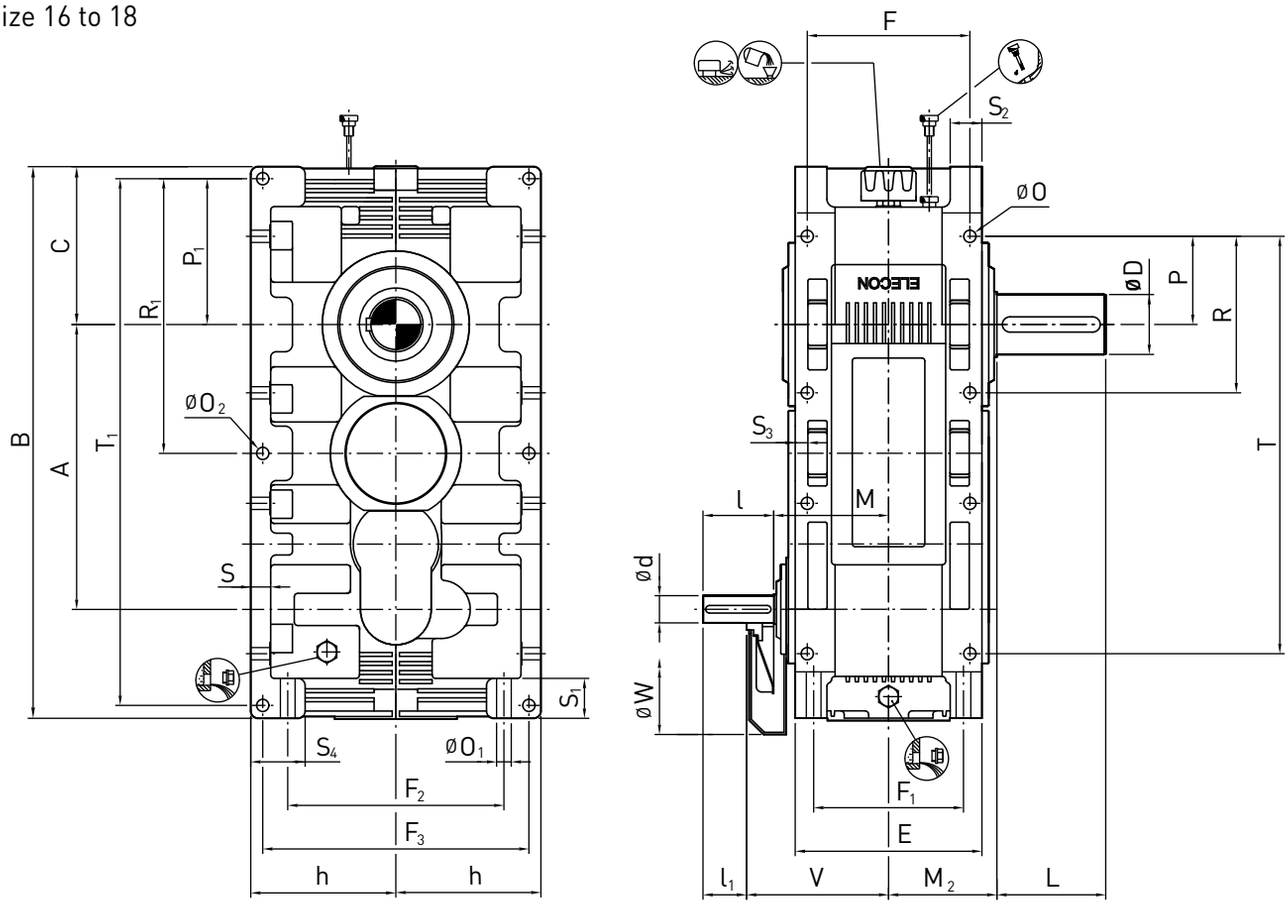
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Type - H3U

Under Driven

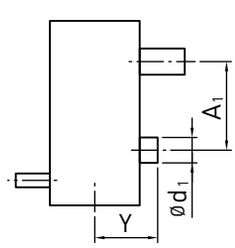
Helical Gear Unit

Triple Stage
Size 16 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft: i = 25-50 / i = 25-63 / i = 25-71			Input Shaft: i = 56-80 / i = 71-100 / i = 80-100			Input Shaft: i = 112						Output Shaft			Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	d	l	l_1	M	V	W	D	L	M_2	A_1	d_1 [1]	Y [1]		
H3..16	24	100	50	19	100	50	19	100	50	155	200	270	60	130	145	240	95	215	180	-
H3..17	28	100	50	24	100	50	19	100	50	160	205	270	70	135	150	270	95	215	240	-
H3..18	30	110	60	25	100	50				180	225	300	80	160	170	305	140	265	325	-



Size	Foundation																						
	A	B	C	E	F	F_1	F_2	F_3	h	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
H3..16	311	631	195	233	190	190	210	270	160	14	14	14	110	176	195	316	24	55	38	15	70	450	594
H3..17	350	696	210	250	210	210	220	310	180	18	18	18	115	190	210	350	32	60	40	20	90	495	655
H3..18	395	787	236	284	230	230	260	350	200	18	18	18	135	215	240	395	32	66	45	20	90	565	744

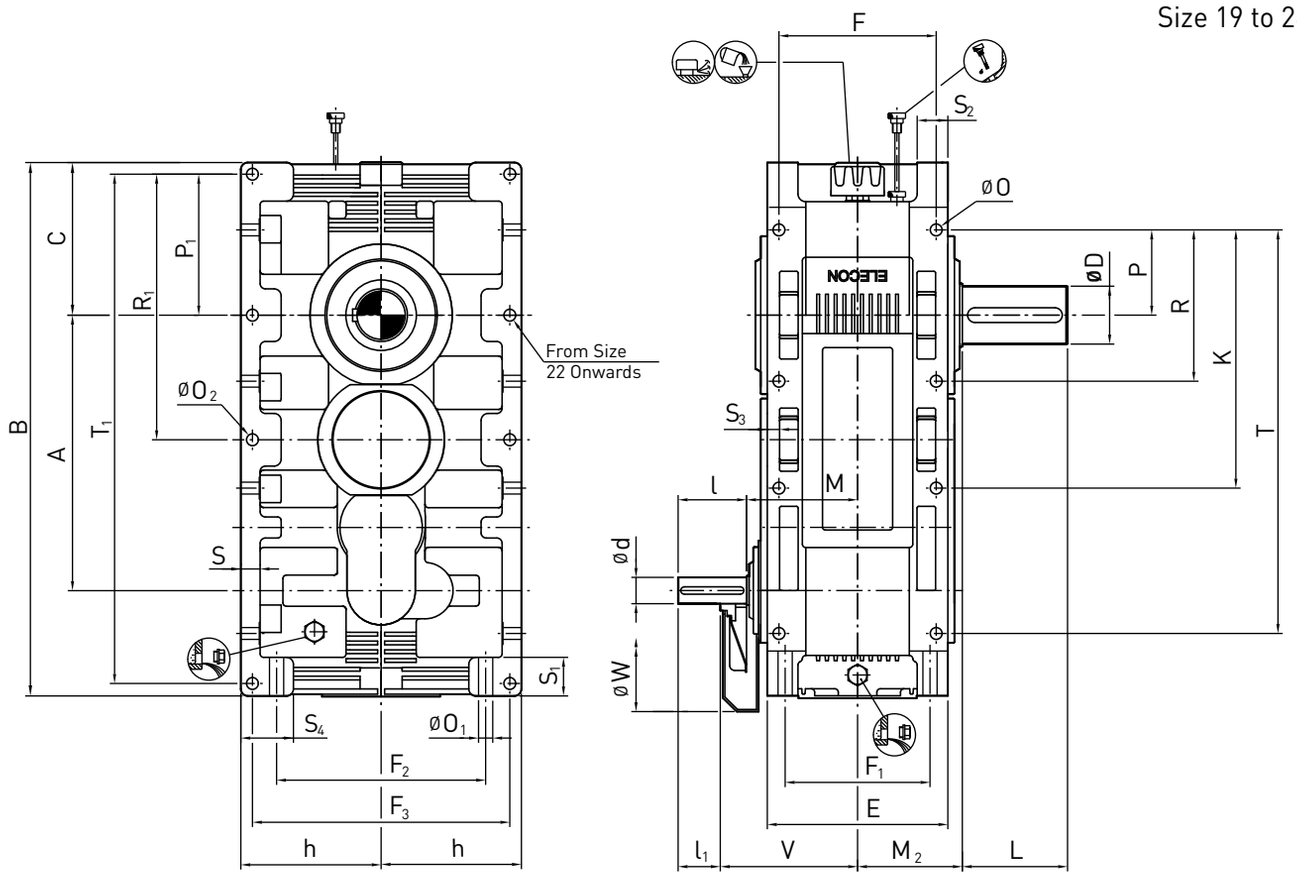
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Helical Gear Unit — Under Driven

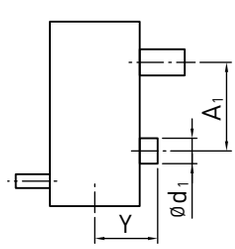
Type - H3U

Triple Stage
Size 19 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft: i = 25 - 50 / i = 25 - 63 / i = 25 - 71			Input Shaft: i = 56 - 80 / i = 71 - 100 / i = 80 - 100			Input Shaft: i = 112						Output Shaft			Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	d	l	l_1	M	V	W	D	L	M_2	A_1	d_1 1)	Y 1)		
H3..19	35	110	60	30	110	60	25	100	50	190	240	320	90	165	180	340	150	265	445	-
H3..20	45	130	80	35	110	60	25	100	50	195	245	360	100	200	200	385	150	265	610	-
H3..21	50	130	80	40	130	80				240	290	360	110	200	220	430	190	340	810	-
H3..22	55	135	85	45	130	80	35	110	60	250	300	430	120	210	230	480	190	340	1080	-
H3..23	60	155	105	50	130	80	40	130	80	270	320	430	140	250	260	540	190	340	1455	-
H3..24	70	155	105	55	135	85				325	375	450	160	290	295	605	245	440	1950	-
H3..25	75	155	105	60	155	105	50	130	80	335	385	450	170	300	305	680	245	440	2655	-
H3..26	85	180	130	70	155	105	70	155	105	350	400	450	190	350	345	765	245	440	3525	-



Size	Foundation																							
	A	B	C	E	F	F_1	F_2	F_3	h	K	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
H3..19	440	885	265	303	250	250	290	400	225		23	23	23	145	240	255	440	36	75	48.5	22	105	615	836
H3..20	495	987	288	314	270	270	340	440	250		23	23	23	165	262	290	487	36	78	45	24	105	705	935
H3..21	555	1098	320	385	310	310	370	500	280		27	27	27	180	295	315	545	45	85	65	28	120	780	1045
H3..22	620	1220	355	400	340	340	440	560	315		27	27	27	200	325	355	605	45	90	60	28	120	880	1160
H3..23	700	1377	405	450	380	380	480	630	355	655	33	33	33	220	370	405	685	55	110	70	35	150	985	1305
H3..24	785	1520	435	515	410	410	570	700	400	740	33	33	33	245	398	450	753	55	110	87.5	35	150	1110	1443
H3..25	880	1690	475	535	460	460	670	800	450	840	33	33	33	280	436	510	836	55	110	80	35	150	1245	1612
H3..26	990	1920	540	600	510	510	730	890	500	940	39	39	39	315	495	575	945	65	130	100	45	175	1400	1830

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

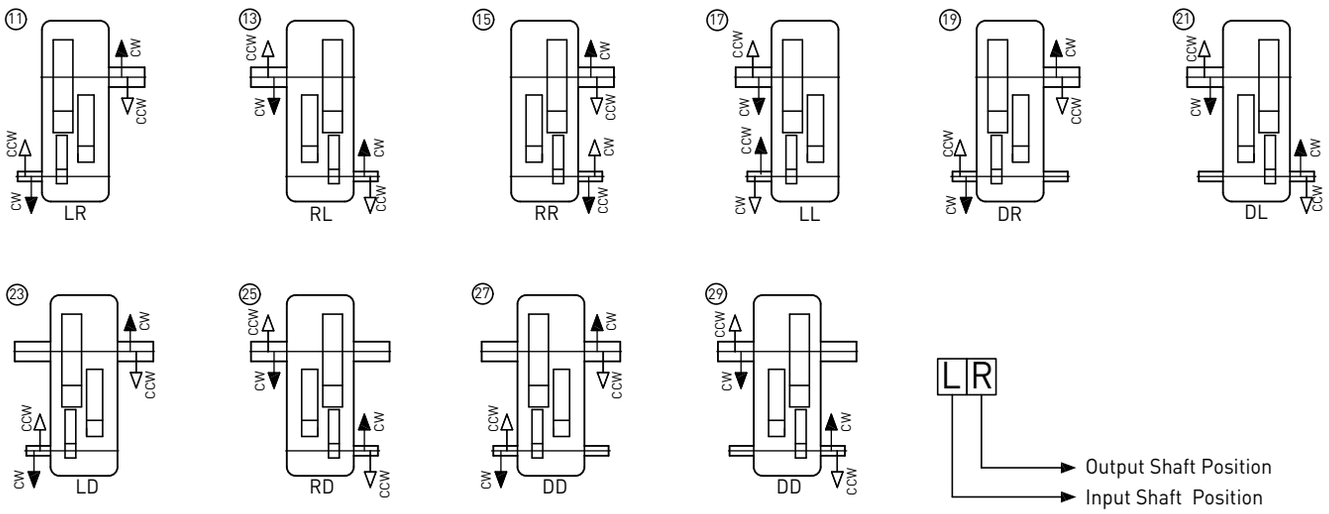
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

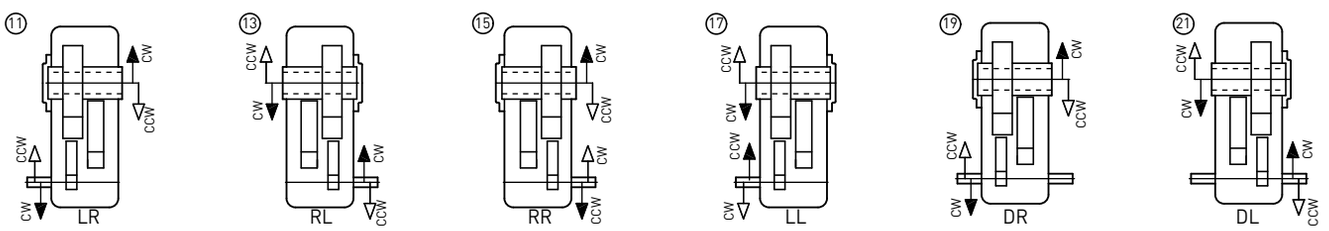
Type - **H3**

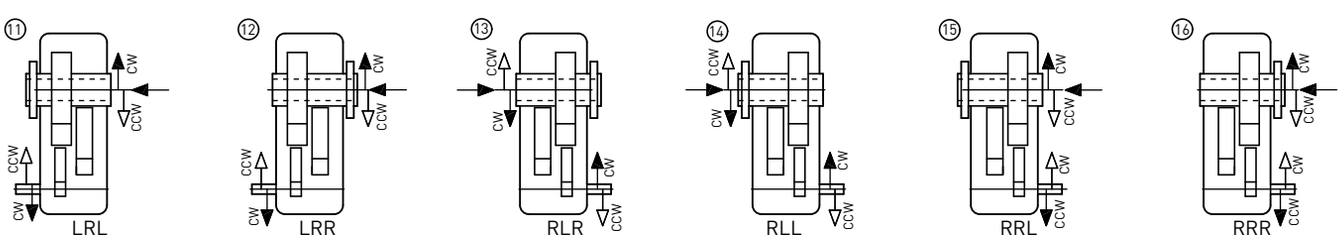
Triple Stage

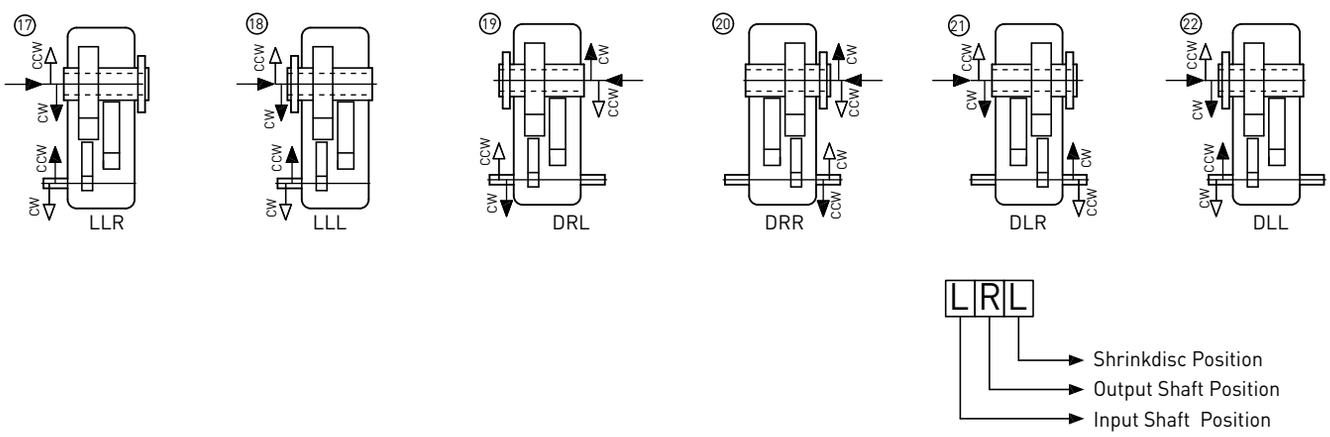
Shaft Arrangement

Helical Gear Unit







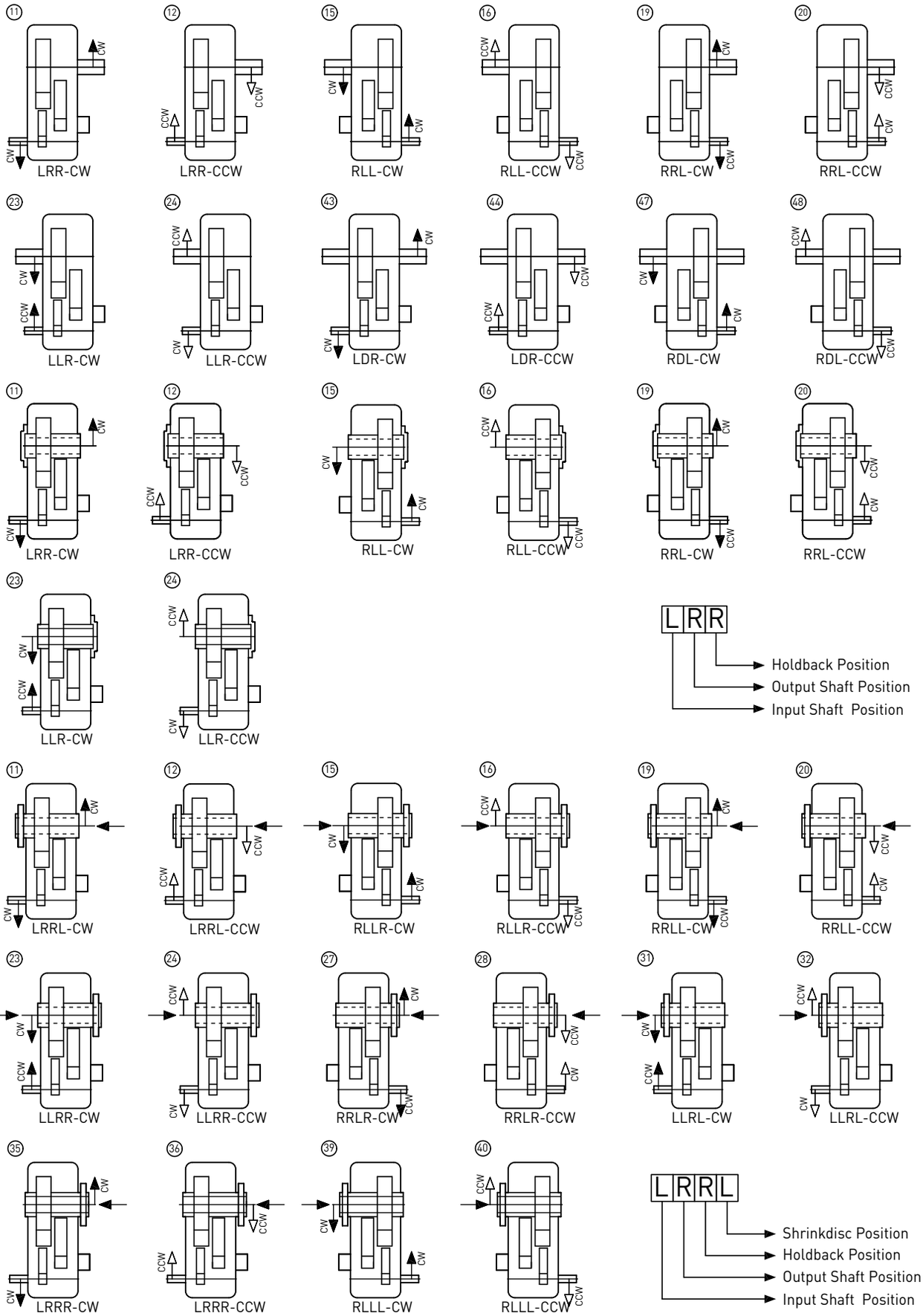


Helical Gear Unit

Shaft Arrangement - Hold Back

Type - **H3**

Triple Stage

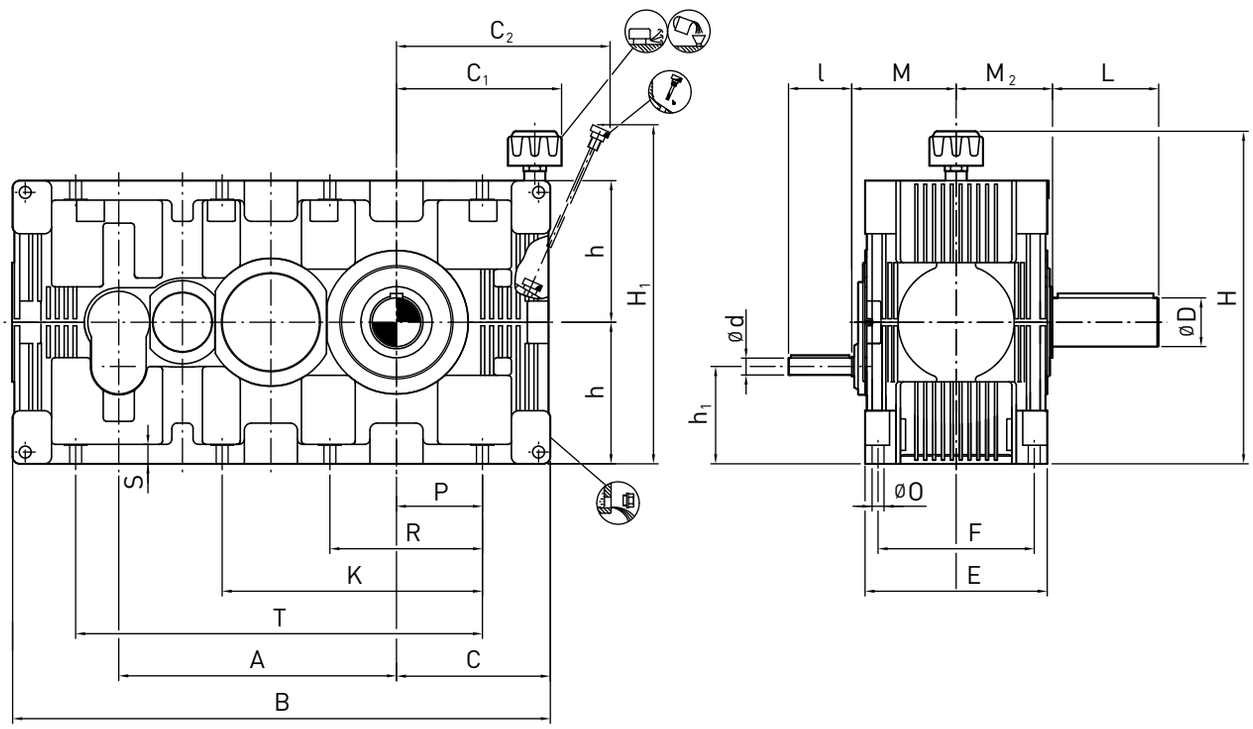


Type - **H4H**

Horizontal Mounting

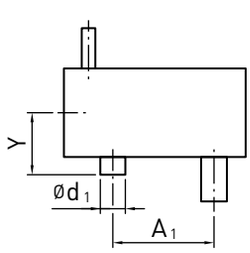
Helical Gear Unit

Quadruple Stage
Size 18 to 26



*For other shaft options refer page 125, 126 & 129 to 131

	Input Shaft i = 90 - 225 i = 125 - 355 i = 125 - 400		Input Shaft i = 250 - 450 i = 400 - 560 i = 450 - 560				Output Shaft			Backstop			Average Weight [kg]	Oil Quantity [Litres]
Size	d	l	d	l	M	h_1	D	L	M_2	A_1	d_1 [1]	Y [1]		
H4..18	20	50	19	50	170	137	80	160	170	395	95	255	325	13
H4..19	20	50	19	50	180	154	90	165	180	440	95	255	445	18
H4..20	20	50	20	50	190	170	100	200	200	495	95	255	610	22
H4..21	30	80	25	60	220	190	110	200	220	555	135	310	810	28
H4..22	35	80	25	60	230	215	120	210	230	620	135	310	1080	39
H4..23	40	110	35	80	260	245	140	250	260	700	140	310	1455	56
H4..24	40	110	40	110	295	275	160	290	295	785	175	415	1950	80
H4..25	45	110	45	110	305	310	170	300	305	880	175	415	2655	115
H4..26	50	110	50	110	345	340	190	350	345	990	190	415	3525	165



	Foundation															
Size	A	B	C	C_1 [2]	C_2 [1]	E	F	h	H_1 [1]	H [2]	K	O	P	R	S	T
H4..18	395	787	236	263	281	284	230	200	404	480		18	135	240	32	565
H4..19	440	885	265	283	315	303	250	225	455	530		23	145	255	36	615
H4..20	495	987	288	304	345	314	270	250	496	580		23	165	290	36	705
H4..21	555	1098	320	359	394	385	310	280	572	650		27	180	315	45	780
H4..22	620	1220	355	390	429	400	340	315	635	720		27	200	355	45	880
H4..23	700	1377	405	422	481	450	380	355	705	800	655	33	220	405	55	985
H4..24	785	1520	435	452	541	515	410	400	795	890	740	33	245	450	55	1110
H4..25	880	1690	475	493	591	535	460	450	865	990	840	33	280	510	55	1245
H4..26	990	1920	540	553	659	600	510	500	954	1090	940	39	315	575	65	1400

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

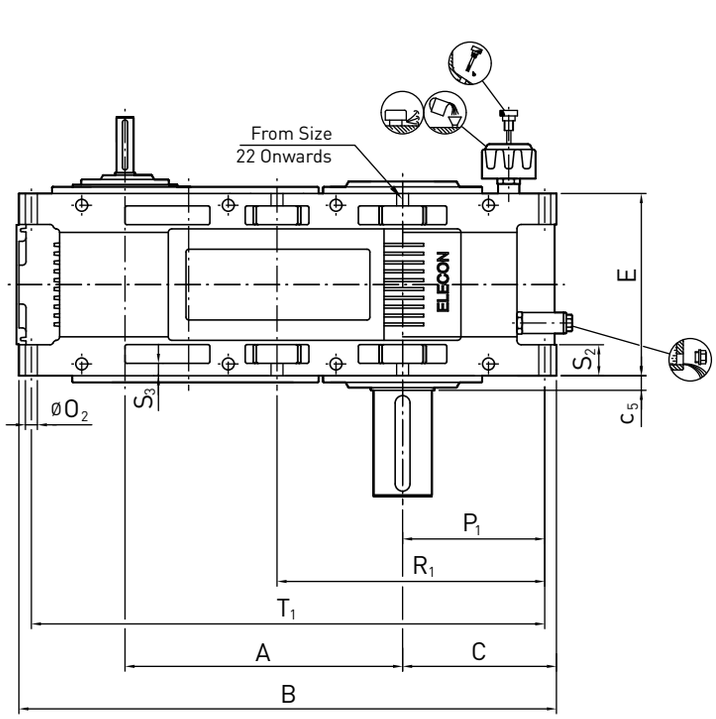
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

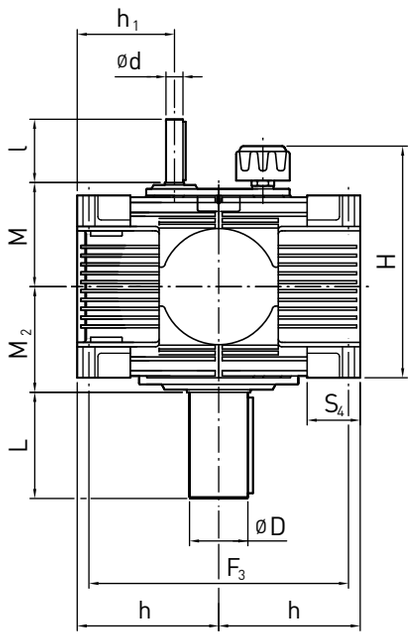
Helical Gear Unit

Vertical Mounting

Type - **H4V**

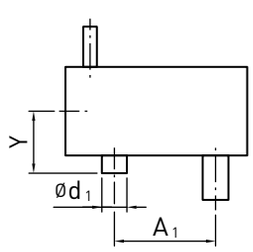
Quadruple Stage
Size 18 to 26





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft: i = 90 - 225 / i = 125 - 355 / i = 125 - 400 d	l	Input Shaft: i = 250 - 450 / i = 400 - 560 / i = 450 - 560 d	l	M	h_1	Output Shaft D	L	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
H4..18	20	50	19	50	170	137	80	160	170	395	95	255	325	-
H4..19	20	50	19	50	180	154	90	165	180	440	95	255	445	-
H4..20	20	50	20	50	190	170	100	200	200	495	95	255	610	-
H4..21	30	80	25	60	220	190	110	200	220	555	135	310	810	-
H4..22	35	80	25	60	230	215	120	210	230	620	135	310	1080	-
H4..23	40	110	35	80	260	245	140	250	260	700	140	310	1455	-
H4..24	40	110	40	110	295	275	160	290	295	785	175	415	1950	-
H4..25	45	110	45	110	305	310	170	300	305	880	175	415	2655	-
H4..26	50	110	50	110	345	340	190	350	345	990	190	415	3525	-



Size	Foundation A	B	C	C_5	E	F_3	h	H [2]	O_2	P_1	R_1	S_2	S_3	S_4	T_1
H4..18	395	787	236	28	284	350	200	364	18	215	395	45	20	90	744
H4..19	440	885	265	28.5	303	400	225	383	23	240	440	48.5	22	105	836
H4..20	495	987	288	43	314	440	250	394	23	262	487	45	24	105	935
H4..21	555	1098	320	27.5	385	500	280	475	27	295	545	65	28	120	1045
H4..22	620	1220	355	30	400	560	315	490	27	325	605	60	28	120	1160
H4..23	700	1377	405	35	450	630	355	540	33	370	685	70	35	150	1305
H4..24	785	1520	435	37.5	515	700	400	605	33	398	753	87.5	35	150	1443
H4..25	880	1690	475	37.5	535	800	450	625	33	436	836	80	35	150	1612
H4..26	990	1920	540	45	600	890	500	700	39	495	945	100	45	175	1830

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

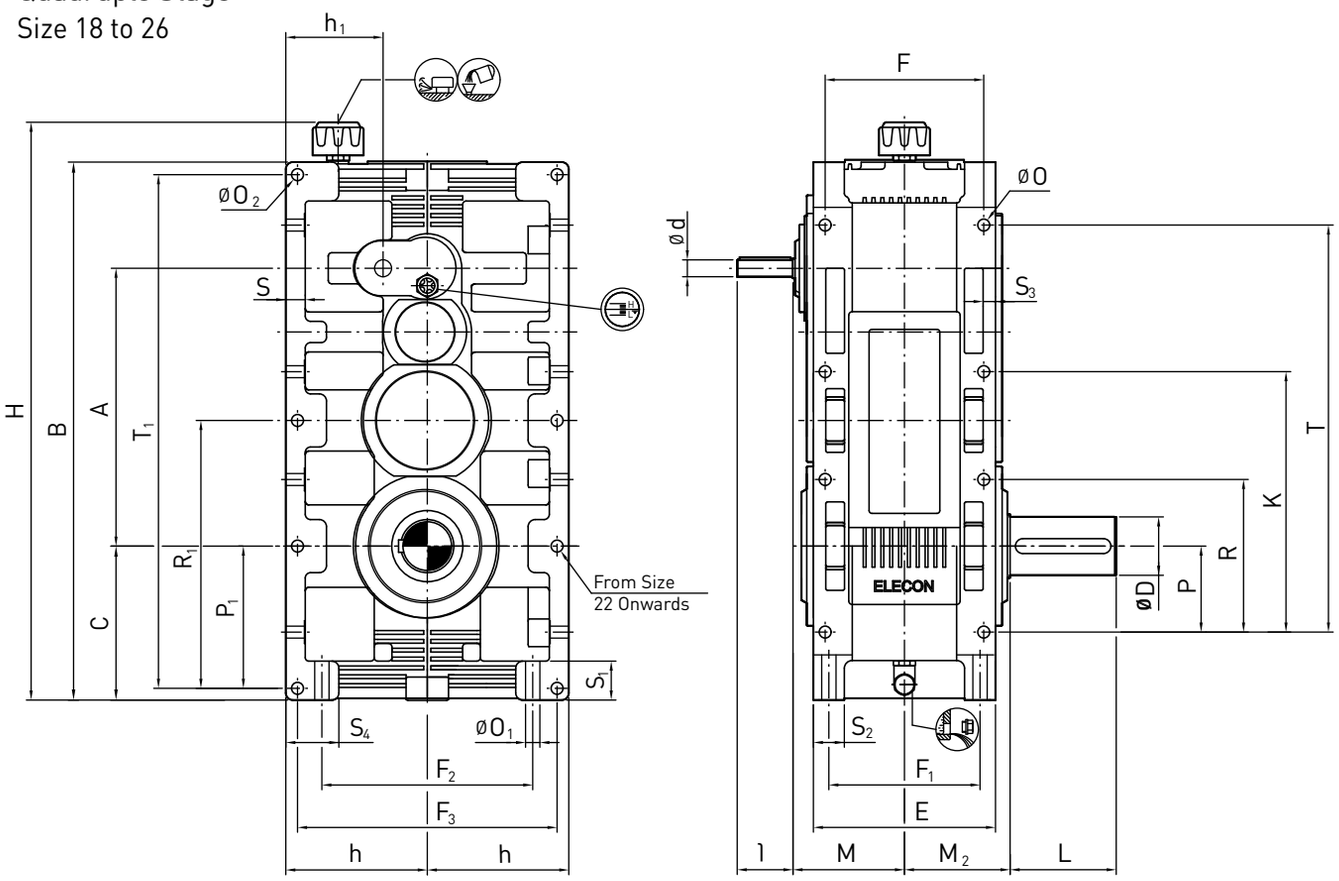
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Type - **H40**

Over Driven

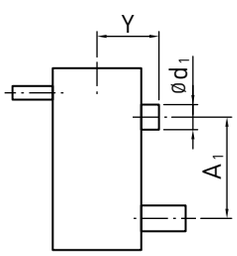
Helical Gear Unit

Quadruple Stage
Size 18 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 90 - 225 / i = 125 - 355 / i = 125 - 400 d	l	Input Shaft i = 250 - 450 / i = 400 - 560 / i = 450 - 560 d	l	M	h_1	Output Shaft D	L	M_2	Backstop A_1	d_1 [1)]	Y [1)]	Average Weight [kg]	Oil Quantity [Litres]
H4..18	20	50	19	50	170	137	80	160	170	395	95	255	325	-
H4..19	20	50	19	50	180	154	90	165	180	440	95	255	445	-
H4..20	20	50	20	50	190	170	100	200	200	495	95	255	610	-
H4..21	30	80	25	60	220	190	110	200	220	555	135	310	810	-
H4..22	35	80	25	60	230	215	120	210	230	620	135	310	1080	-
H4..23	40	110	35	80	260	245	140	250	260	700	140	310	1455	-
H4..24	40	110	40	110	295	275	160	290	295	785	175	415	1950	-
H4..25	45	110	45	110	305	310	170	300	305	880	175	415	2655	-
H4..26	50	110	50	110	345	340	190	350	345	990	190	415	3525	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	H [2)]	K	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
H4..18	395	787	236	284	230	230	260	350	200	867		18	18	18	135	215	240	395	32	66	45	20	90	565	744
H4..19	440	885	265	303	250	250	290	400	225	965		23	23	23	145	240	255	440	36	75	48.5	22	105	615	836
H4..20	495	987	288	314	270	270	340	440	250	1067		23	23	23	165	262	290	487	36	78	45	24	105	705	935
H4..21	555	1098	320	385	310	310	370	500	280	1188		27	27	27	180	295	315	545	45	85	65	28	120	780	1045
H4..22	620	1220	355	400	340	340	440	560	315	1310		27	27	27	200	325	355	605	45	90	60	28	120	880	1160
H4..23	700	1377	405	450	380	380	480	630	355	1467	655	33	33	33	220	370	405	685	55	110	70	35	150	985	1305
H4..24	785	1520	435	515	410	410	570	700	400	1610	740	33	33	33	245	398	450	753	55	110	87.5	35	150	1110	1443
H4..25	880	1690	475	535	460	460	670	800	450	1780	840	33	33	33	280	436	510	836	55	110	80	35	150	1245	1612
H4..26	990	1920	540	600	510	510	730	890	500	2020	940	39	39	39	315	495	575	945	65	130	100	45	175	1400	1830

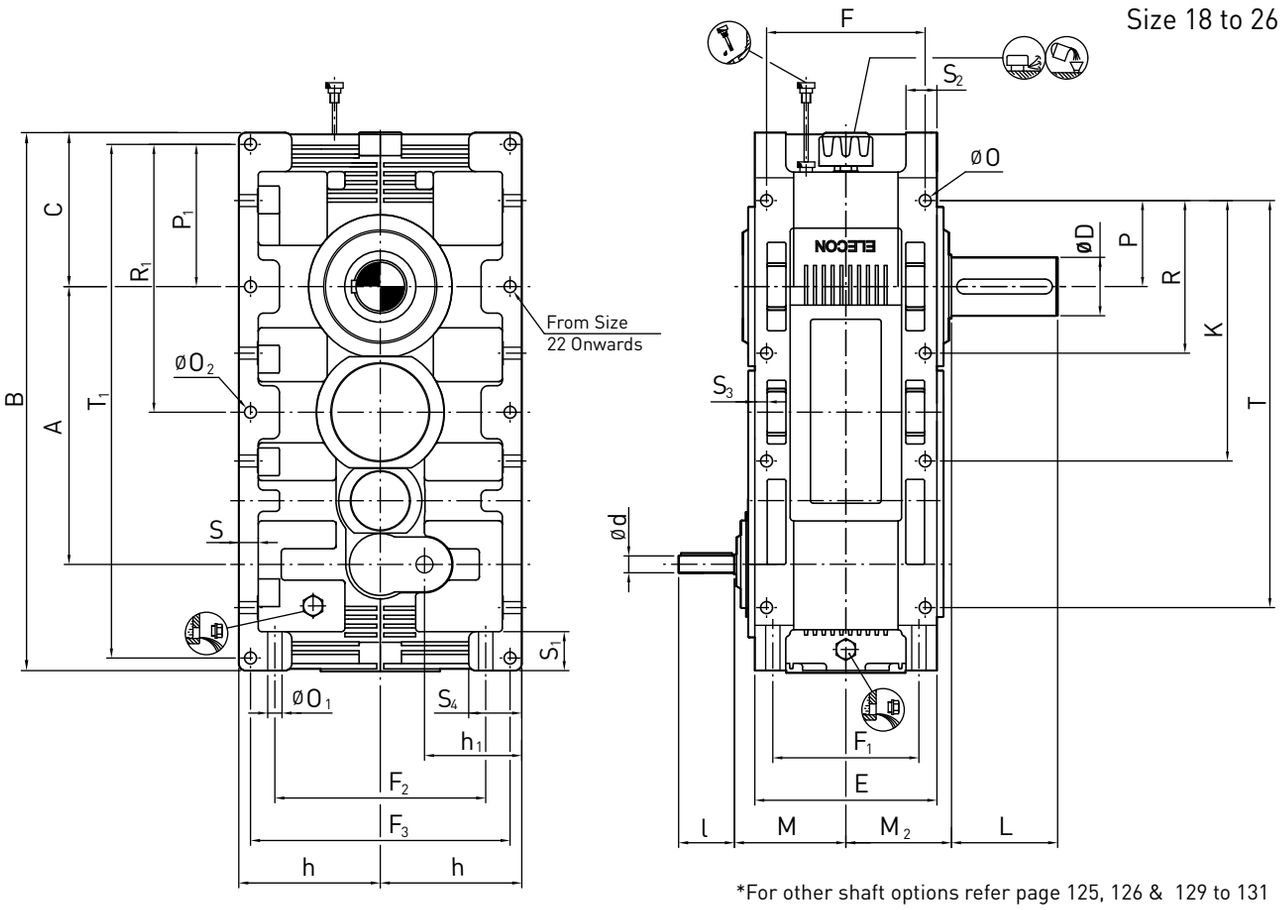
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Helical Gear Unit — Under Driven

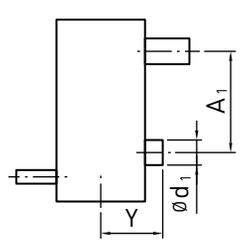
Type - **H4U**

Quadruple Stage
Size 18 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 90 - 225 / i = 125 - 355 / i = 125 - 400 d	l	Input Shaft i = 250 - 450 / i = 400 - 560 / i = 450 - 560 d	l	M	h_1	Output Shaft D	L	M_2	Backstop A_1	d_1 [1)]	Y [1)]	Average Weight [kg]	Oil Quantity [Litres]
H4..18	20	50	19	50	170	137	80	160	170	395	95	255	325	-
H4..19	20	50	19	50	180	154	90	165	180	440	95	255	445	-
H4..20	20	50	20	50	190	170	100	200	200	495	95	255	610	-
H4..21	30	80	25	60	220	190	110	200	220	555	135	310	810	-
H4..22	35	80	25	60	230	215	120	210	230	620	135	310	1080	-
H4..23	40	110	35	80	260	245	140	250	260	700	140	310	1455	-
H4..24	40	110	40	110	295	275	160	290	295	785	175	415	1950	-
H4..25	45	110	45	110	305	310	170	300	305	880	175	415	2655	-
H4..26	50	110	50	110	345	340	190	350	345	990	190	415	3525	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	K	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
H4..18	395	787	236	284	230	230	260	350	200		18	18	18	135	215	240	395	32	66	45	20	90	565	744
H4..19	440	885	265	303	250	250	290	400	225		23	23	23	145	240	255	440	36	75	48.5	22	105	615	836
H4..20	495	987	288	314	270	270	340	440	250		23	23	23	165	262	290	487	36	78	45	24	105	705	935
H4..21	555	1098	320	385	310	310	370	500	280		27	27	27	180	295	315	545	45	85	65	28	120	780	1045
H4..22	620	1220	355	400	340	340	440	560	315		27	27	27	200	325	355	605	45	90	60	28	120	880	1160
H4..23	700	1377	405	450	380	380	480	630	355	655	33	33	33	220	370	405	685	55	110	70	35	150	985	1305
H4..24	785	1520	435	515	410	410	570	700	400	740	33	33	33	245	398	450	753	55	110	87.5	35	150	1110	1443
H4..25	880	1690	475	535	460	460	670	800	450	840	33	33	33	280	436	510	836	55	110	80	35	150	1245	1612
H4..26	990	1920	540	600	510	510	730	890	500	940	39	39	39	315	495	575	945	65	130	100	45	175	1400	1830

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

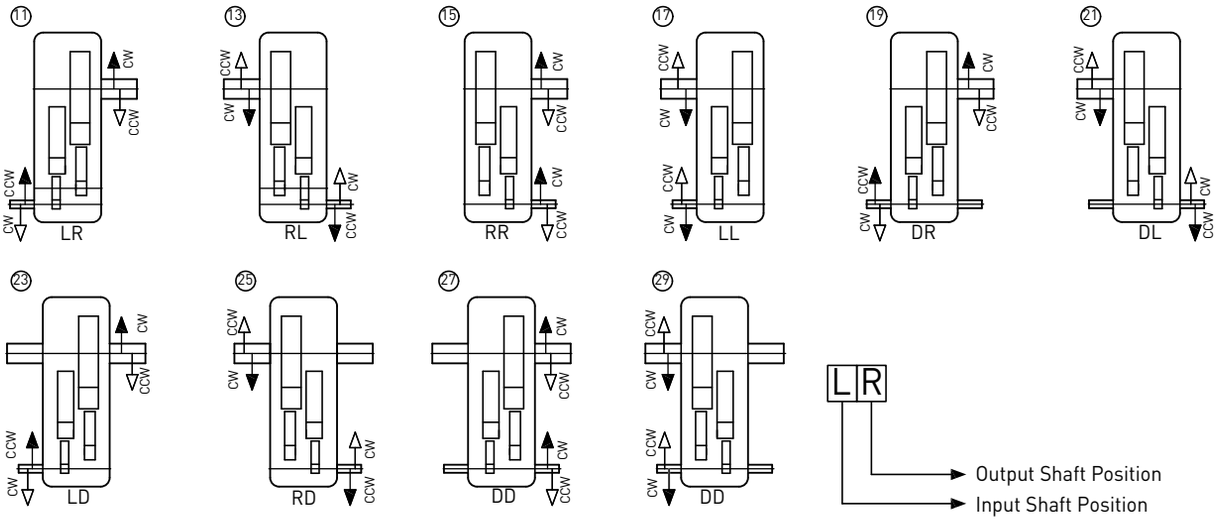
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

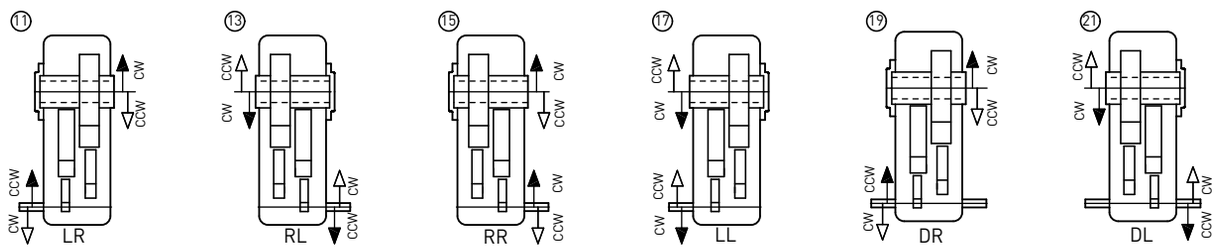
Type - **H4**

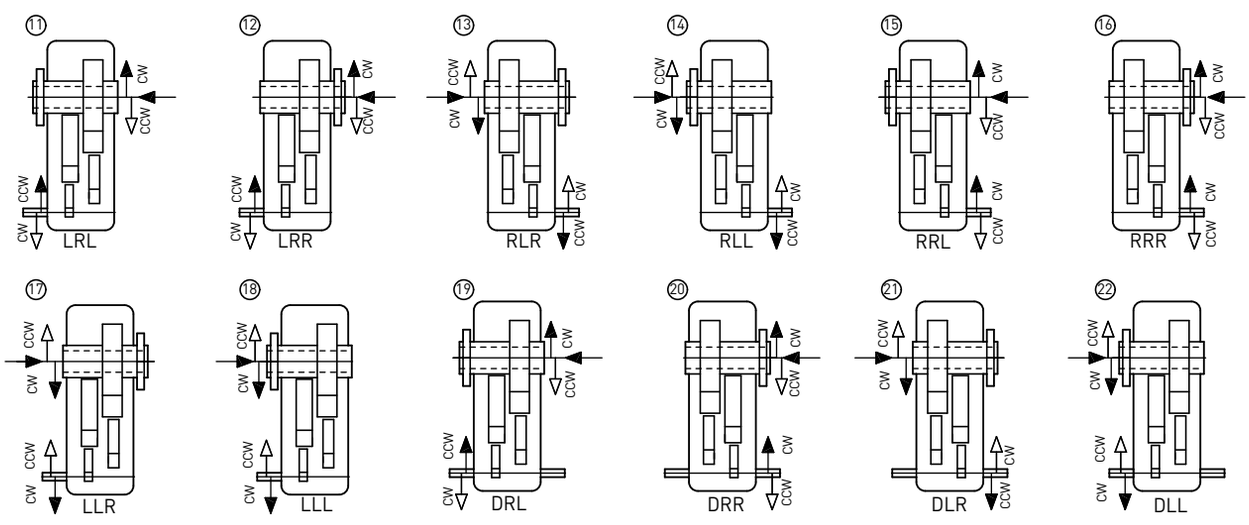
Quadruple Stage

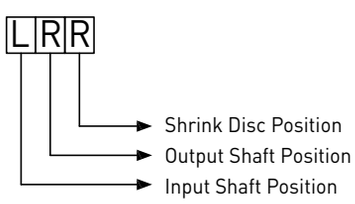
Shaft Arrangement

Helical Gear Unit







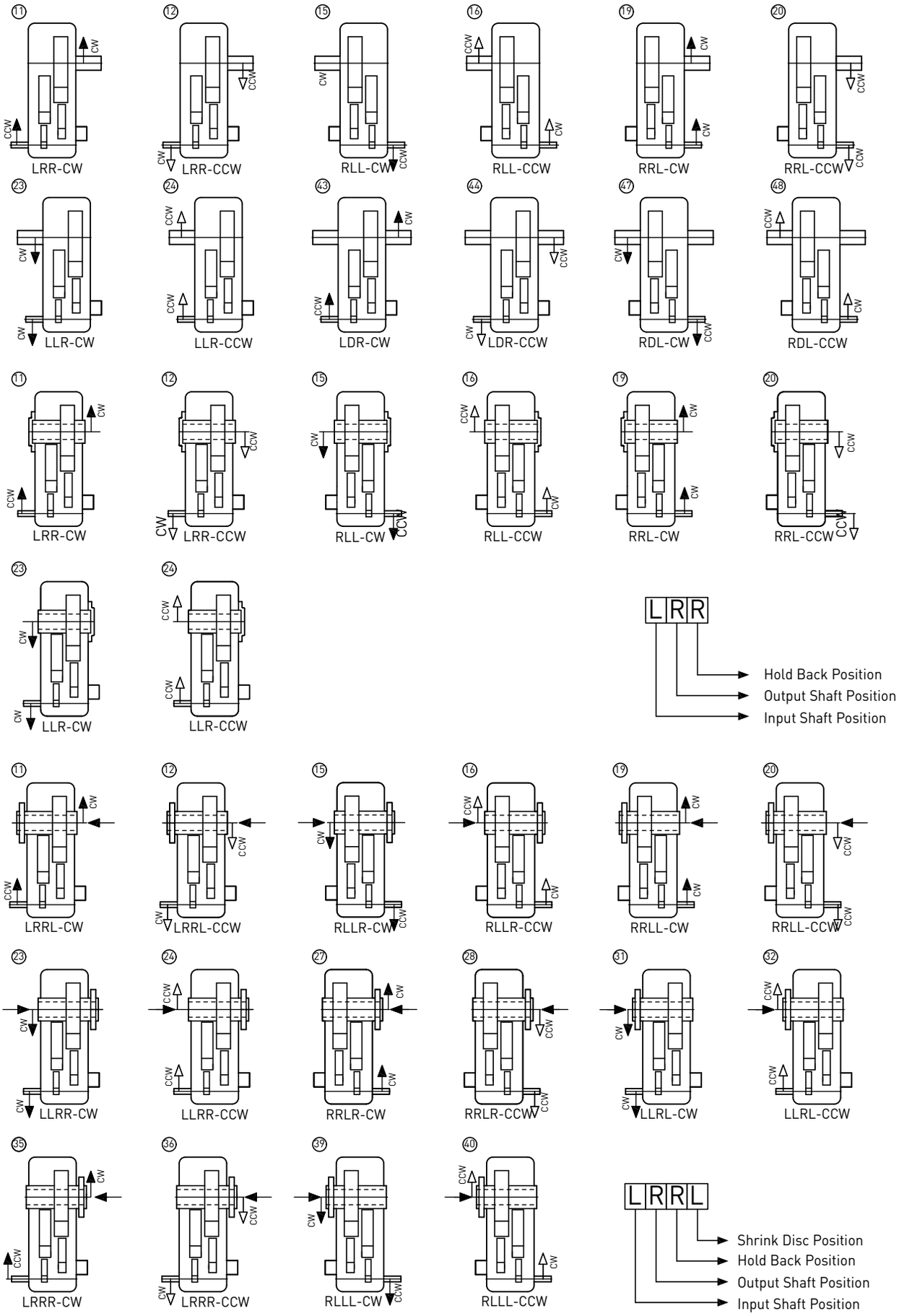


Helical Gear Unit

Shaft Arrangement - Hold Back

Type - **H4**

Quadruple Stage

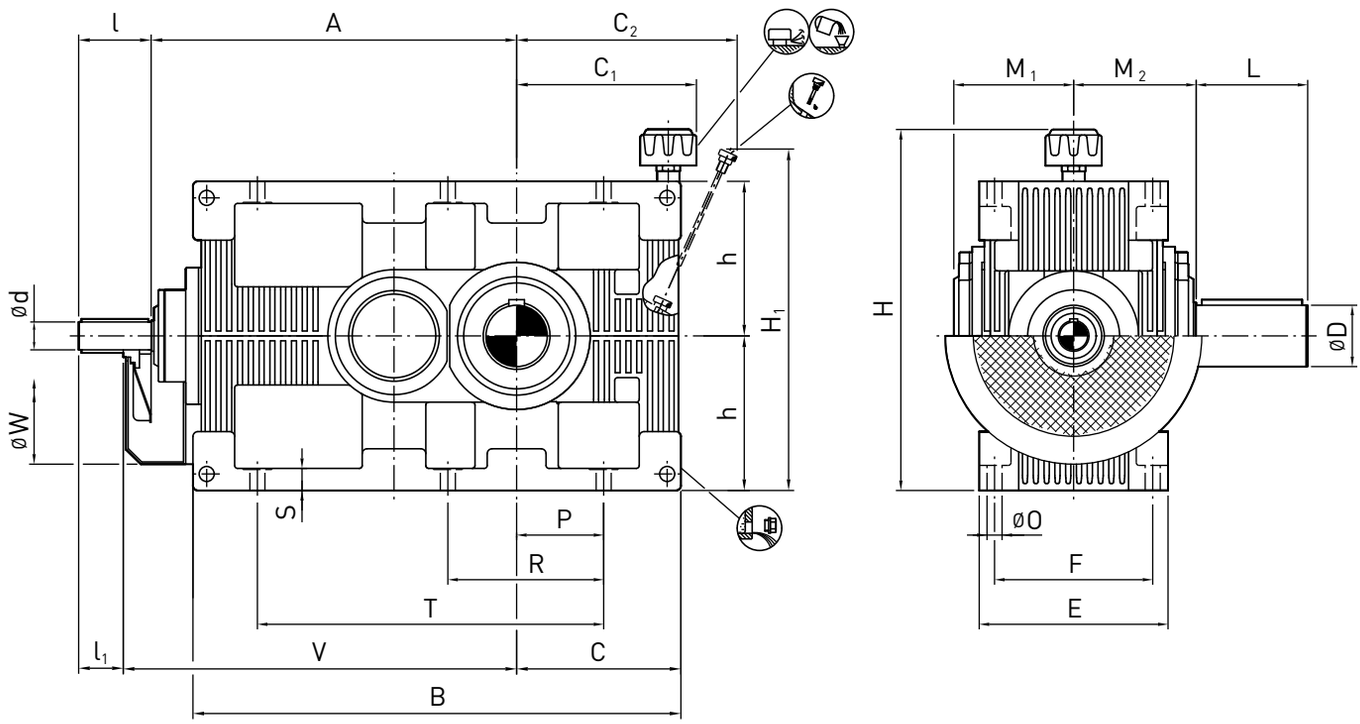


Type - **B2H**

Horizontal Mounting

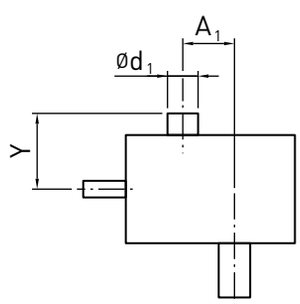
Bevel Helical Gear Unit

Double Stage
Size 11 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5-12.5 / i = 5.6-14 / i = 6.3-16			Input Shaft i = 14-18 / i = 16-20 / i = 18-22.4					Output Shaft				Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	V	W	D	L	M_1	M_2	A_1	d_1 [1]	Y [1]		
B2..11	19	90	40	19	90	40	325	210	32	55	94	105	80	95	180	40	1.5
B2..13	24	100	50	24	100	50	365	270	45	95	106	115	100	105	190	75	2.5
B2..15	32	110	60	28	100	50	460	300	55	95	127	135	125	140	255	135	4
B2..17	42	130	80	38	110	60	565	360	70	135	141	150	160	175	255	250	7
B2..18	48	130	80	42	130	80	635	360	80	160	158	170	180	190	305	330	9



Size	Foundation														
	A	B	C	C_1 [2]	C_2 [1]	E	F	h	H_1 [1]	H [2]	O	P	R	S	T
B2..11	275	356	140	176	171	180	150	100	248	260	14	50	95	24	215
B2..13	340	435	155	192	195	190	150	125	295	330	14	65	120	24	270
B2..15	415	520	182	218	231	228	170	160	352	400	14	95	170	24	355
B2..17	520	640	220	248	282	250	210	200	432	480	18	115	210	32	440
B2..18	585	716	246	273	311	284	230	225	475	530	18	135	240	32	505

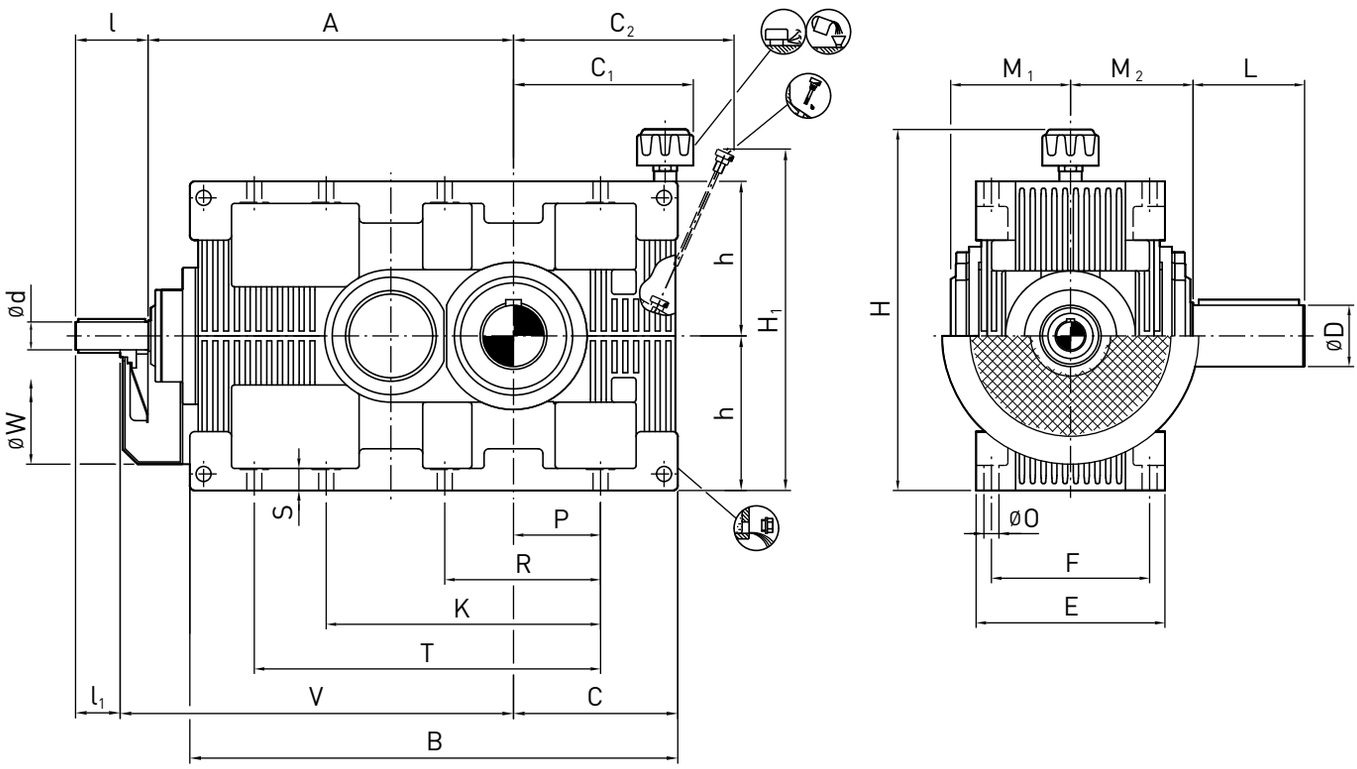
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Bevel Helical Gear Unit — Horizontal Mounting

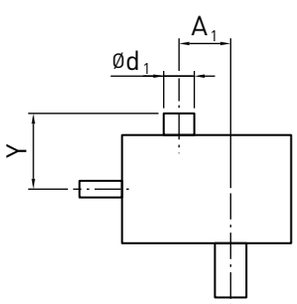
Type - B2H

Double Stage
Size 20 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5-12.5 / i = 5.6-14 / i = 6.3-16			Input Shaft i = 14-18 / i = 16-20 / i = 18-22.4					Output Shaft				Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	V	W	D	L	M_1	M_2	A_1	d_1 [1]	Y [1]		
B2..20	58	135	85	52	135	85	780	460	100	200	176	200	225	210	305	595	18
B2..21	65	155	105	65	155	105	860	530	110	200	210	220	250	245	390	795	25
B2..22	70	155	105	70	155	105	950	550	120	210	220	230	280	290	390	1080	36
B2..23	85	180	130	80	180	130	1050	550	140	250	234	260	315	290	390	1455	51
B2..24	90	180	130	90	180	130	1170	650	160	290	283	295	355	310	470	1960	69
B2..25	100	220	170	100	220	170	1300	700	170	300	293	305	400	310	470	2650	95
B2..26	110	220	170	110	220	170	1450	700	190	350	306	345	450	400	470	3570	130



Size	Foundation															
	A	B	C	C_1 [2]	C_2 [1]	E	F	h	H_1 [1]	H [2]	K	O	P	R	S	T
B2..20	720	893	303	319	387	314	270	280	588	640		23	165	290	36	635
B2..21	790	995	335	374	435	385	310	315	664	720		27	180	315	45	705
B2..22	875	1095	370	405	474	400	340	355	741	800		27	200	355	45	785
B2..23	975	1250	425	442	537	450	380	400	831	890		33	220	405	55	875
B2..24	1085	1365	465	482	598	515	410	450	908	990		33	245	450	55	975
B2..25	1215	1505	510	528	670	535	460	500	1013	1090		33	280	510	55	1105
B2..26	1365	1710	580	593	753	600	510	560	1137	1210	940	39	315	575	65	1245

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

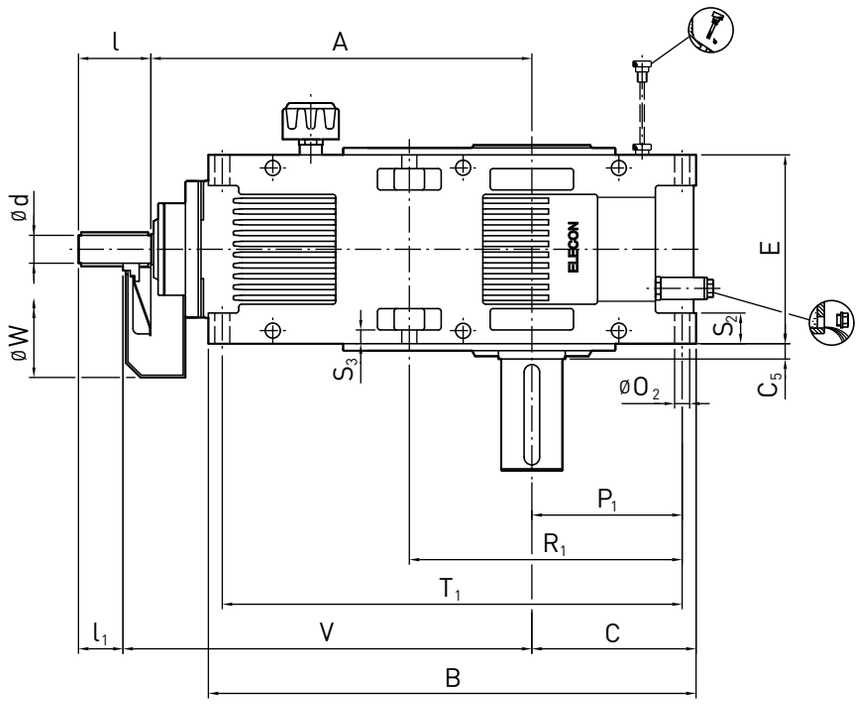
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

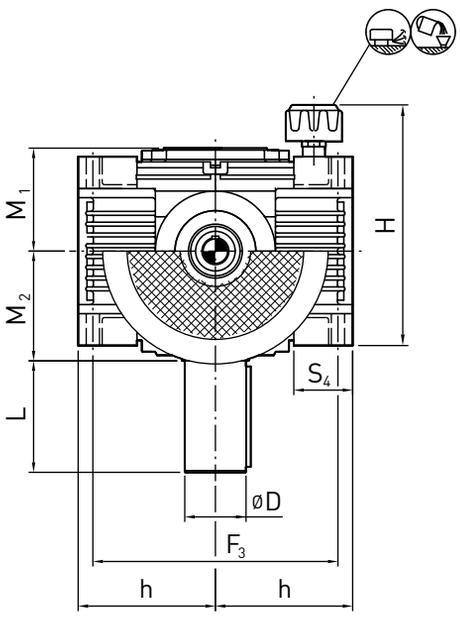
Type - **B2V**

Vertical Mounting

Bevel Helical Gear Unit

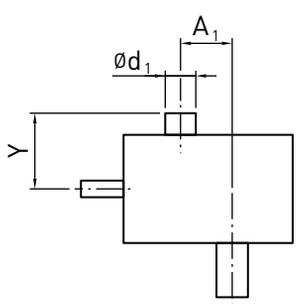
Double Stage
Size 11 to 18





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5-12.5 / i = 5.6-14 / i = 6.3-16			Input Shaft i = 14-18 / i = 16-20 / i = 18-22.4					Output Shaft				Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	V	W	D	L	M_1	M_2	A_1	d_1 [1]	Y [1]		
B2..11	19	90	40	19	90	40	325	210	32	55	94	105	80	95	180	40	-
B2..13	24	100	50	24	100	50	365	270	45	95	106	115	100	105	190	75	-
B2..15	32	110	60	28	100	50	460	300	55	95	127	135	125	140	255	135	-
B2..17	42	130	80	38	110	60	565	360	70	135	141	150	160	175	255	250	-
B2..18	48	130	80	42	130	80	635	360	80	160	158	170	180	190	305	330	-



Size	Foundation A	B	C	C_5	E	F_3	h	H [2]	O_2	P_1	R_1	S_2	S_3	S_4	T_1
B2..11	275	356	140	22.5	180	160	100	225	14	124			14	66	324
B2..13	340	435	155	20	190	210	125	270	14	140			15	66	406
B2..15	415	520	182	21	228	270	160	308	14	165	290	45	15	70	486
B2..17	520	640	220	25	250	350	200	330	18	202	362	40	20	90	604
B2..18	585	716	246	28	284	400	225	364	18	224	404	45	20	90	672

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

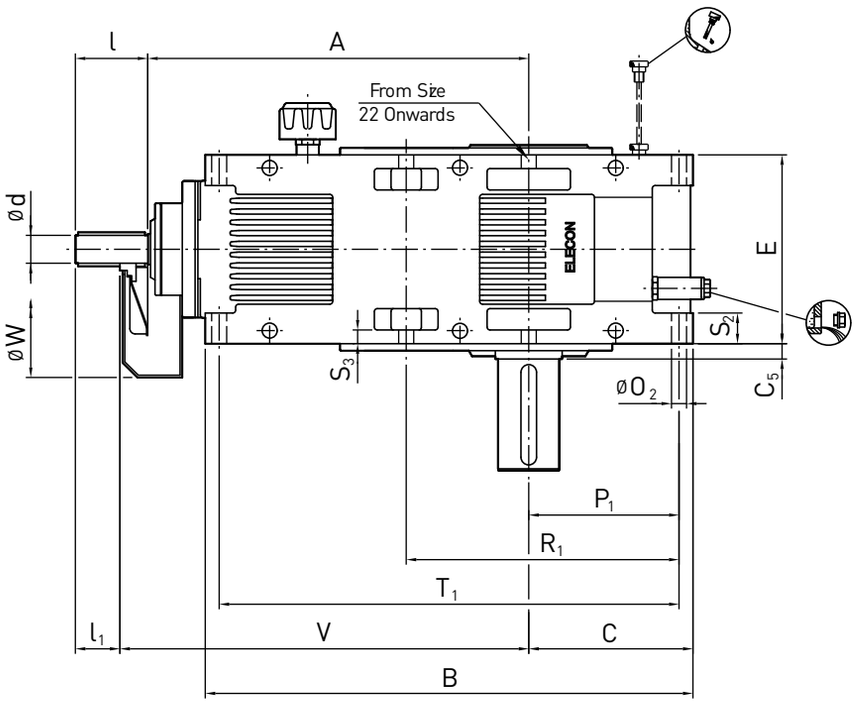
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

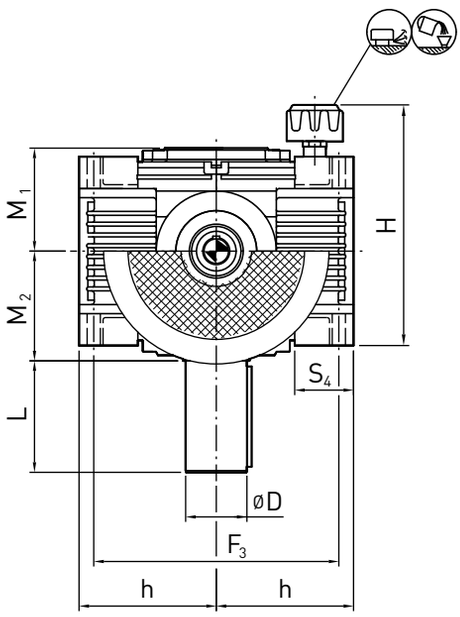
Bevel Helical Gear Unit

Vertical Mounting

Type - **B2V**

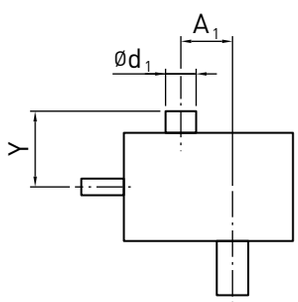
Double Stage
Size 20 to 26





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5-12.5 i = 5.6-14 i = 6.3-16			Input Shaft i = 14-18 i = 16-20 i = 18-22.4					Output Shaft				Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	V	W	D	L	M_1	M_2	A_1	d_1 [1]	Y [1]		
B2..20	58	135	85	52	135	85	780	460	100	200	176	200	225	210	305	595	-
B2..21	65	155	105	65	155	105	860	530	110	200	210	220	250	245	390	795	-
B2..22	70	155	105	70	155	105	950	550	120	210	220	230	280	290	390	1080	-
B2..23	85	180	130	80	180	130	1050	550	140	250	234	260	315	290	390	1455	-
B2..24	90	180	130	90	180	130	1170	650	160	290	283	295	355	310	470	1960	-
B2..25	100	220	170	100	220	170	1300	700	170	300	293	305	400	310	470	2650	-
B2..26	110	220	170	110	220	170	1450	700	190	350	306	345	450	400	470	3570	-



Size	Foundation														
	A	B	C	C_5	E	F_3	h	H [2]	O_2	P_1	R_1	S_2	S_3	S_4	T_1
B2..20	720	893	303	43	314	500	280	394	23	276	501	45	24	105	839
B2..21	790	995	335	27.5	385	570	315	475	27	305	555	65	28	120	935
B2..22	875	1095	370	30	400	640	355	490	27	339	619	60	28	120	1033
B2..23	975	1250	425	35	450	720	400	540	33	386	701	70	35	150	1173
B2..24	1085	1365	465	37.5	515	800	450	605	33	426	781	87.5	35	150	1287
B2..25	1215	1505	510	37.5	535	900	500	625	33	474	874	80	35	150	1432
B2..26	1365	1710	580	45	600	1010	560	700	39	532	982	100	45	175	1614

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

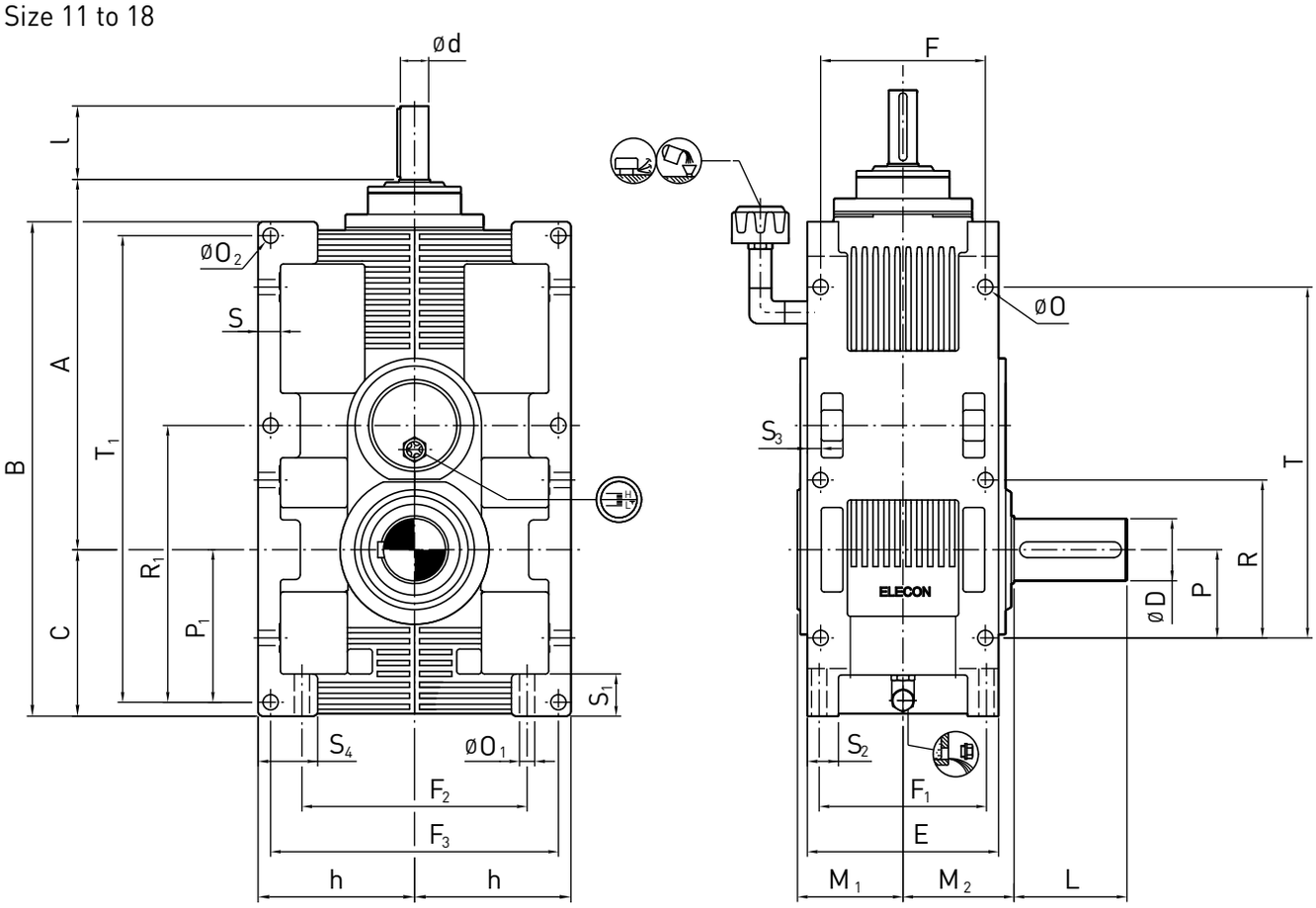
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Type - **B20**

Over Driven

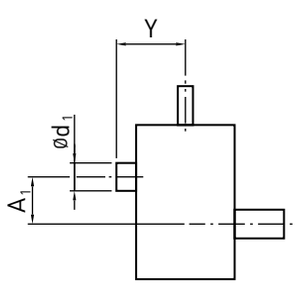
Bevel Helical Gear Unit

Double Stage
Size 11 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5-12.5 / i = 5.6-14 / i = 6.3-16 d	Input Shaft i = 5-12.5 / i = 5.6-14 / i = 6.3-16 l	Input Shaft i = 14-18 / i = 16-20 / i = 18-22.4 d	Input Shaft i = 14-18 / i = 16-20 / i = 18-22.4 l	Output Shaft D	Output Shaft L	Output Shaft M_1	Output Shaft M_2	Backstop A_1	Backstop d_1 [1]	Backstop Y [1]	Average Weight [kg]	Oil Quantity [Litres]
B2..11	19	90	19	90	32	55	94	105	80	95	180	40	-
B2..13	24	100	24	100	45	95	106	115	100	105	190	75	-
B2..15	32	110	28	100	55	95	127	135	125	140	255	135	-
B2..17	42	130	38	110	70	135	141	150	160	175	255	250	-
B2..18	48	130	42	130	80	160	158	170	180	190	305	330	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
B2..11	275	356	140	180	150	105	100	160	100	14	14	14	50	124	95		24	50		14	66	215	324
B2..13	340	435	155	190	150	130	150	210	125	14	14	14	65	140	120		24	50		15	66	270	406
B2..15	415	520	182	228	170	170	210	270	160	14	14	14	95	165	170	290	24	52	45	15	70	355	486
B2..17	520	640	220	250	210	210	260	350	200	18	18	18	115	202	210	362	32	60	40	20	90	440	604
B2..18	585	716	246	284	230	230	310	400	225	18	18	18	135	224	240	404	32	66	45	20	90	505	672

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

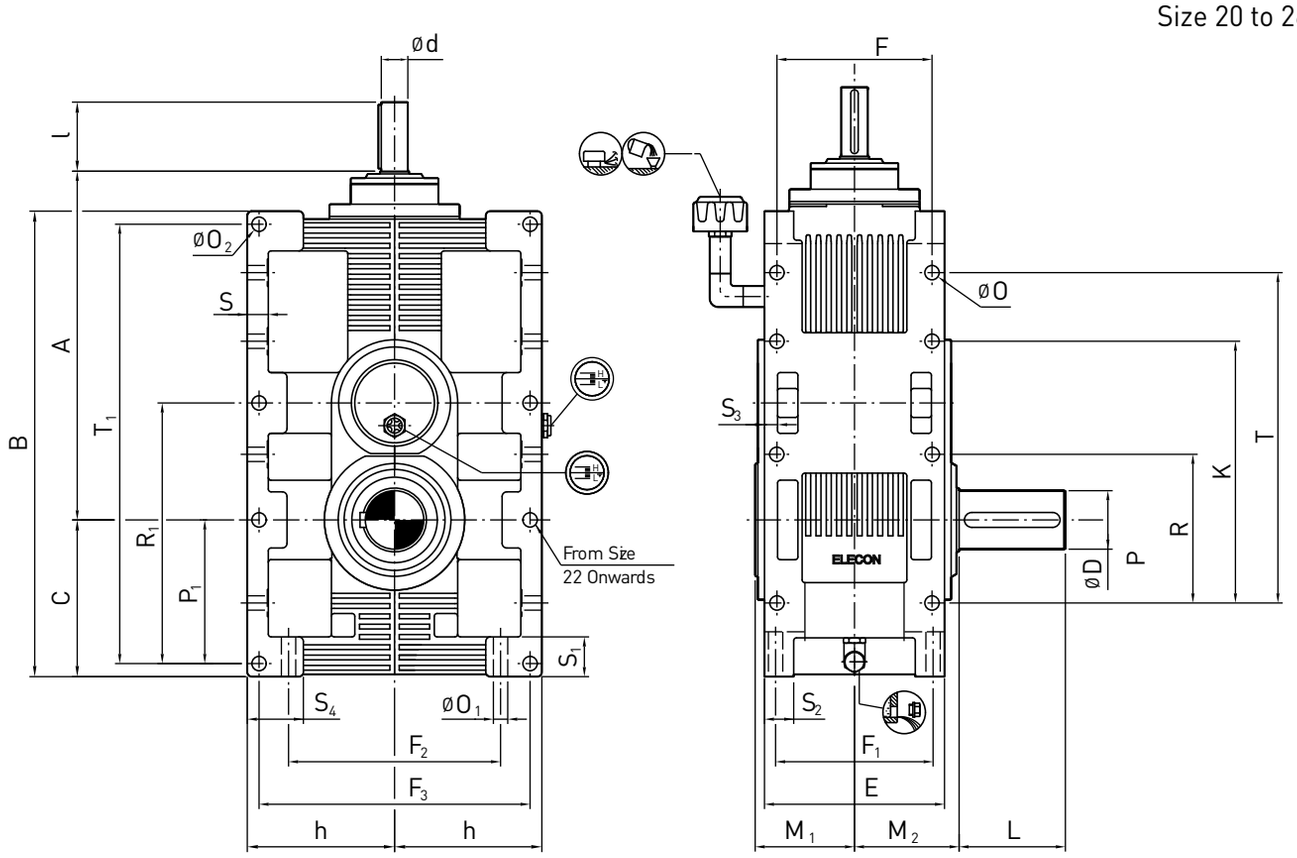
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Bevel Helical Gear Unit

Over Driven

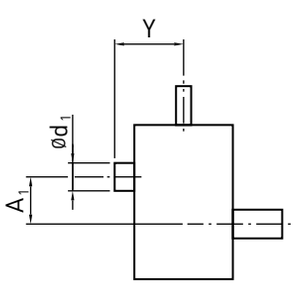
Type - B20

Double Stage
Size 20 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5-12.5 / i = 5.6-14 / i = 6.3-16 d	Input Shaft i = 5-12.5 / i = 5.6-14 / i = 6.3-16 l	Input Shaft i = 14-18 / i = 16-20 / i = 18-22.4 d	Input Shaft i = 14-18 / i = 16-20 / i = 18-22.4 l	Output Shaft D	Output Shaft L	Output Shaft M_1	Output Shaft M_2	Backstop A_1	Backstop d_1 [1]	Backstop Y [1]	Average Weight [kg]	Oil Quantity [Litres]
B2..20	58	135	52	135	100	200	176	200	225	210	305	595	-
B2..21	65	155	65	155	110	200	210	220	250	245	390	795	-
B2..22	70	155	70	155	120	210	220	230	280	290	390	1080	-
B2..23	85	180	80	180	140	250	234	260	315	290	390	1455	-
B2..24	90	180	90	180	160	290	283	295	355	310	470	1960	-
B2..25	100	220	100	220	170	300	293	305	400	310	470	2650	-
B2..26	110	220	110	220	190	350	306	345	450	400	470	3570	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	K	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
B2..20	720	893	303	314	270	270	400	500	280		23	23	23	165	276	290	501	36	78	45	24	105	635	839
B2..21	790	995	335	385	310	310	440	570	315		27	27	27	180	305	315	555	45	85	65	28	120	705	935
B2..22	875	1095	370	400	340	340	520	640	355		27	27	27	200	339	355	619	45	90	60	28	120	785	1033
B2..23	975	1250	425	450	380	380	570	720	400		33	33	33	220	386	405	701	55	110	70	35	150	875	1173
B2..24	1085	1365	465	515	410	410	670	800	450		33	33	33	245	426	450	781	55	110	87.5	35	150	975	1287
B2..25	1215	1505	510	535	460	460	770	900	500		33	33	33	280	474	510	874	55	110	80	35	150	1105	1432
B2..26	1365	1710	580	600	510	510	850	1010	560	940	39	39	39	315	532	575	982	65	130	100	45	175	1245	1614

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

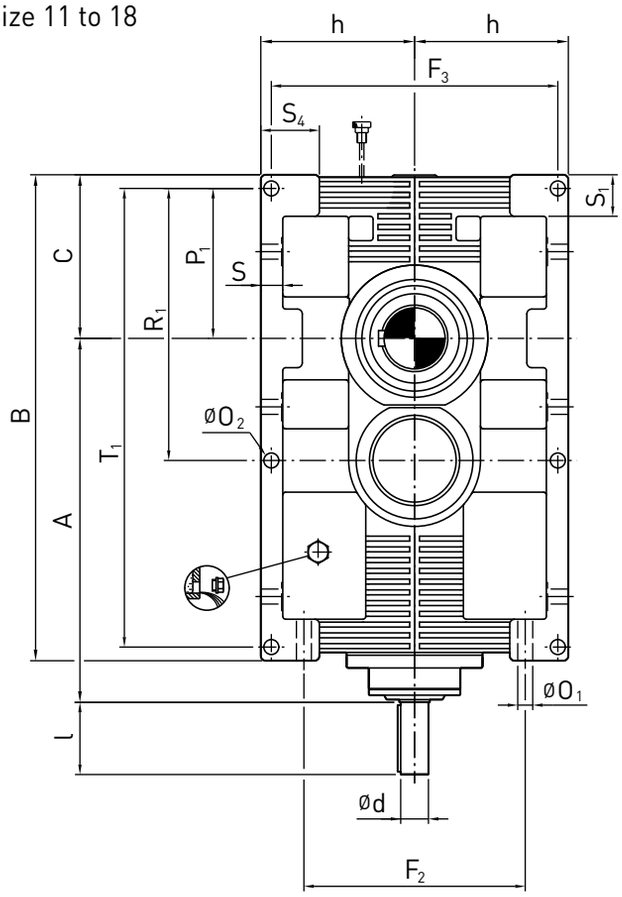
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

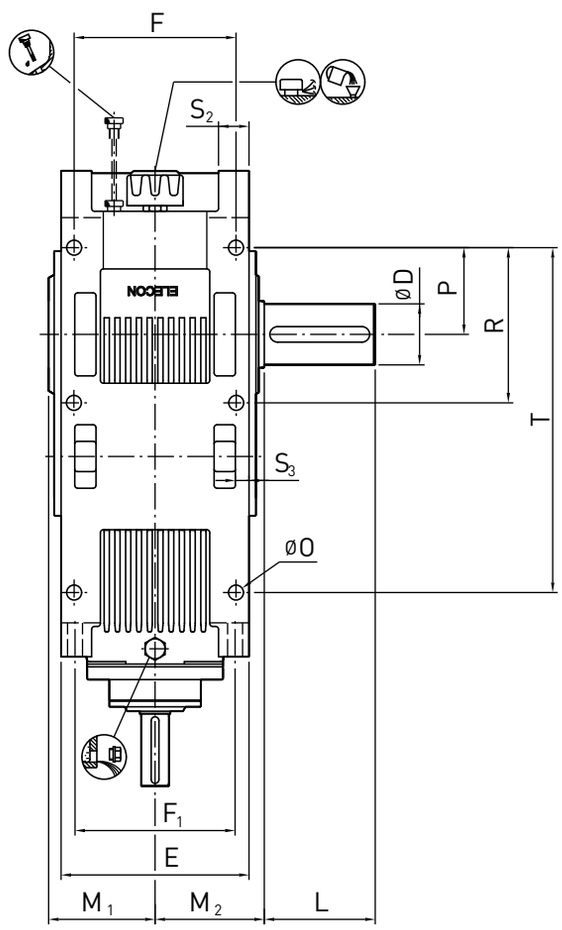
Type - **B2U**

Under Driven

Bevel Helical Gear Unit

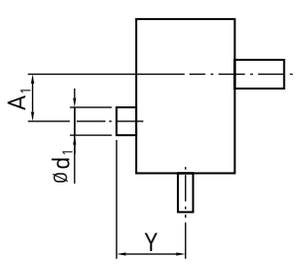
Double Stage
Size 11 to 18





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5-12.5 i = 5.6-14 i = 6.3-16 d	Input Shaft i = 5-12.5 i = 5.6-14 i = 6.3-16 l	Input Shaft i = 14-18 i = 16-20 i = 18-22.4 d	Input Shaft i = 14-18 i = 16-20 i = 18-22.4 l	Output Shaft D	Output Shaft L	Output Shaft M_1	Output Shaft M_2	Backstop A_1	Backstop d_1 [1]	Backstop Y [1]	Average Weight [kg]	Oil Quantity [Litres]
B2..11	19	90	19	90	32	55	94	105	80	95	180	40	-
B2..13	24	100	24	100	45	95	106	115	100	105	190	75	-
B2..15	32	110	28	100	55	95	127	135	125	140	255	135	-
B2..17	42	130	38	110	70	135	141	150	160	175	255	250	-
B2..18	48	130	42	130	80	160	158	170	180	190	305	330	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
B2..11	275	356	140	180	150	105	100	160	100	14	14	14	50	124	95		24	50		14	66	215	324
B2..13	340	435	155	190	150	130	150	210	125	14	14	14	65	140	120		24	50		15	66	270	406
B2..15	415	520	182	228	170	170	210	270	160	14	14	14	95	165	170	290	24	52	45	15	70	355	486
B2..17	520	640	220	250	210	210	260	350	200	18	18	18	115	202	210	362	32	60	40	20	90	440	604
B2..18	585	716	246	284	230	230	310	400	225	18	18	18	135	224	240	404	32	66	45	20	90	505	672

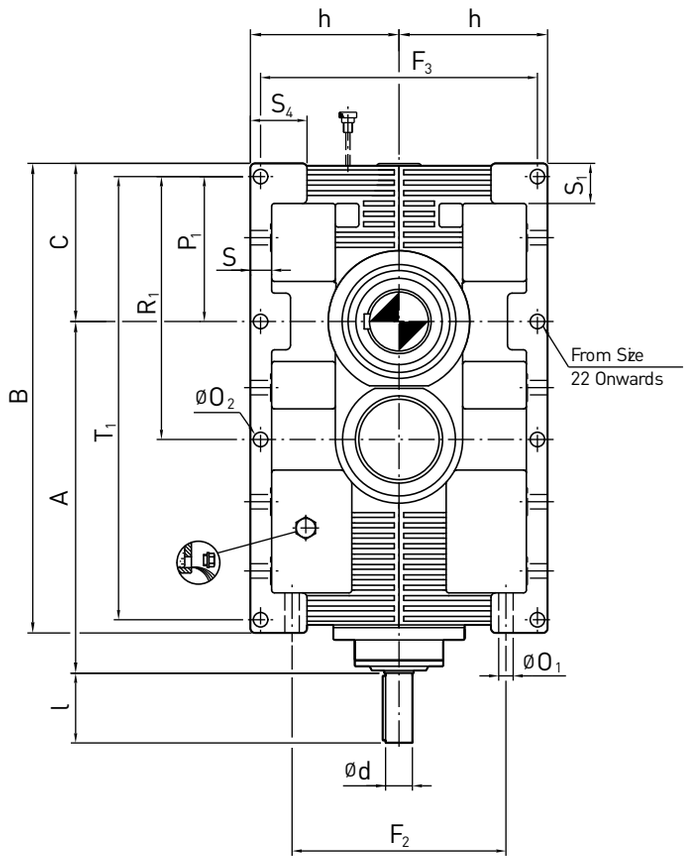
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

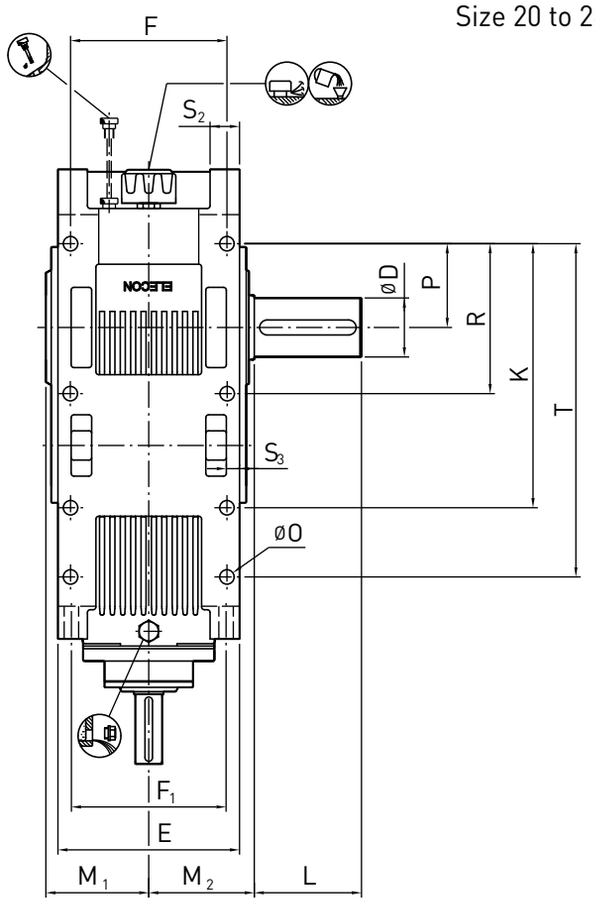
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Bevel Helical Gear Unit — Under Driven

Type - B2U

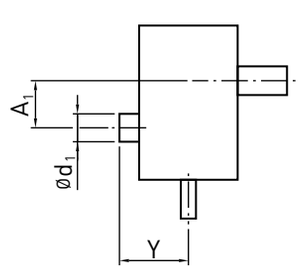
Double Stage
Size 20 to 26





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5-12.5 / i = 5.6-14 / i = 6.3-16 d	Input Shaft i = 5-12.5 / i = 5.6-14 / i = 6.3-16 l	Input Shaft i = 14-18 / i = 16-20 / i = 18-22.4 d	Input Shaft i = 14-18 / i = 16-20 / i = 18-22.4 l	Output Shaft D	Output Shaft L	Output Shaft M_1	Output Shaft M_2	Backstop A_1	Backstop d_1 [1]	Backstop Y [1]	Average Weight [kg]	Oil Quantity [Litres]
B2..20	58	135	52	135	100	200	176	200	225	210	305	595	-
B2..21	65	155	65	155	110	200	210	220	250	245	390	795	-
B2..22	70	155	70	155	120	210	220	230	280	290	390	1080	-
B2..23	85	180	80	180	140	250	234	260	315	290	390	1455	-
B2..24	90	180	90	180	160	290	283	295	355	310	470	1960	-
B2..25	100	220	100	220	170	300	293	305	400	310	470	2650	-
B2..26	110	220	110	220	190	350	306	345	450	400	470	3570	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	K	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
B2..20	720	893	303	314	270	270	400	500	280		23	23	23	165	276	290	501	36	78	45	24	105	635	839
B2..21	790	995	335	385	310	310	440	570	315		27	27	27	180	305	315	555	45	85	65	28	120	705	935
B2..22	875	1095	370	400	340	340	520	640	355		27	27	27	200	339	355	619	45	90	60	28	120	785	1033
B2..23	975	1250	425	450	380	380	570	720	400		33	33	33	220	386	405	701	55	110	70	35	150	875	1173
B2..24	1085	1365	465	515	410	410	670	800	450		33	33	33	245	426	450	781	55	110	87.5	35	150	975	1287
B2..25	1215	1505	510	535	460	460	770	900	500		33	33	33	280	474	510	874	55	110	80	35	150	1105	1432
B2..26	1365	1710	580	600	510	510	850	1010	560	940	39	39	39	315	532	575	982	65	130	100	45	175	1245	1614

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

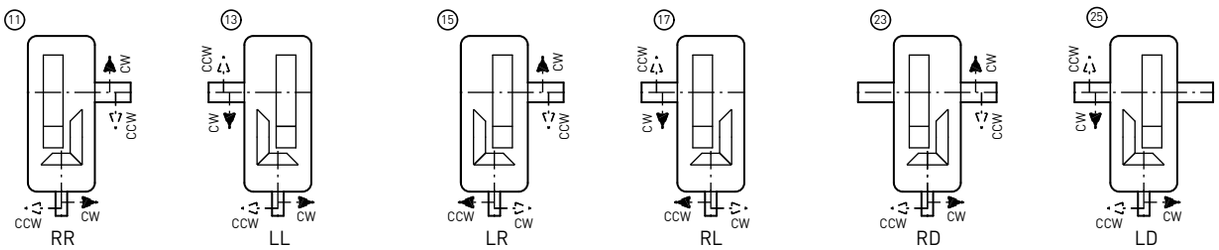
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

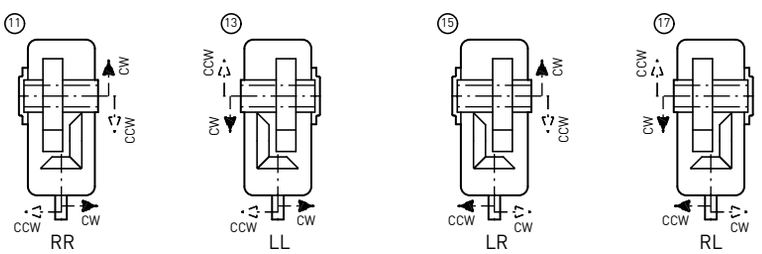
Type - **B2**

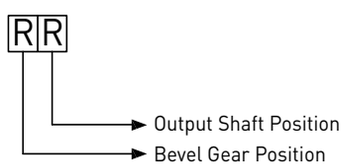
Double Stage

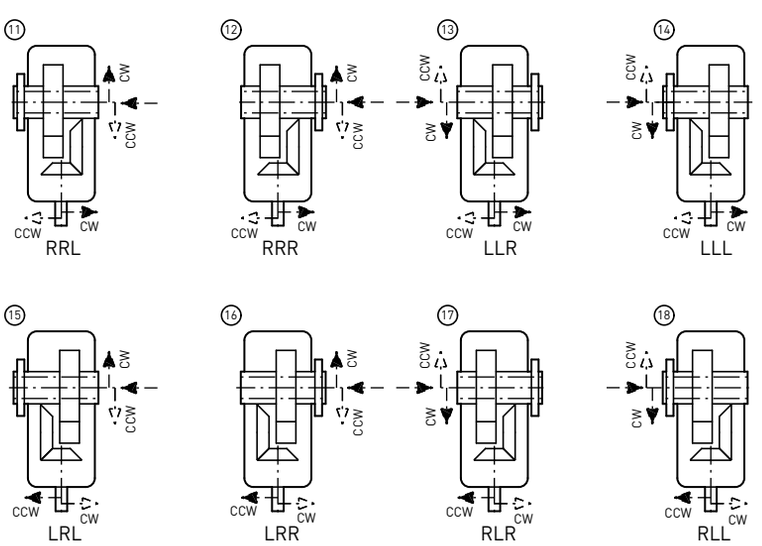
Shaft Arrangement

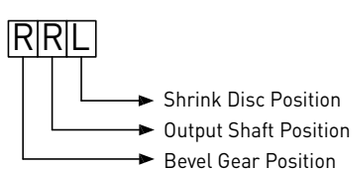
Bevel Helical Gear Unit





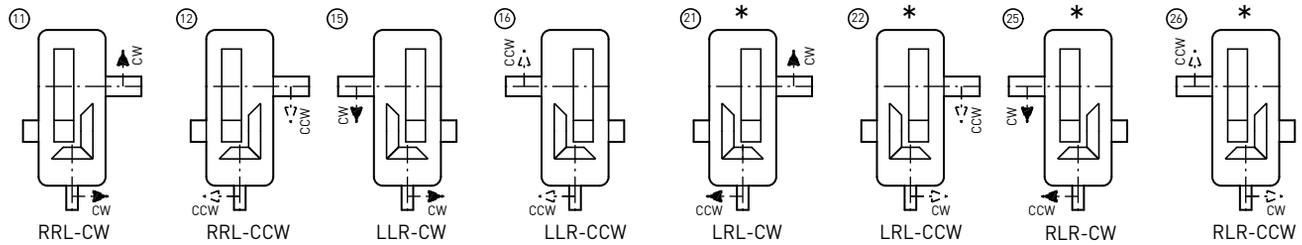


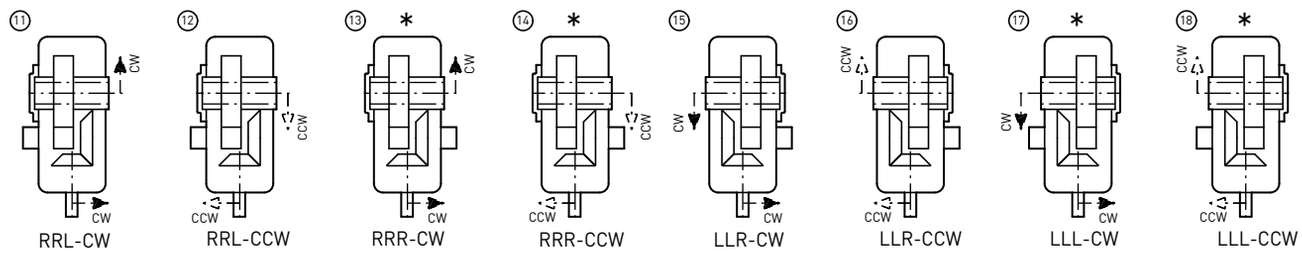


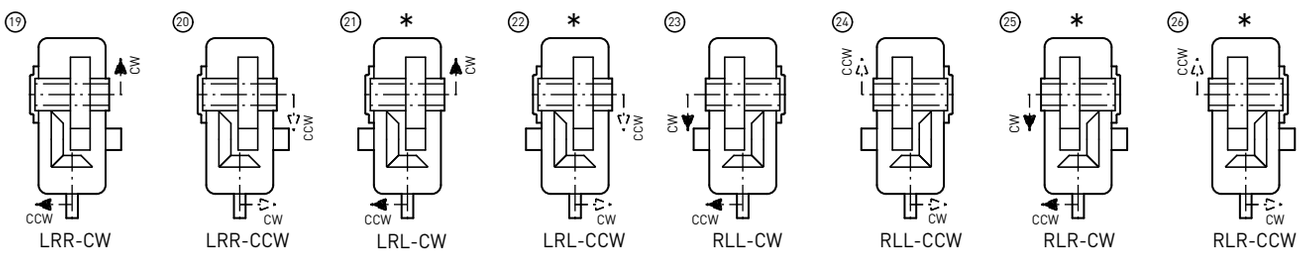


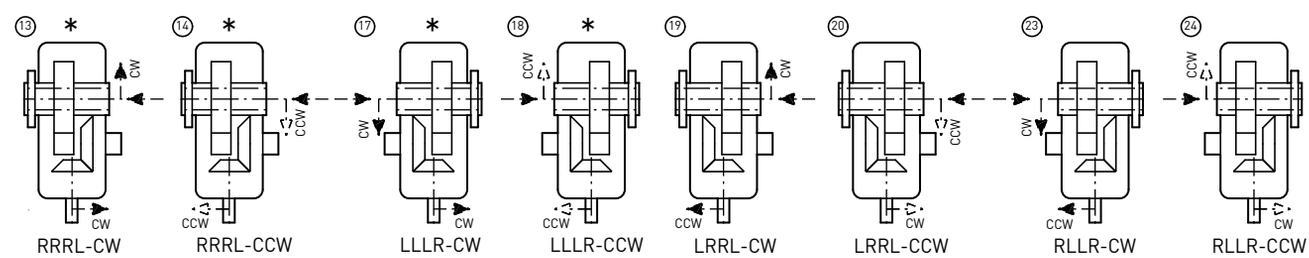
Bevel Helical Gear Unit Shaft Arrangement - Hold Back Type - **B2**

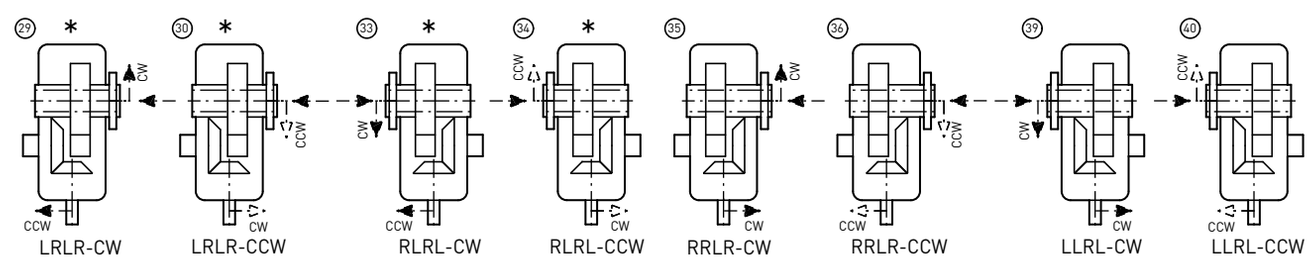
Double Stage

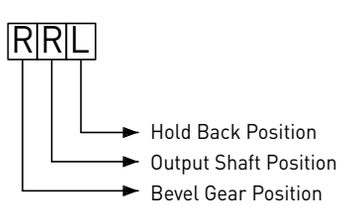


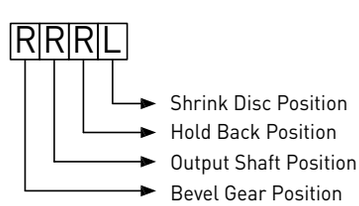










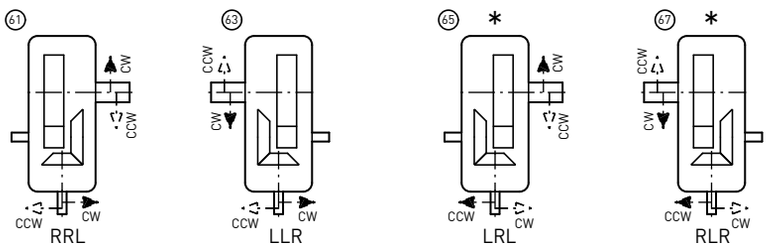


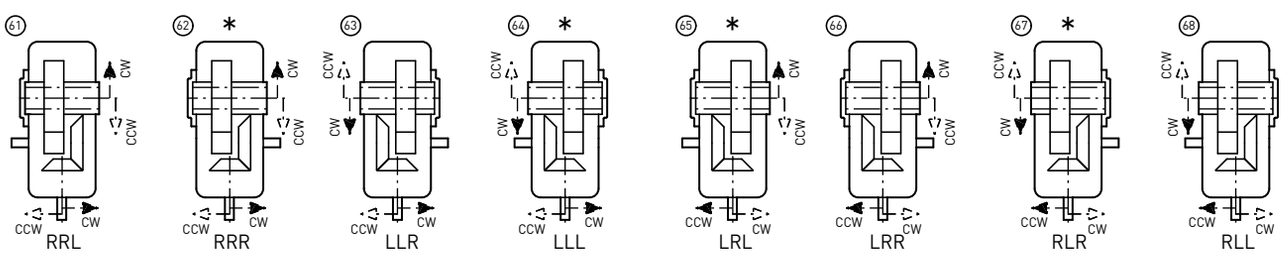
Type - **B2**

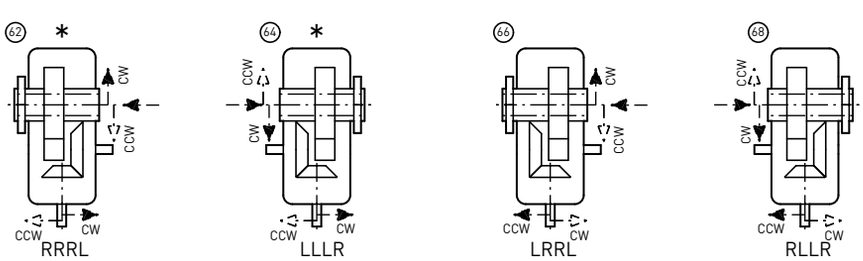
Double Stage

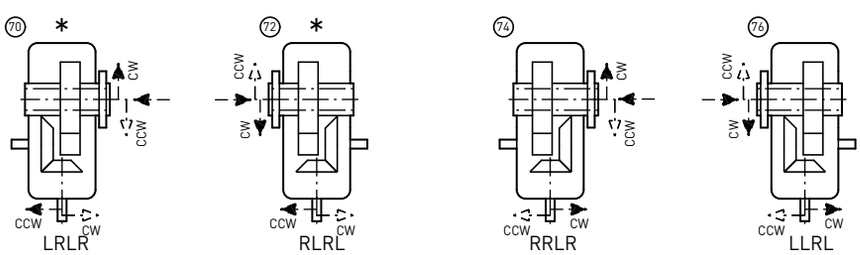
Shaft Arrangement - Int Ext

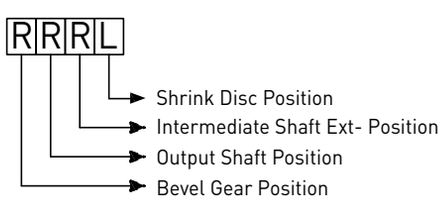
Bevel Helical Gear Unit





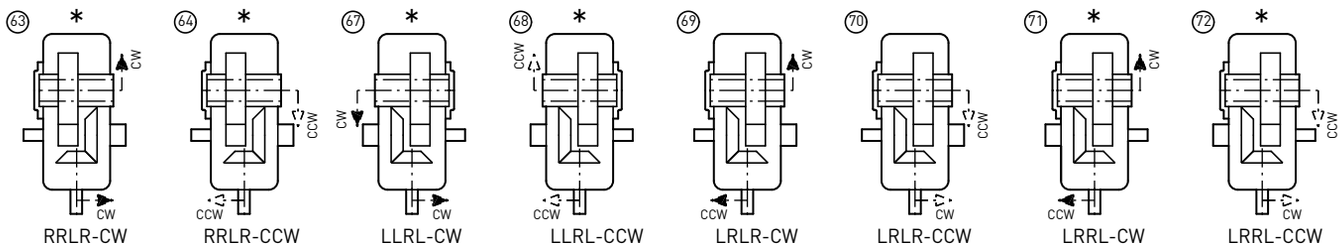




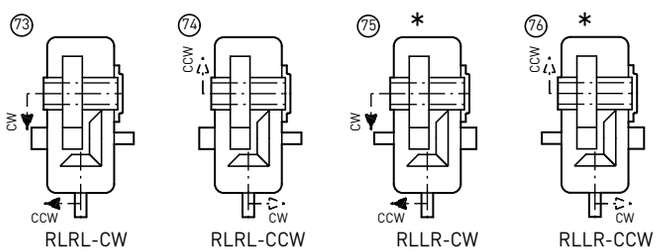


Bevel Helical Gear Unit Shaft Arrangement - Int Ext & Hold Back Type - **B2**

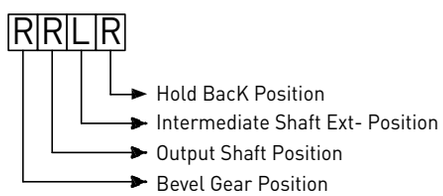
Double Stage



RRLR-CW RRLR-CCW LLRL-CW LLRL-CCW LRLR-CW LRLR-CCW LRRL-CW LRRL-CCW



RLRL-CW RLRL-CCW RLLR-CW RLLR-CCW

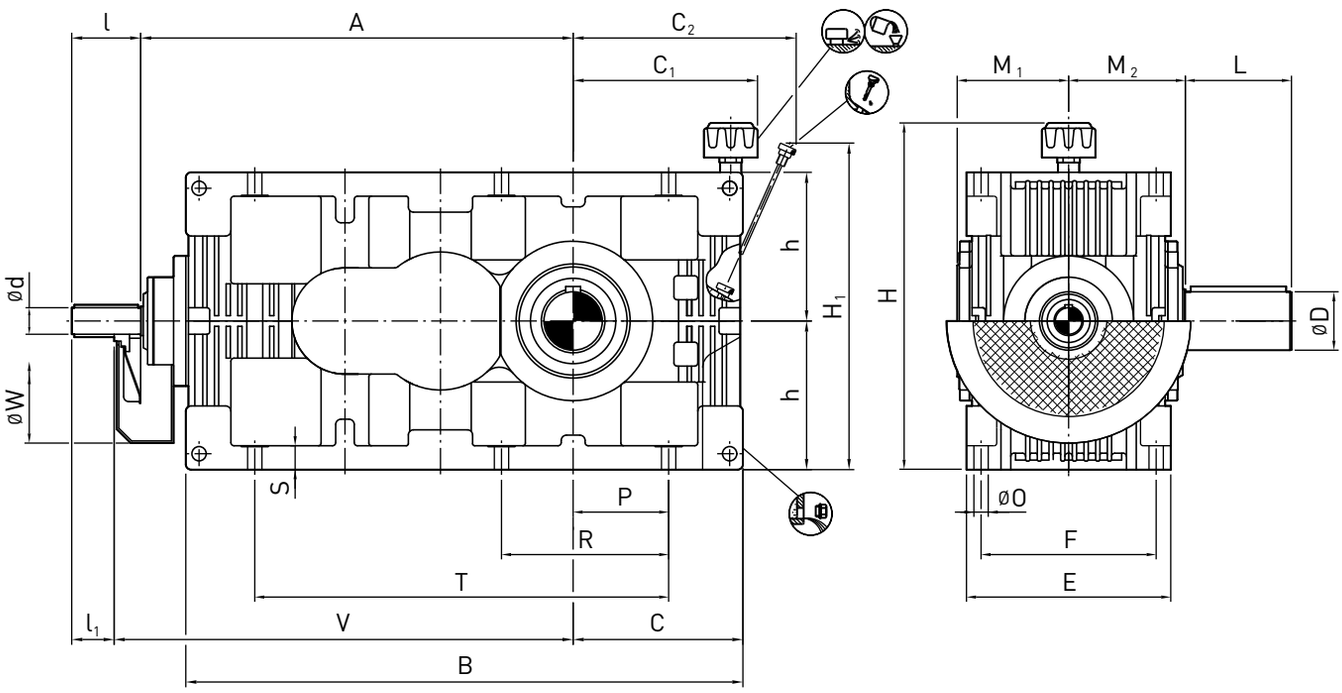


Type - B3H

Horizontal Mounting

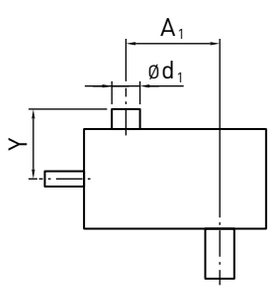
Bevel Helical Gear Unit

Triple Stage
Size 14 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 20-50 / i = 22.4-63 / i = 25-71			Input Shaft i = 56-71 / i = 71-90 / i = 80-100					Output Shaft				Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	V	W	D	L	M_1	M_2	A_1	d_1 [1]	Y [1]		
B3..14	19	90	40	19	90	40	435	240	48	95	106	125	190	90	180	105	3.5
B3..15	24	100	50	24	100	50	475	270	55	95	127	135	215	95	215	145	4.5
B3..16	24	100	50	24	100	50	525	300	60	130	133	145	240	95	215	195	6.5
B3..17	28	100	50	24	100	50	575	340	70	135	141	150	270	95	215	265	9
B3..18	32	110	60	28	100	50	640	360	80	160	158	170	305	140	265	355	13



Size	Foundation														
	A	B	C	C_1 [2]	C_2 [1]	E	F	h	H_1 [1]	H [2]	O	P	R	S	T
B3..14	385	488	162	198	194	190	150	125	278	330	14	80	140	24	345
B3..15	420	548	177	213	215	228	170	140	306	360	14	95	170	24	395
B3..16	480	615	195	228	231	233	190	160	327	400	14	110	195	24	450
B3..17	530	684	210	238	257	250	210	180	378	440	18	115	210	32	495
B3..18	595	764	236	263	281	284	230	200	404	480	18	135	240	32	565

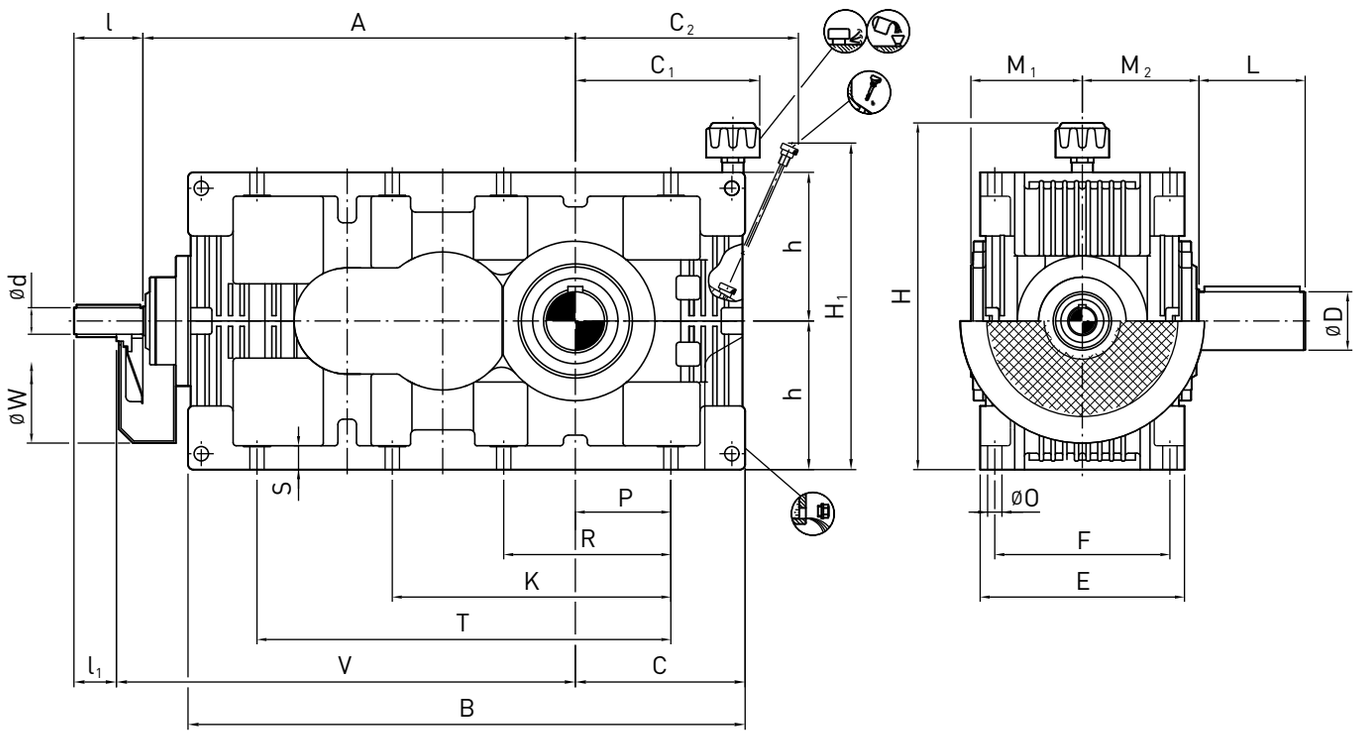
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Bevel Helical Gear Unit — Horizontal Mounting

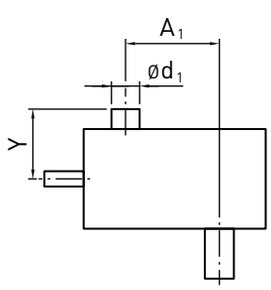
Type - B3H

Triple Stage
Size 19 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft: i = 20-50, i = 22.4-63, i = 25-71			Input Shaft: i = 56-71, i = 71-90, i = 80-100					Output Shaft				Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	V	W	D	L	M_1	M_2	A_1	d_1 [1]	Y [1]		
B3..19	38	110	60	32	110	60	705	360	90	165	171	180	340	150	265	480	18
B3..20	42	130	80	38	110	60	790	400	100	200	176	200	385	150	265	645	26
B3..21	48	130	80	42	130	80	885	460	110	200	210	220	430	190	340	870	33
B3..22	52	130	80	48	130	80	970	530	120	210	220	230	480	190	340	1170	46
B3..23	58	135	85	52	130	80	1095	550	140	250	234	260	540	190	340	1590	65
B3..24	65	155	105	65	155	105	1215	600	160	290	283	295	605	245	440	2145	90
B3..25	70	155	105	70	155	105	1350	650	170	300	293	305	680	245	440	2895	125
B3..26	85	180	130	80	180	130	1500	700	190	350	306	345	765	245	440	3885	180



Size	Foundation															
	A	B	C	C_1 [2]	C_2 [1]	E	F	h	H_1 [1]	H [2]	K	O	P	R	S	T
B3..19	660	850	265	283	315	303	250	225	455	530		23	145	255	36	615
B3..20	745	945	288	304	345	314	270	250	496	580		23	165	290	36	705
B3..21	835	1050	320	359	394	385	310	280	572	650		27	180	315	45	780
B3..22	920	1170	355	390	429	400	340	315	635	720		27	200	355	45	880
B3..23	1035	1335	405	422	481	450	380	355	705	800	655	33	220	405	55	985
B3..24	1145	1465	435	452	541	515	410	400	795	890	740	33	245	450	55	1110
B3..25	1275	1605	475	493	591	535	460	450	865	990	840	33	280	510	55	1245
B3..26	1425	1820	540	553	659	600	510	500	954	1090	940	39	315	575	65	1400

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

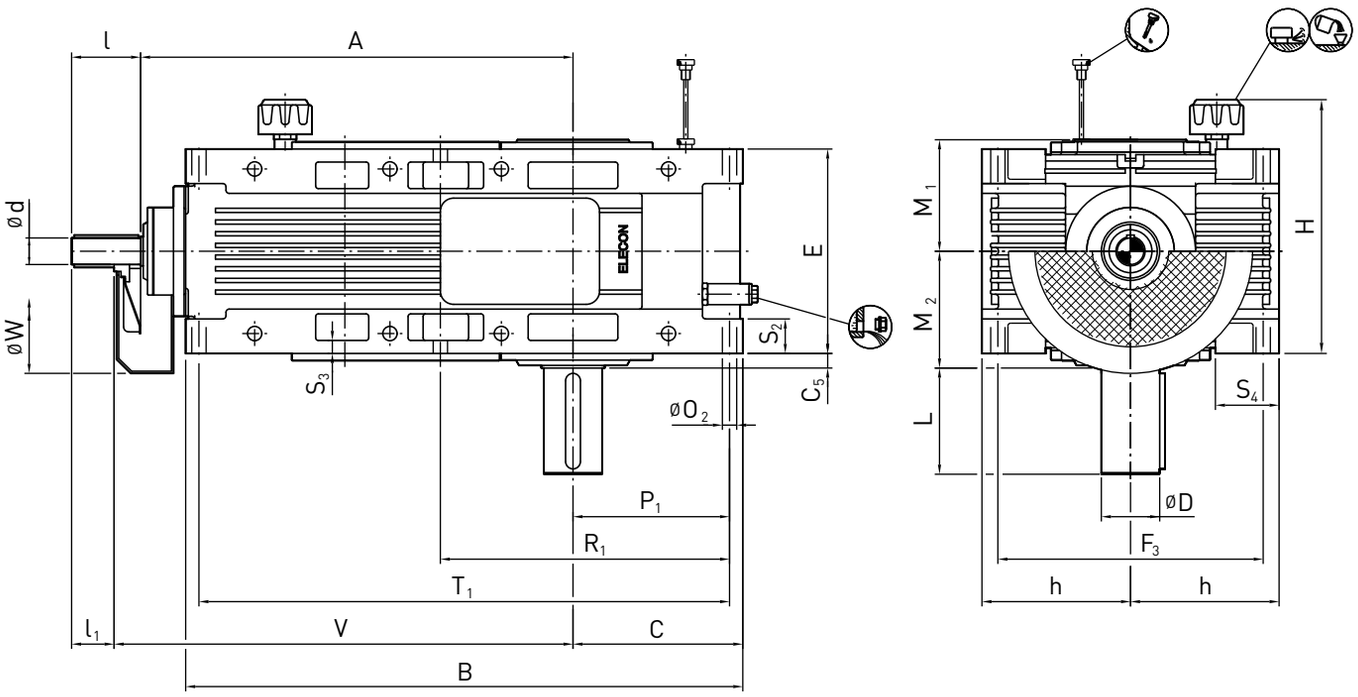
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Type - B3V

Vertical Mounting

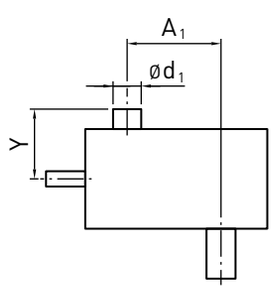
Bevel Helical Gear Unit

Triple Stage
Size 14 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 20-50 / i = 22.4-63 / i = 25-71			Input Shaft i = 56-71 / i = 71-90 / i = 80-100					Output Shaft				Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	V	W	D	L	M_1	M_2	A_1	d_1 [1]	Y [1]		
B3..14	19	90	40	19	90	40	435	240	48	95	106	125	190	90	180	105	-
B3..15	24	100	50	24	100	50	475	270	55	95	127	135	215	95	215	145	-
B3..16	24	100	50	24	100	50	525	300	60	130	133	145	240	95	215	195	-
B3..17	28	100	50	24	100	50	575	340	70	135	141	150	270	95	215	265	-
B3..18	32	110	60	28	100	50	640	360	80	160	158	170	305	140	265	355	-



Size	Foundation														
	A	B	C	C_5	E	F_3	h	H [2]	O_2	P_1	R_1	S_2	S_3	S_4	T_1
B3..14	385	488	162	30	190	200	125	270	14	146	292	36	-	70	456
B3..15	420	548	177	21	228	230	140	308	14	160	285	45	15	70	515
B3..16	480	615	195	28.5	233	270	160	313	14	176	316	38	15	70	578
B3..17	530	684	210	25	250	310	180	330	18	190	350	40	20	95	645
B3..18	595	764	236	28	284	350	200	364	18	215	395	45	20	90	722

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

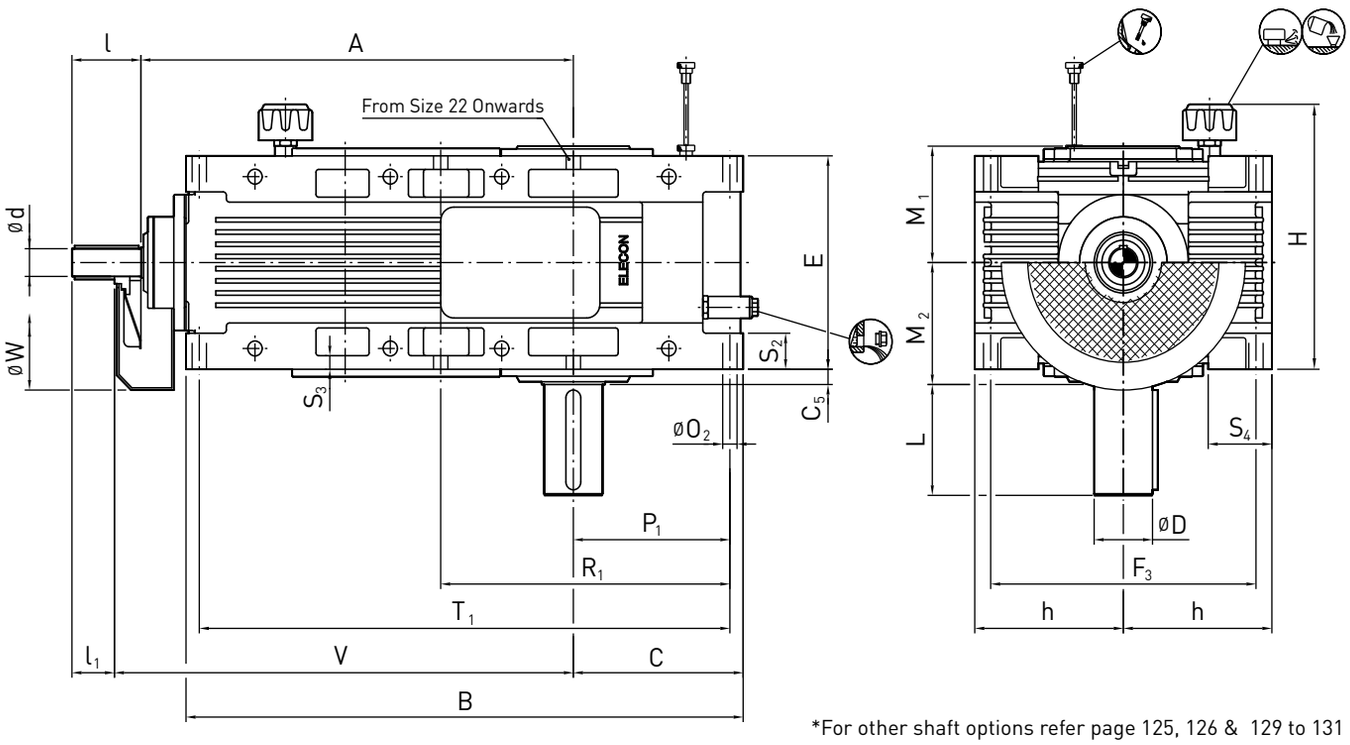
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Bevel Helical Gear Unit

Vertical Mounting

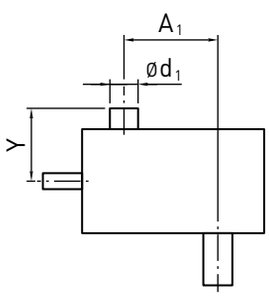
Type - **B3V**

Triple Stage
Size 19 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 20-50 / i = 22.4-63 / i = 25-71			Input Shaft i = 56-71 / i = 71-90 / i = 80-100					Output Shaft				Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	V	W	D	L	M_1	M_2	A_1	d_1 [1]	Y [1]		
B3..19	38	110	60	32	110	60	705	360	90	165	171	180	340	150	265	480	-
B3..20	42	130	80	38	110	60	790	400	100	200	176	200	385	150	265	645	-
B3..21	48	130	80	42	130	80	885	460	110	200	210	220	430	190	340	870	-
B3..22	52	130	80	48	130	80	970	530	120	210	220	230	480	190	340	1170	-
B3..23	58	135	85	52	130	80	1095	550	140	250	234	260	540	190	340	1590	-
B3..24	65	155	105	65	155	105	1215	600	160	290	283	295	605	245	440	2145	-
B3..25	70	155	105	70	155	105	1350	650	170	300	293	305	680	245	440	2895	-
B3..26	85	180	130	80	180	130	1500	700	190	350	306	345	765	245	440	3885	-



Size	Foundation														
	A	B	C	C_5	E	F_3	h	H [2]	O_2	P_1	R_1	S_2	S_3	S_4	T_1
B3..19	660	850	265	28.5	303	400	225	383	23	240	440	48.5	22	105	800
B3..20	745	945	288	43	314	440	250	394	23	262	487	45	24	105	893
B3..21	835	1050	320	27.5	385	500	280	475	27	295	545	65	28	120	1000
B3..22	920	1170	355	30	400	560	315	490	27	325	605	60	28	120	1110
B3..23	1035	1335	405	35	450	630	355	540	33	370	685	70	35	150	1265
B3..24	1145	1465	435	37.5	515	700	400	605	33	398	753	87.5	35	150	1391
B3..25	1275	1605	475	37.5	535	800	450	625	33	436	836	80	35	150	1528
B3..26	1425	1820	540	45	600	890	500	700	39	495	945	100	45	175	1730

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

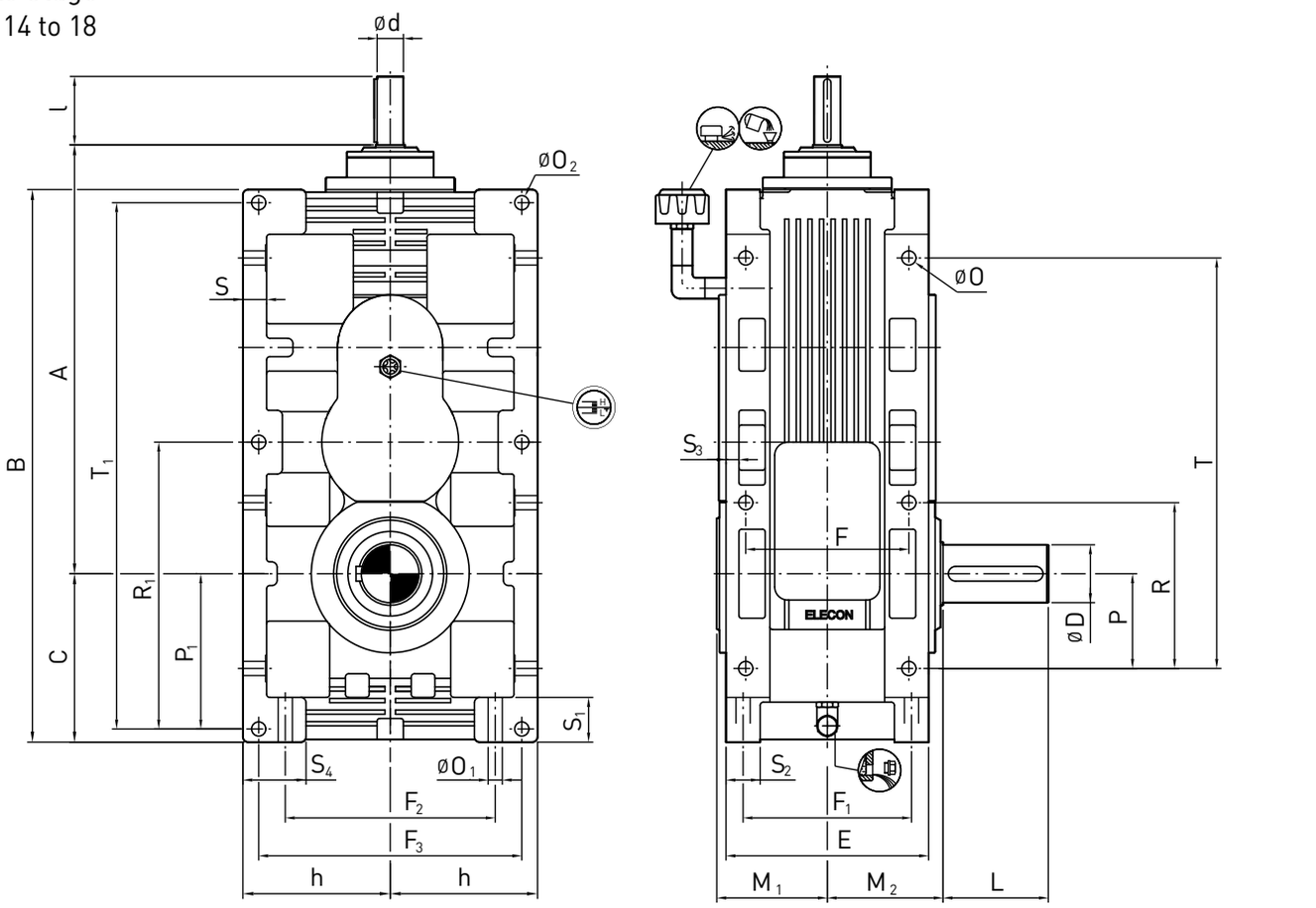
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Type - B30

Over Driven

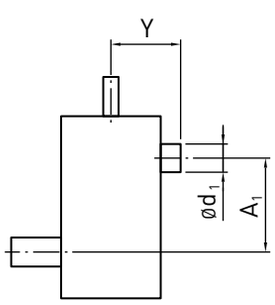
Bevel Helical Gear Unit

Triple Stage
Size 14 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 20-50 / i = 22.4-63 / i = 25-71 d	Input Shaft i = 20-50 / i = 22.4-63 / i = 25-71 l	Input Shaft i = 56-71 / i = 71-90 / i = 80-100 d	Input Shaft i = 56-71 / i = 71-90 / i = 80-100 l	Output Shaft D	Output Shaft L	Output Shaft M_1	Output Shaft M_2	Backstop A_1	Backstop d_1 1)	Backstop Y 1)	Average Weight [kg]	Oil Quantity [Litres]
B3..14	19	90	19	90	48	95	106	125	190	90	180	105	-
B3..15	24	100	24	100	55	95	127	135	215	95	215	145	-
B3..16	24	100	24	100	60	130	133	145	240	95	215	195	-
B3..17	28	100	24	100	70	135	141	150	270	95	215	265	-
B3..18	32	110	28	100	80	160	158	170	305	140	265	355	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
B3..14	385	488	162	190	150	150	140	200	125	14	14	14	80	146	140	292	24	52	36	15	70	345	456
B3..15	420	548	177	228	170	170	170	230	140	14	14	14	95	160	170	285	24	52	45	15	70	395	515
B3..16	480	615	195	233	190	190	210	270	160	14	14	14	110	176	195	316	24	55	38	15	70	450	578
B3..17	530	684	210	250	210	210	220	310	180	18	18	18	115	190	210	350	32	60	40	20	95	495	645
B3..18	595	764	236	284	230	230	260	350	200	18	18	18	135	215	240	395	32	66	45	20	90	565	722

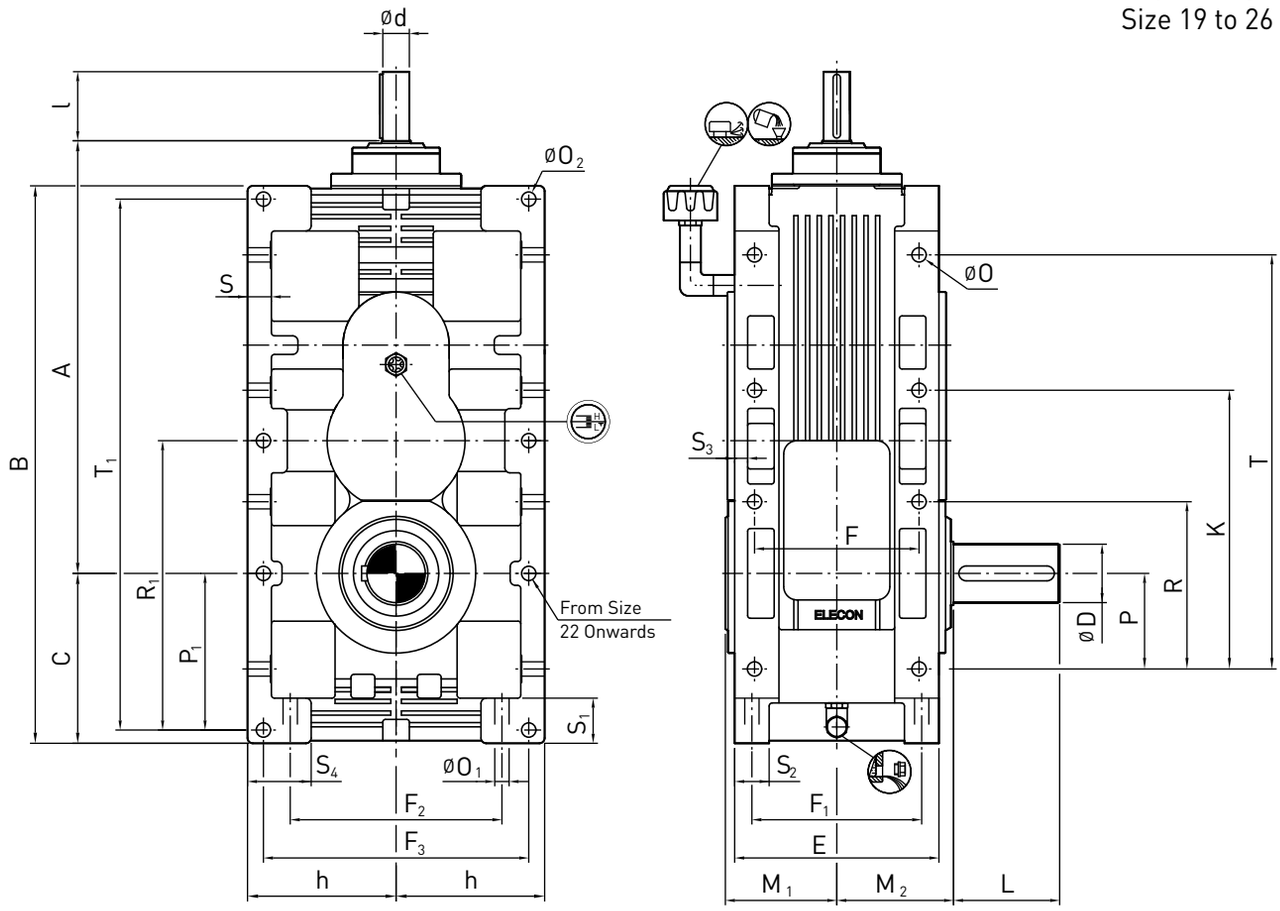
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Bevel Helical Gear Unit — Over Driven

Type - B30

Triple Stage
Size 19 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 22.4-63 i = 25-71 d	l	Input Shaft i = 71-90 i = 80-100 d	l	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
B3..19	38	110	32	110	90	165	171	180	340	150	265	480	-
B3..20	42	130	38	110	100	200	176	200	385	150	265	645	-
B3..21	48	130	42	130	110	200	210	220	430	190	340	870	-
B3..22	52	130	48	130	120	210	220	230	480	190	340	1170	-
B3..23	58	135	52	130	140	250	234	260	540	190	340	1590	-
B3..24	65	155	65	155	160	290	283	295	605	245	440	2145	-
B3..25	70	155	70	155	170	300	293	305	680	245	440	2895	-
B3..26	85	180	80	180	190	350	306	345	765	245	440	3885	-

Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	K	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
B3..19	660	850	265	303	250	250	290	400	225		23	23	23	145	240	255	440	36	75	48.5	22	105	615	800
B3..20	745	945	288	314	270	270	340	440	250		23	23	23	165	262	290	487	36	78	45	24	105	705	893
B3..21	835	1050	320	385	310	310	370	500	280		27	27	27	180	295	315	545	45	85	65	28	120	780	1000
B3..22	920	1170	355	400	340	340	440	560	315		27	27	27	200	325	355	605	45	90	60	28	120	880	1110
B3..23	1035	1335	405	450	380	380	480	630	355	655	33	33	33	220	370	405	685	55	110	70	35	150	985	1265
B3..24	1145	1465	435	515	410	410	570	700	400	740	33	33	33	245	398	450	753	55	110	87.5	35	150	1110	1391
B3..25	1275	1605	475	535	460	460	670	800	450	840	33	33	33	280	436	510	836	55	110	80	35	150	1245	1528
B3..26	1425	1820	540	600	510	510	730	890	500	940	39	39	39	315	495	575	945	65	130	100	45	175	1400	1730

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

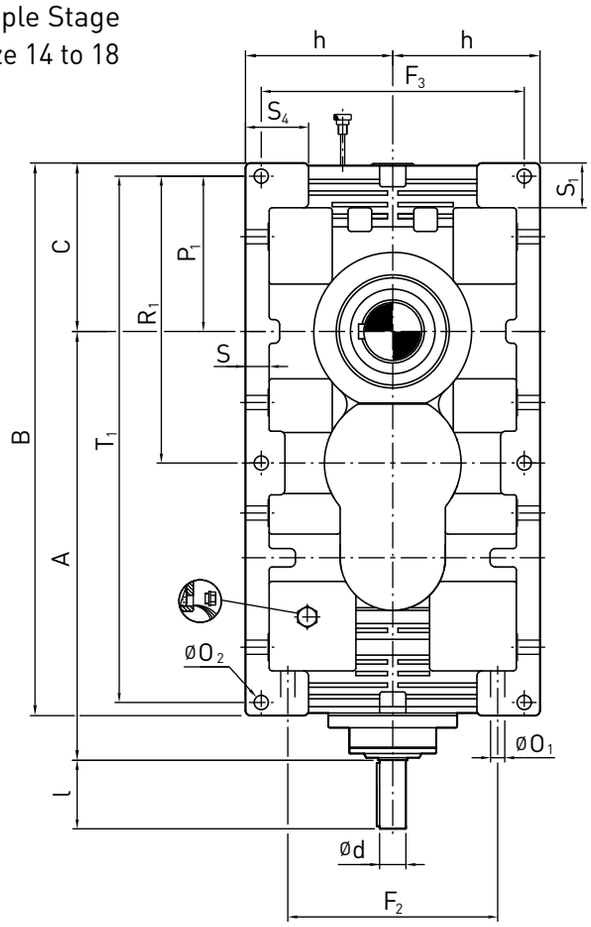
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

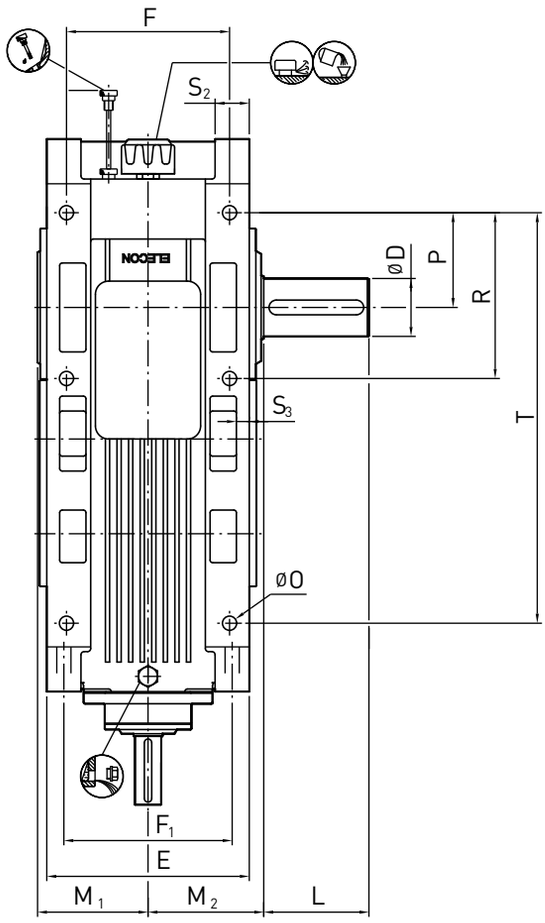
Type - B3U

Under Driven

Bevel Helical Gear Unit

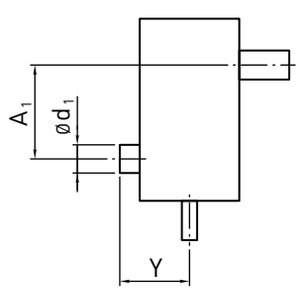
Triple Stage
Size 14 to 18





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 20-50 / i = 22.4-63 / i = 25-71 d	Input Shaft i = 20-50 / i = 22.4-63 / i = 25-71 l	Input Shaft i = 56-71 / i = 71-90 / i = 80-100 d	Input Shaft i = 56-71 / i = 71-90 / i = 80-100 l	Output Shaft D	Output Shaft L	Output Shaft M_1	Output Shaft M_2	Backstop A_1	Backstop d_1 1)	Backstop Y 1)	Average Weight [kg]	Oil Quantity [Litres]
B3..14	19	90	19	90	48	95	106	125	190	90	180	105	-
B3..15	24	100	24	100	55	95	127	135	215	95	215	145	-
B3..16	24	100	24	100	60	130	133	145	240	95	215	195	-
B3..17	28	100	24	100	70	135	141	150	270	95	215	265	-
B3..18	32	110	28	100	80	160	158	170	305	140	265	355	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
B3..14	385	488	162	190	150	150	140	200	125	14	14	14	80	146	140	292	24	52	36	15	70	345	456
B3..15	420	548	177	228	170	170	170	230	140	14	14	14	95	160	170	285	24	52	45	15	70	395	515
B3..16	480	615	195	233	190	190	210	270	160	14	14	14	110	176	195	316	24	55	38	15	70	450	578
B3..17	530	684	210	250	210	210	220	310	180	18	18	18	115	190	210	350	32	60	40	20	95	495	645
B3..18	595	764	236	284	230	230	260	350	200	18	18	18	135	215	240	395	32	66	45	20	90	565	722

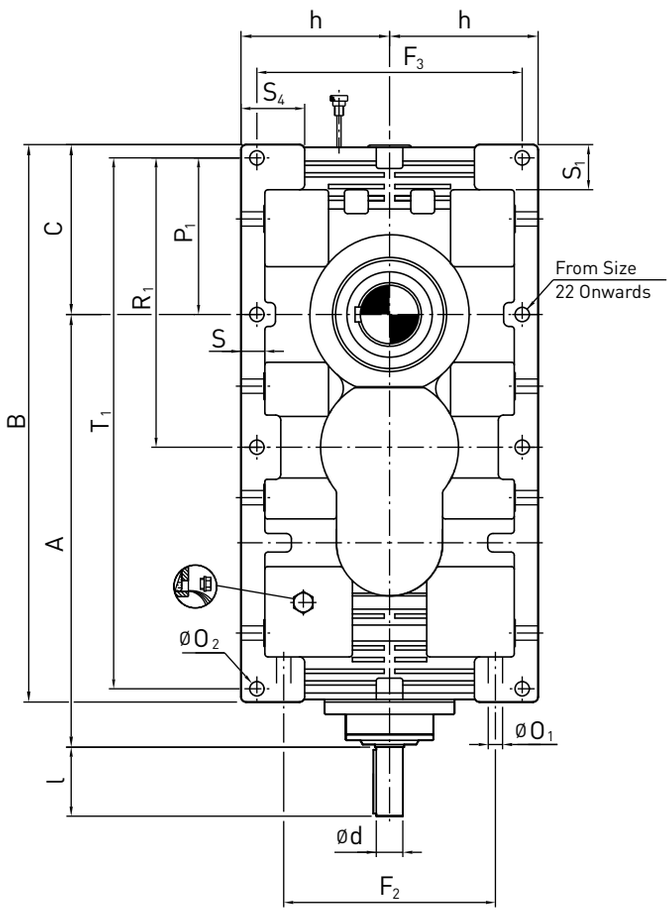
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

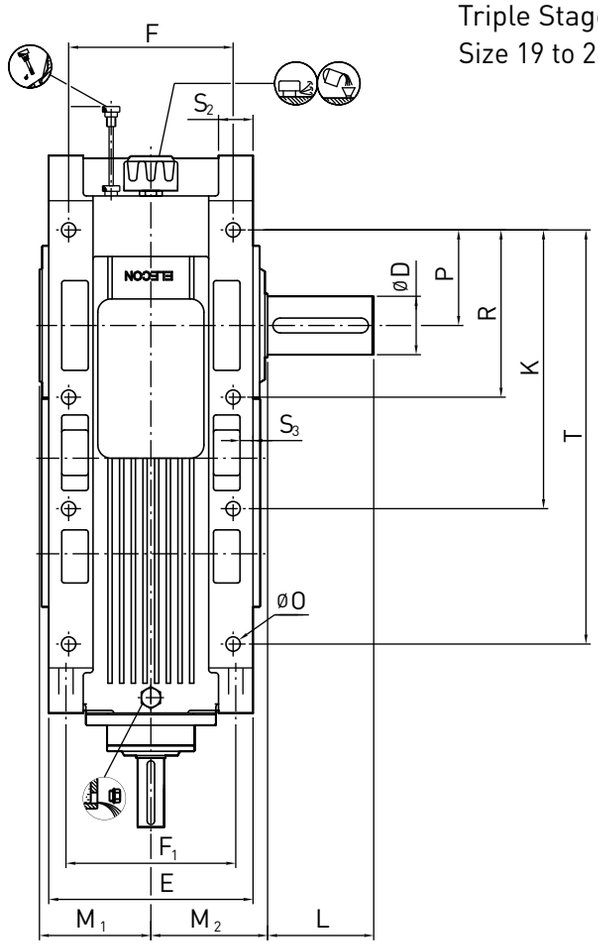
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Bevel Helical Gear Unit — Under Driven

Type - B3U

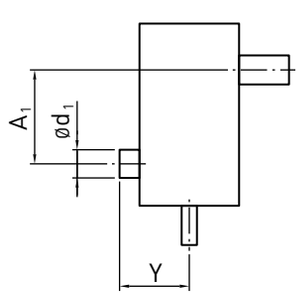
Triple Stage
Size 19 to 26





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 22.4-63 i = 25-71 d	l	Input Shaft i = 71-90 i = 80-100 d	l	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
B3..19	38	110	32	110	90	165	171	180	340	150	265	480	-
B3..20	42	130	38	110	100	200	176	200	385	150	265	645	-
B3..21	48	130	42	130	110	200	210	220	430	190	340	870	-
B3..22	52	130	48	130	120	210	220	230	480	190	340	1170	-
B3..23	58	135	52	130	140	250	234	260	540	190	340	1590	-
B3..24	65	155	65	155	160	290	283	295	605	245	440	2145	-
B3..25	70	155	70	155	170	300	293	305	680	245	440	2895	-
B3..26	85	180	80	180	190	350	306	345	765	245	440	3885	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	K	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
B3..19	660	850	265	303	250	250	290	400	225		23	23	23	145	240	255	440	36	75	48.5	22	105	615	800
B3..20	745	945	288	314	270	270	340	440	250		23	23	23	165	262	290	487	36	78	45	24	105	705	893
B3..21	835	1050	320	385	310	310	370	500	280		27	27	27	180	295	315	545	45	85	65	28	120	780	1000
B3..22	920	1170	355	400	340	340	440	560	315		27	27	27	200	325	355	605	45	90	60	28	120	880	1110
B3..23	1035	1335	405	450	380	380	480	630	355	655	33	33	33	220	370	405	685	55	110	70	35	150	985	1265
B3..24	1145	1465	435	515	410	410	570	700	400	740	33	33	33	245	398	450	753	55	110	87.5	35	150	1110	1391
B3..25	1275	1605	475	535	460	460	670	800	450	840	33	33	33	280	436	510	836	55	110	80	35	150	1245	1528
B3..26	1425	1820	540	600	510	510	730	890	500	940	39	39	39	315	495	575	945	65	130	100	45	175	1400	1730

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

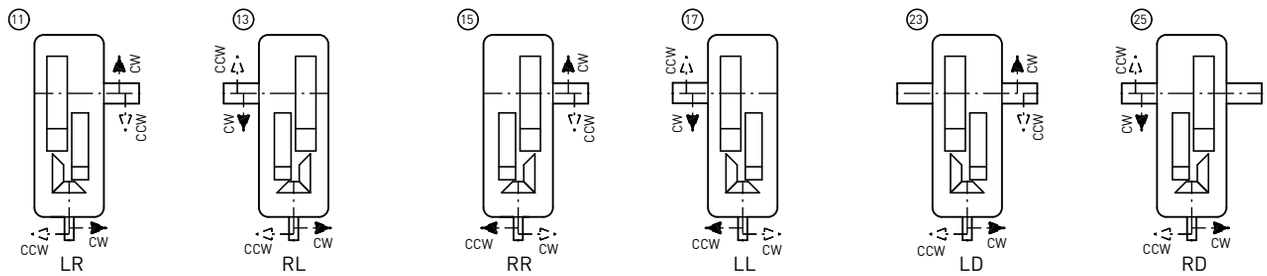
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

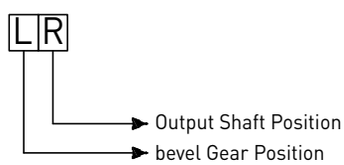
Type - **B3**

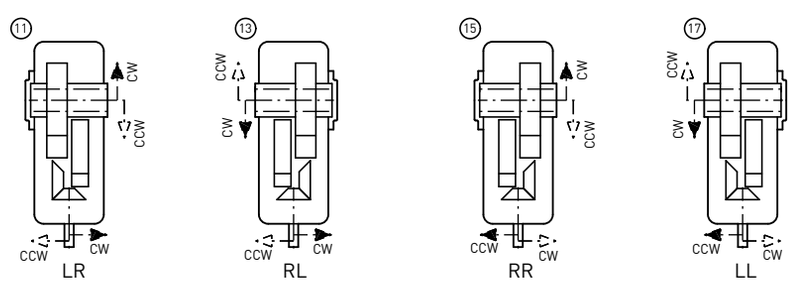
Triple Stage

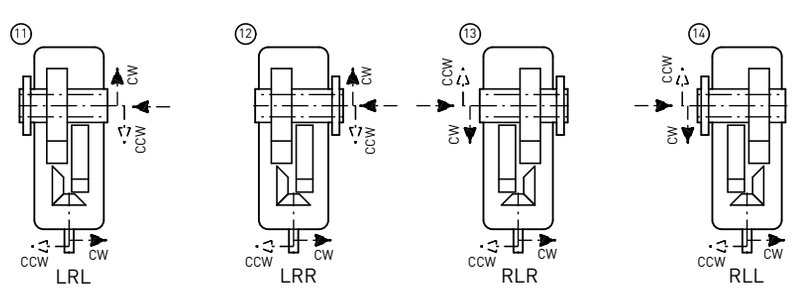
Shaft Arrangement

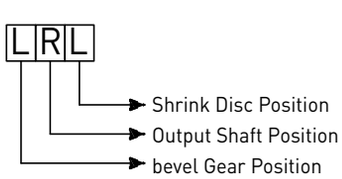
Bevel Helical Gear Unit

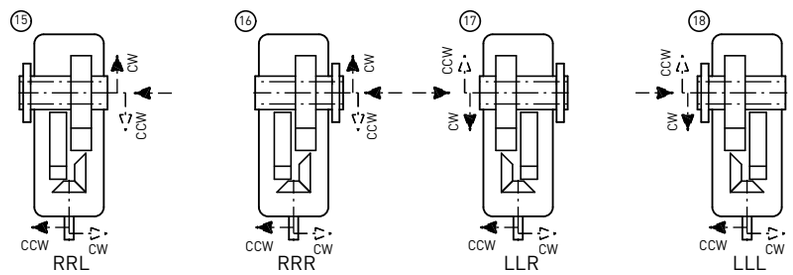










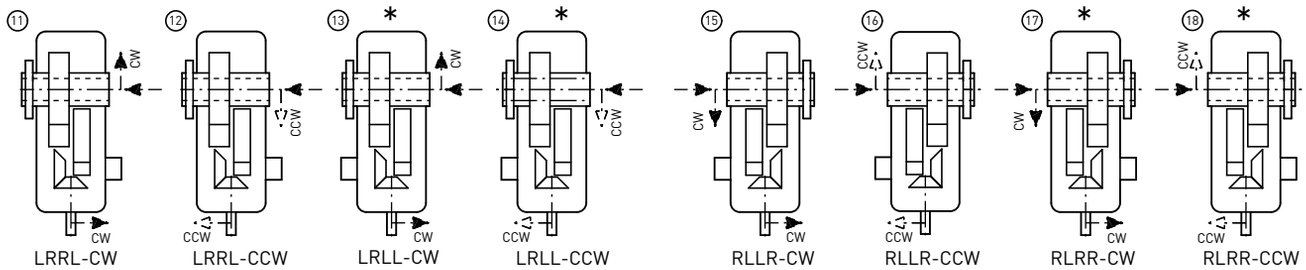


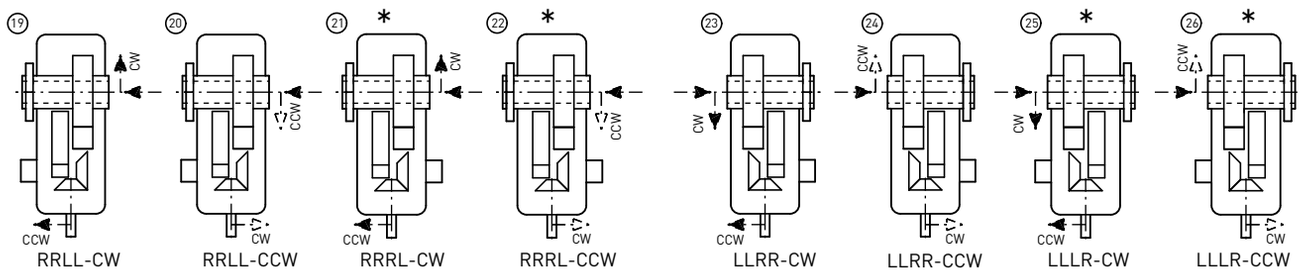
Bevel Helical Gear Unit

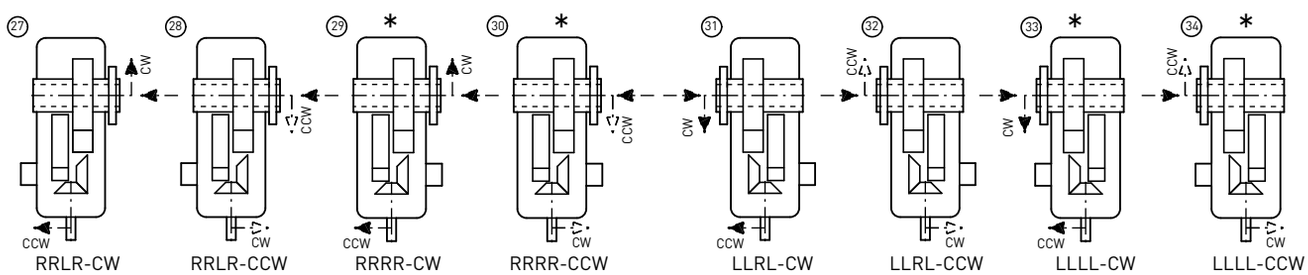
Shaft Arrangement Hold Back

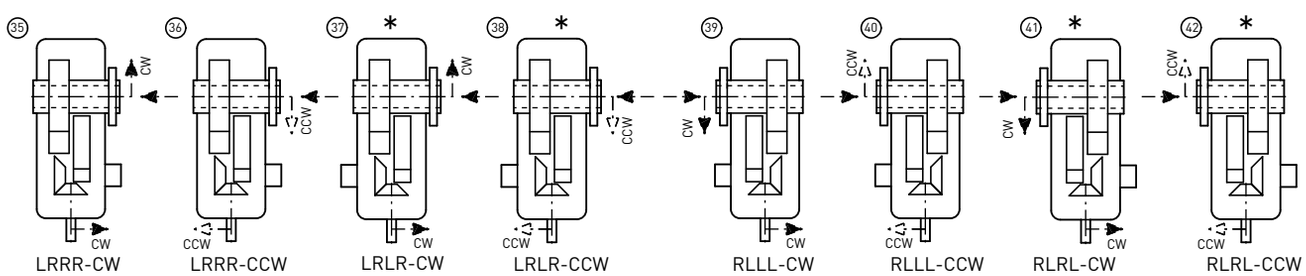
Type - **B3**

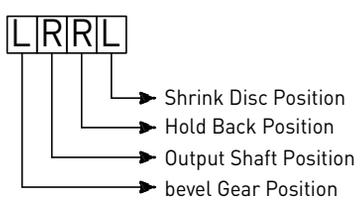
Triple Stage









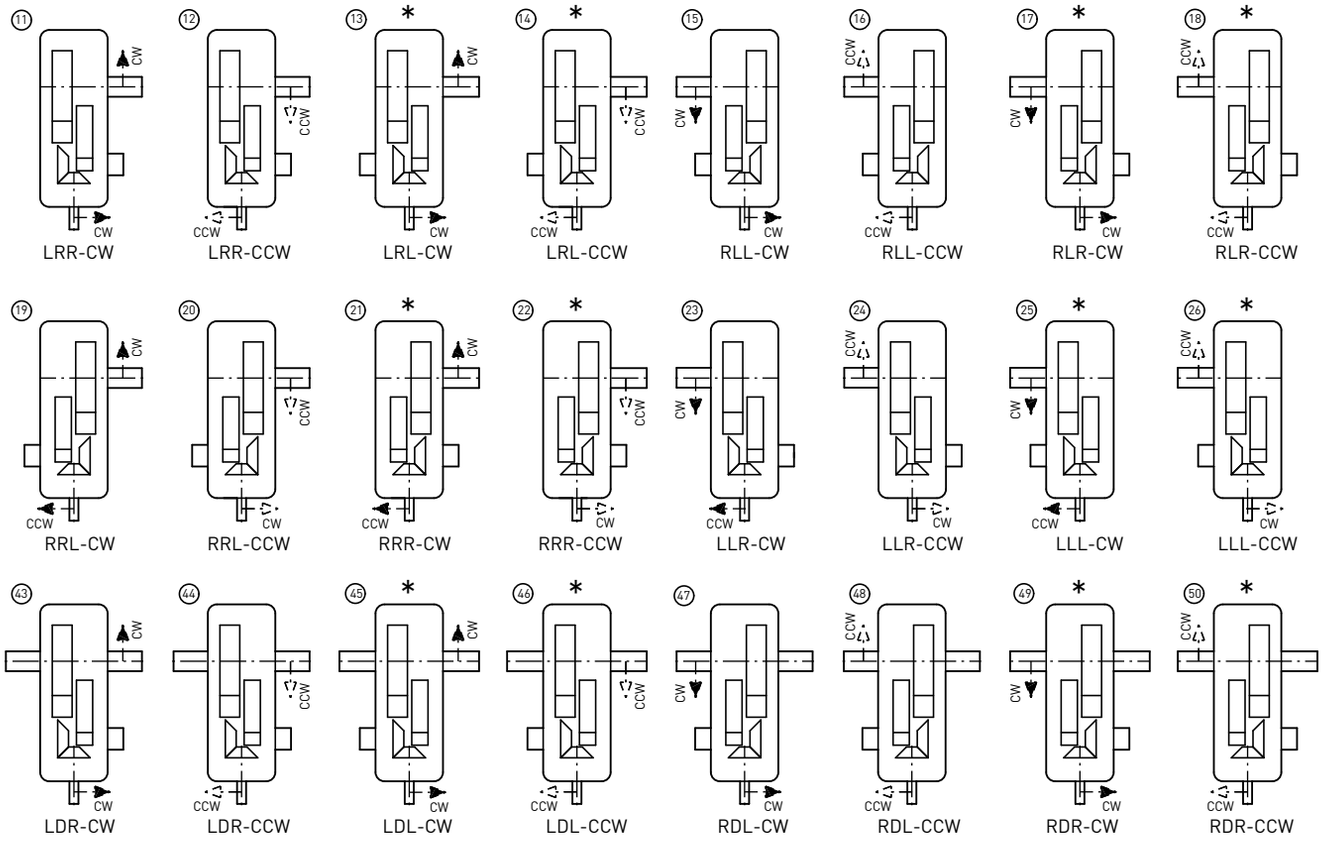


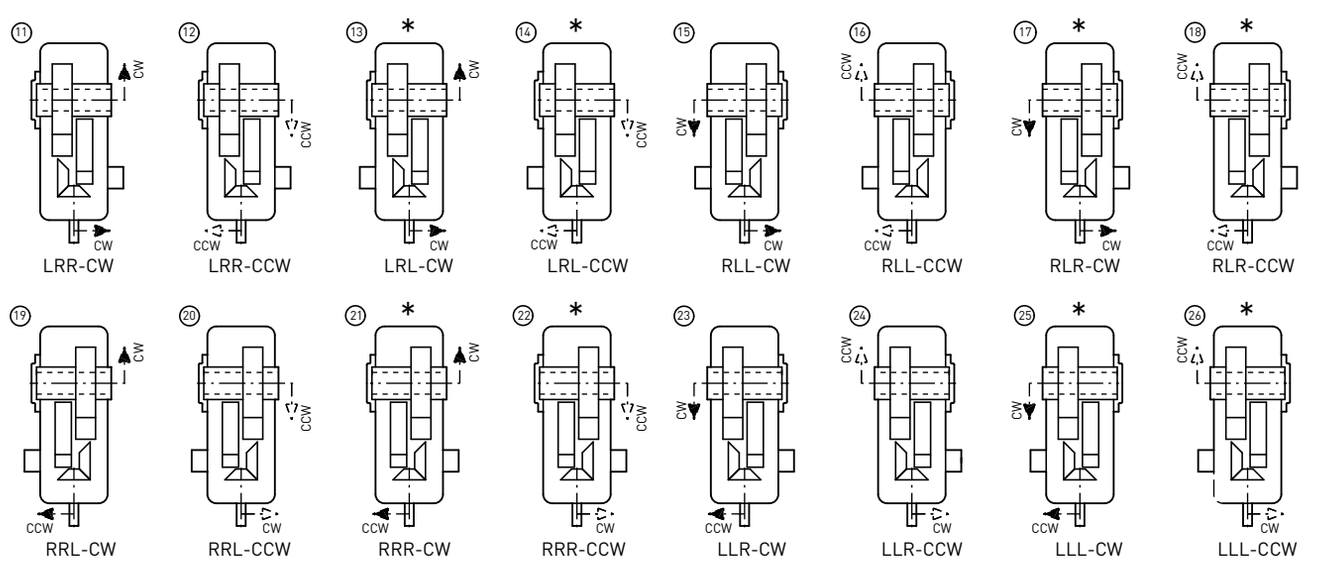
Type - **B3**

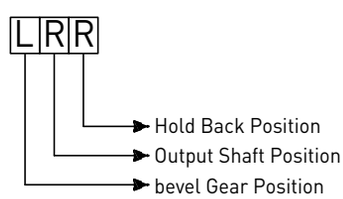
Triple Stage

Shaft Arrangement - Hold Back

Bevel Helical Gear Unit





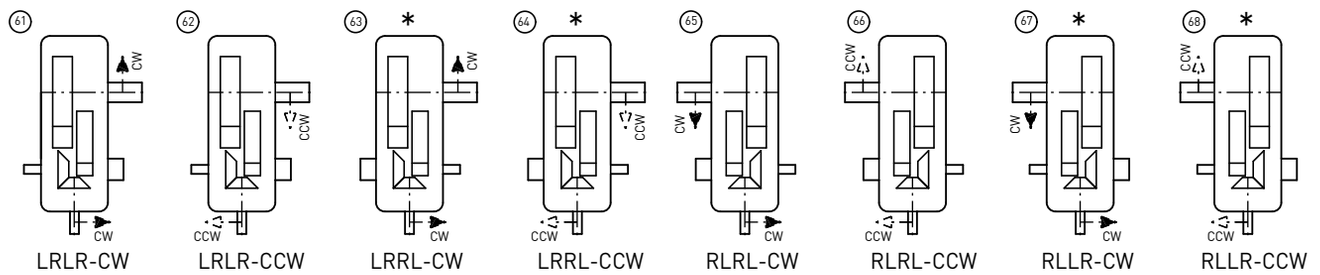


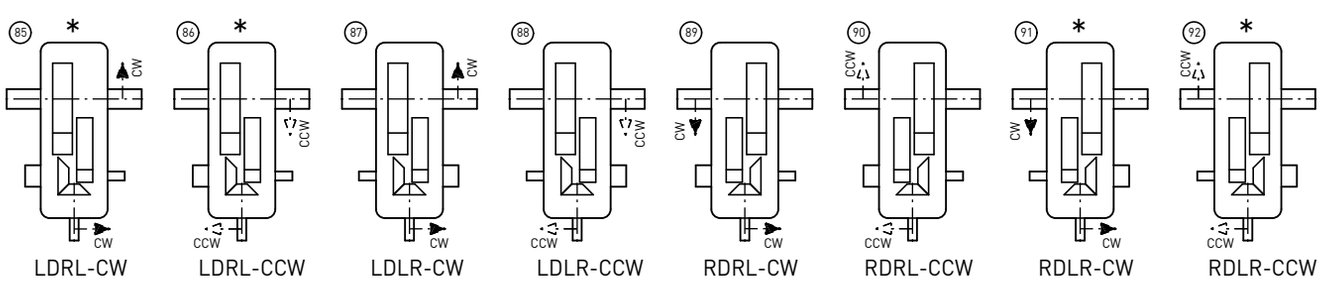
Bevel Helical Gear Unit

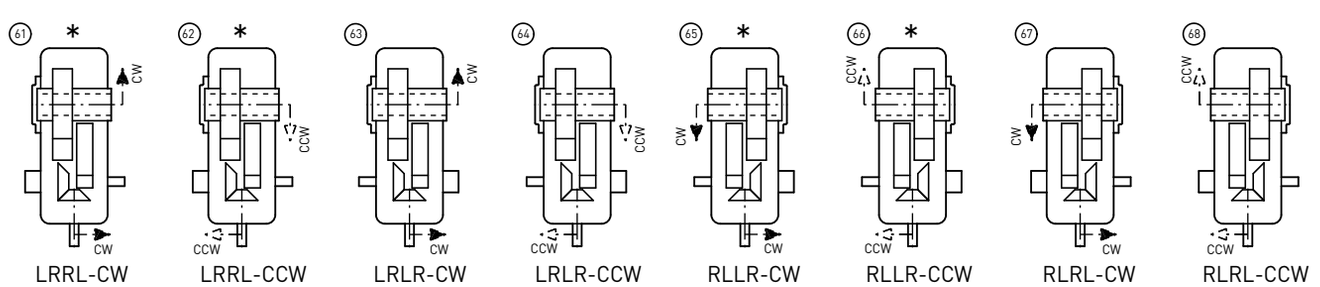
Shaft Arrangement - Int Ext & Hold Back

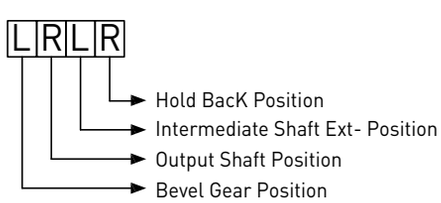
Type - **B3**

Triple Stage





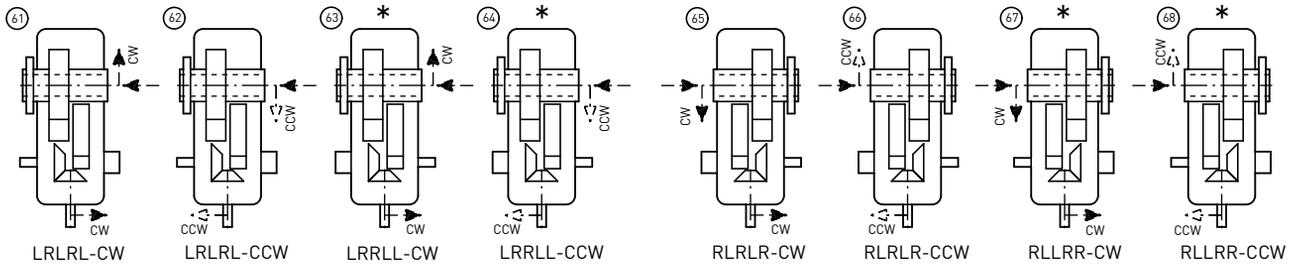


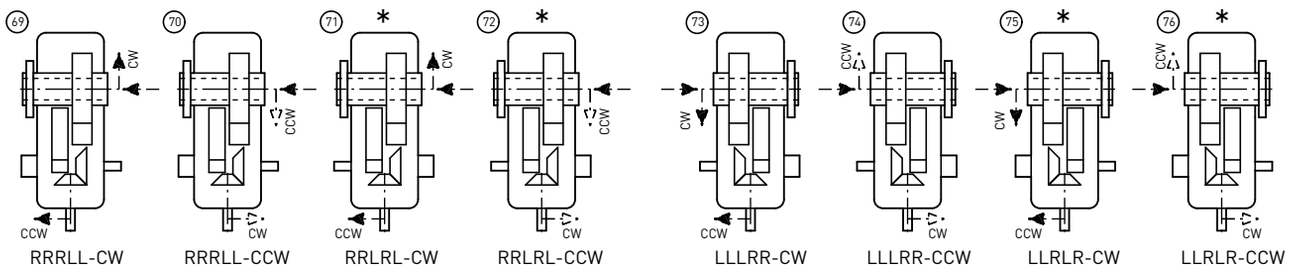


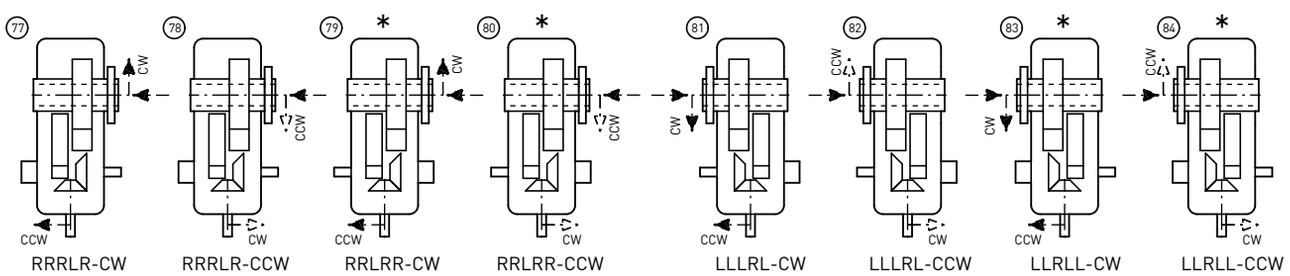
Type - **B3**

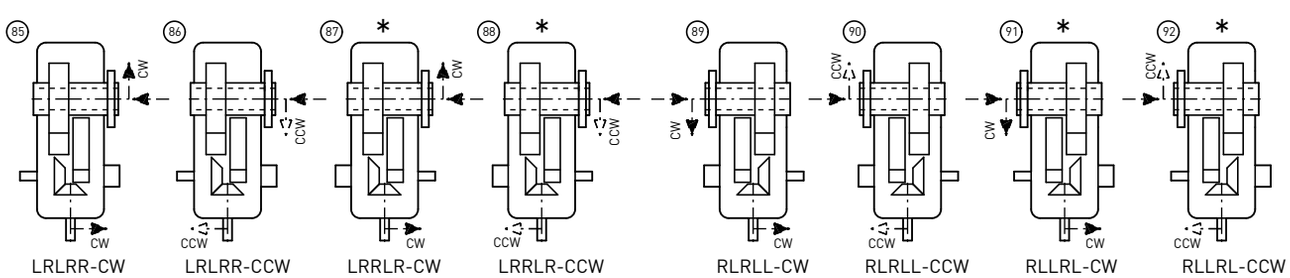
Triple Stage

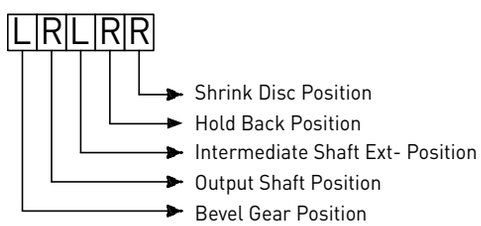
Shaft Arrangement - Int Ext & Hold Back Bevel Helical Gear Unit









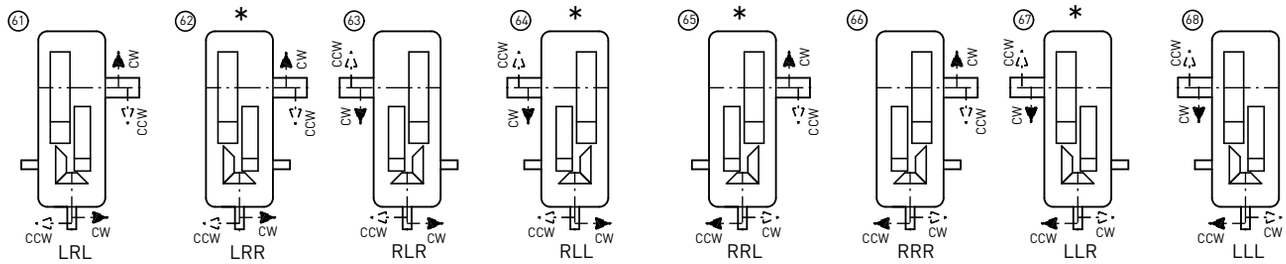


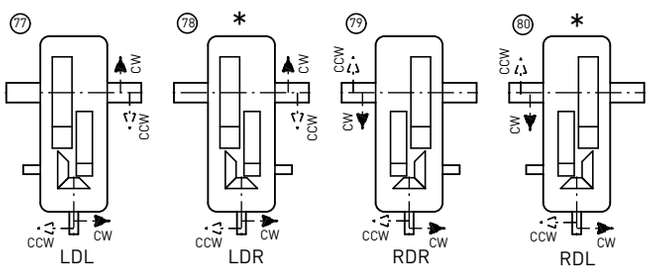
Bevel Helical Gear Unit

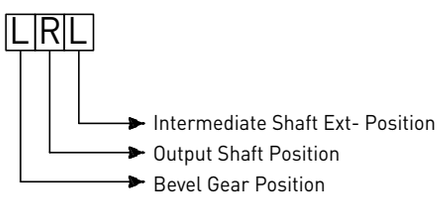
Shaft Arrangement - Int Ext

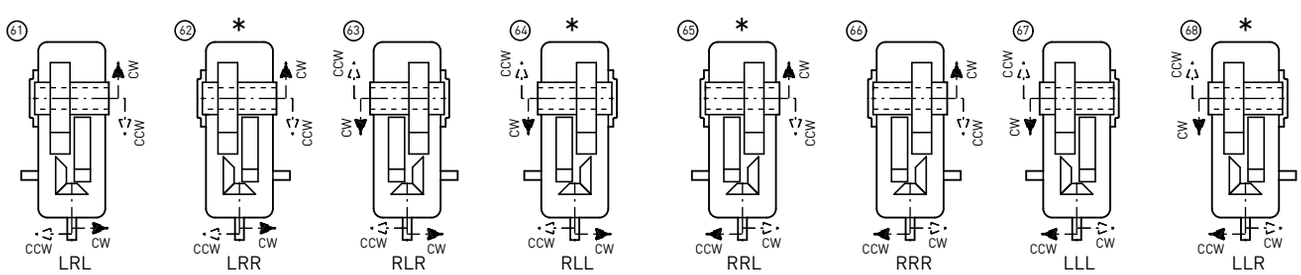
Type - **B3**

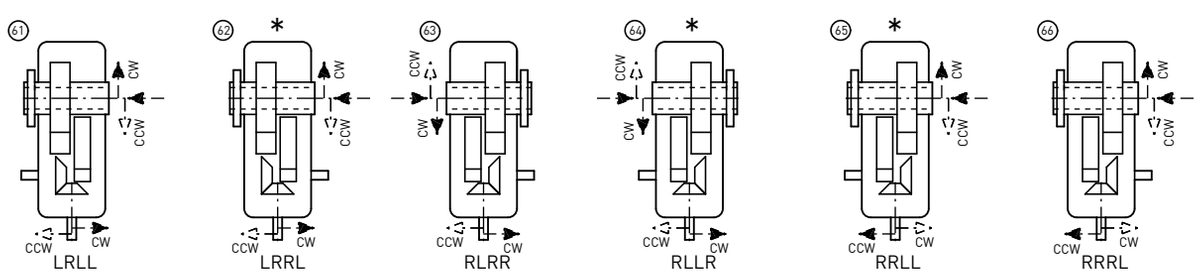
Triple Stage

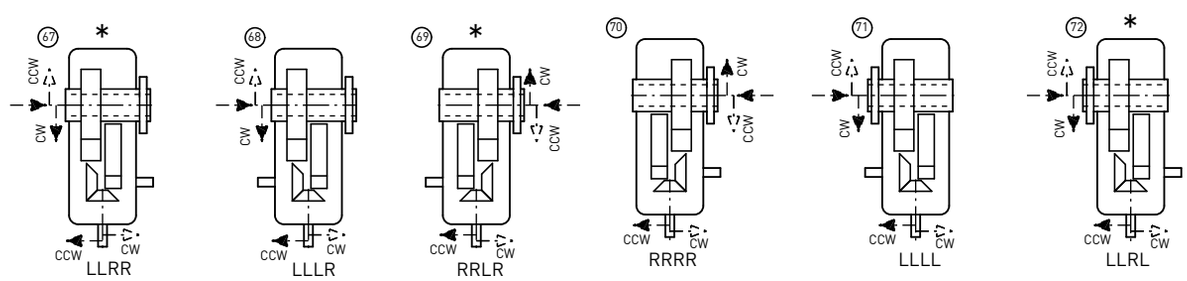


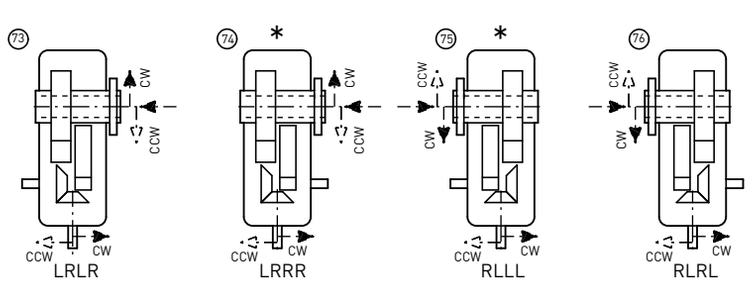


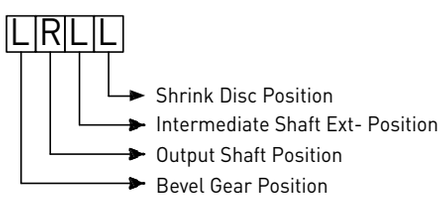










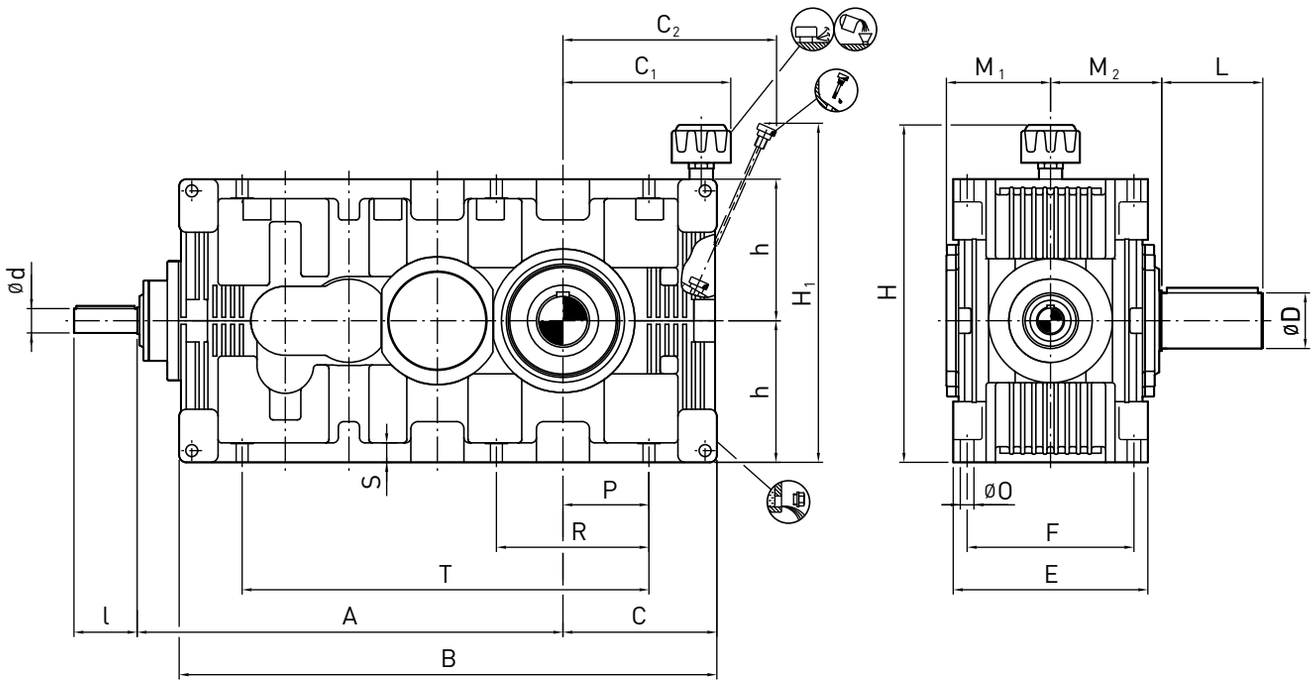


Type - B4H

Horizontal Mounting

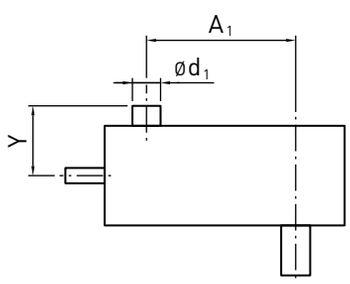
Bevel Helical Gear Unit

Quadruple Stage
Size 17 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 80-225 / i = 100-315 / i = 112-400 d	l	Input Shaft i = 250-400 / i = 355-560 / i = 450-560 d	l	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
B4..17	19	90	19	90	70	135	141	150	350	85	210	265	9
B4..18	24	100	24	100	80	160	158	170	395	95	255	355	13



Size	Foundation A	B	C	C_1 [2]	C_2 [1]	E	F	h	H_1 [1]	H [2]	O	P	R	S	T
B4..17	545	696	210	238	257	250	210	180	378	440	18	115	210	32	495
B4..18	600	787	236	263	281	284	230	200	404	480	18	135	240	32	565

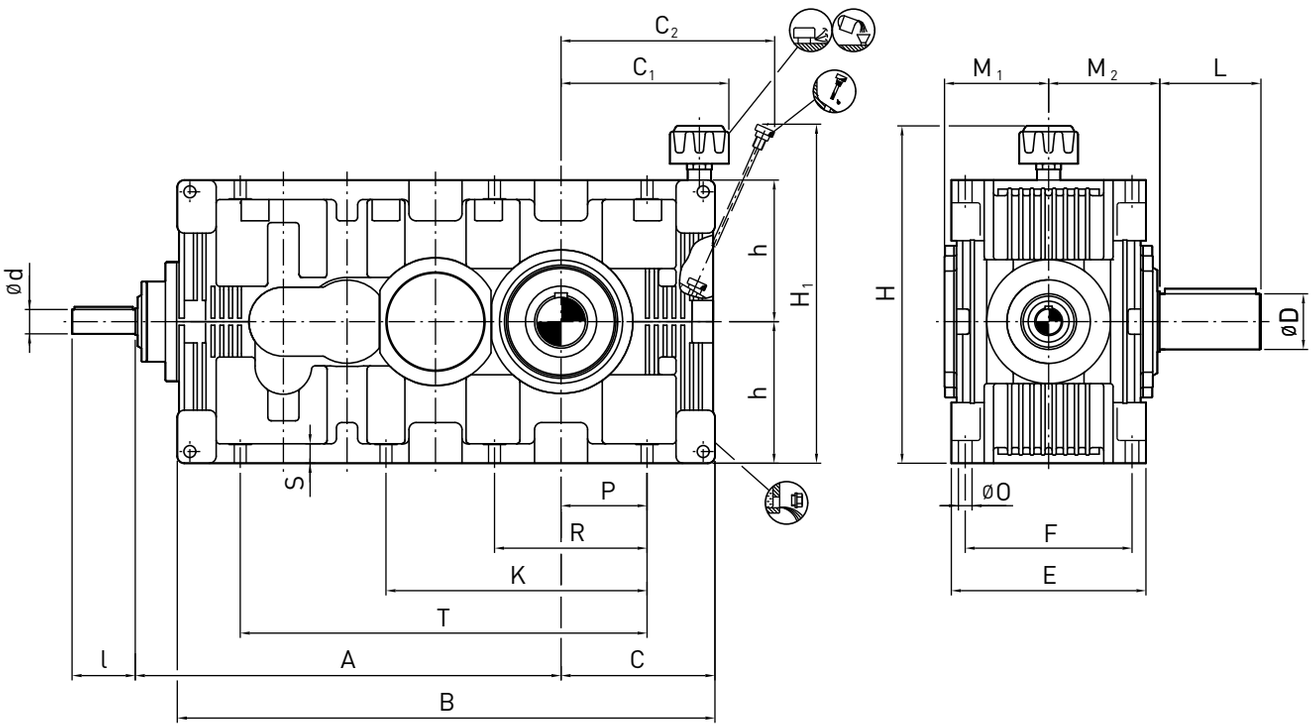
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Bevel Helical Gear Unit — Horizontal Mounting

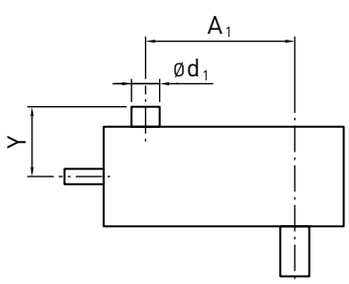
Type - **B4H**

Quadruple Stage
Size 19 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 80-225 / i = 100-315 / i = 112-400 d	l	Input Shaft i = 250-400 / i = 355-560 / i = 450-560 d	l	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
B4..19	24	100	24	100	90	165	171	180	440	95	255	480	18
B4..20	28	100	24	100	100	200	176	200	495	95	255	645	26
B4..21	32	110	28	100	110	200	210	220	555	135	310	870	33
B4..22	38	110	32	110	120	210	220	230	620	135	310	1170	46
B4..23	42	130	38	110	140	250	234	260	700	140	310	1590	65
B4..24	48	130	42	130	160	290	283	295	785	175	415	2145	90
B4..25	52	130	48	130	170	300	293	305	880	175	415	2895	125
B4..26	58	135	52	130	190	350	306	345	990	190	415	3885	180



Size	Foundation A	B	C	C_1 [2]	C_2 [1]	E	F	h	H_1 [1]	H [2]	K	O	P	R	S	T
B4..19	680	885	265	283	315	303	250	225	455	530		23	145	255	36	615
B4..20	755	987	288	304	345	314	270	250	496	580		23	165	290	36	705
B4..21	845	1098	320	359	394	385	310	280	572	650		27	180	315	45	780
B4..22	940	1220	355	390	429	400	340	315	635	720		27	200	355	45	880
B4..23	1060	1377	405	422	481	450	380	355	705	800	655	33	220	405	55	985
B4..24	1190	1520	435	452	541	515	410	400	795	890	740	33	245	450	55	1110
B4..25	1320	1690	475	493	591	535	460	450	865	990	840	33	280	510	55	1245
B4..26	1485	1920	540	553	659	600	510	500	954	1090	940	39	315	575	65	1400

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

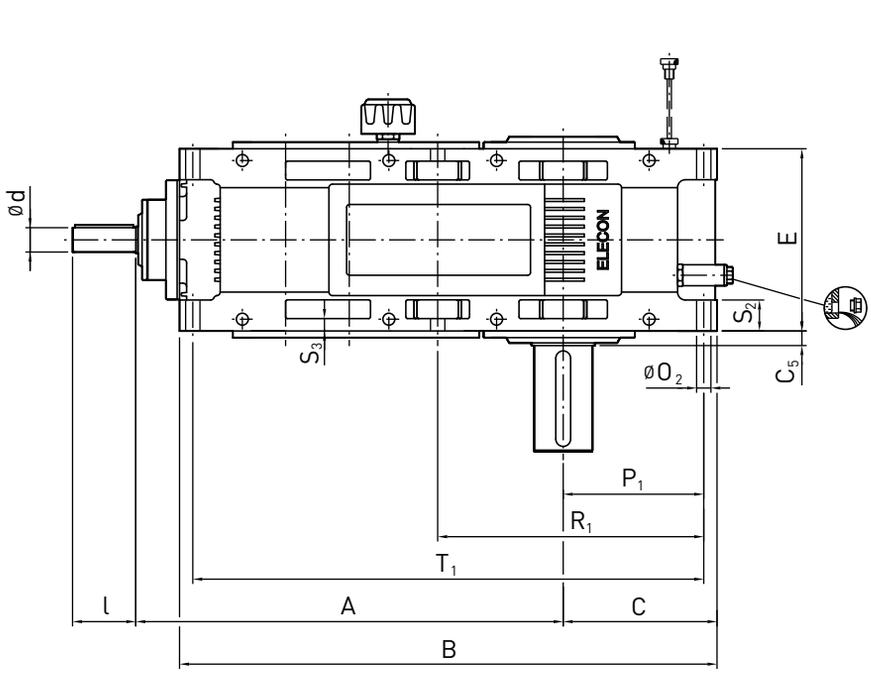
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

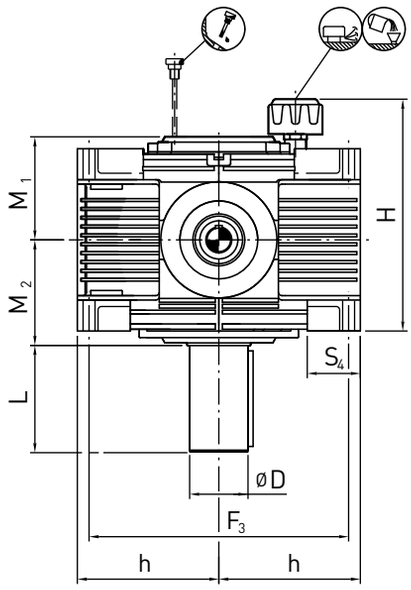
Type - B4V

Vertical Mounting

Bevel Helical Gear Unit

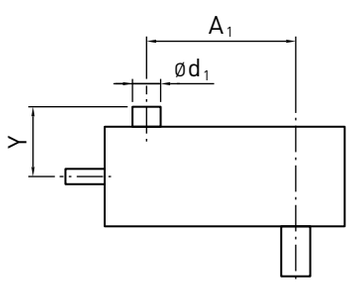
Quadruple Stage
Size 17 to 18





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 80-225 i = 112-400 d	l	Input Shaft i = 250-400 i = 450-560 d	l	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
	19	90	19	90	70	135	141	150	350	85	210	265	-
B4..18	24	100	24	100	80	160	158	170	395	95	255	355	-



Size	Foundation A	B	C	C_5	E	F_3	h	H [2]	O_2	P_1	R_1	S_2	S_3	S_4	T_1
B4..17	545	696	210	25	250	310	180	330	18	190	350	40	20	90	655
B4..18	600	787	236	28	284	350	200	364	18	215	395	45	20	90	744

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

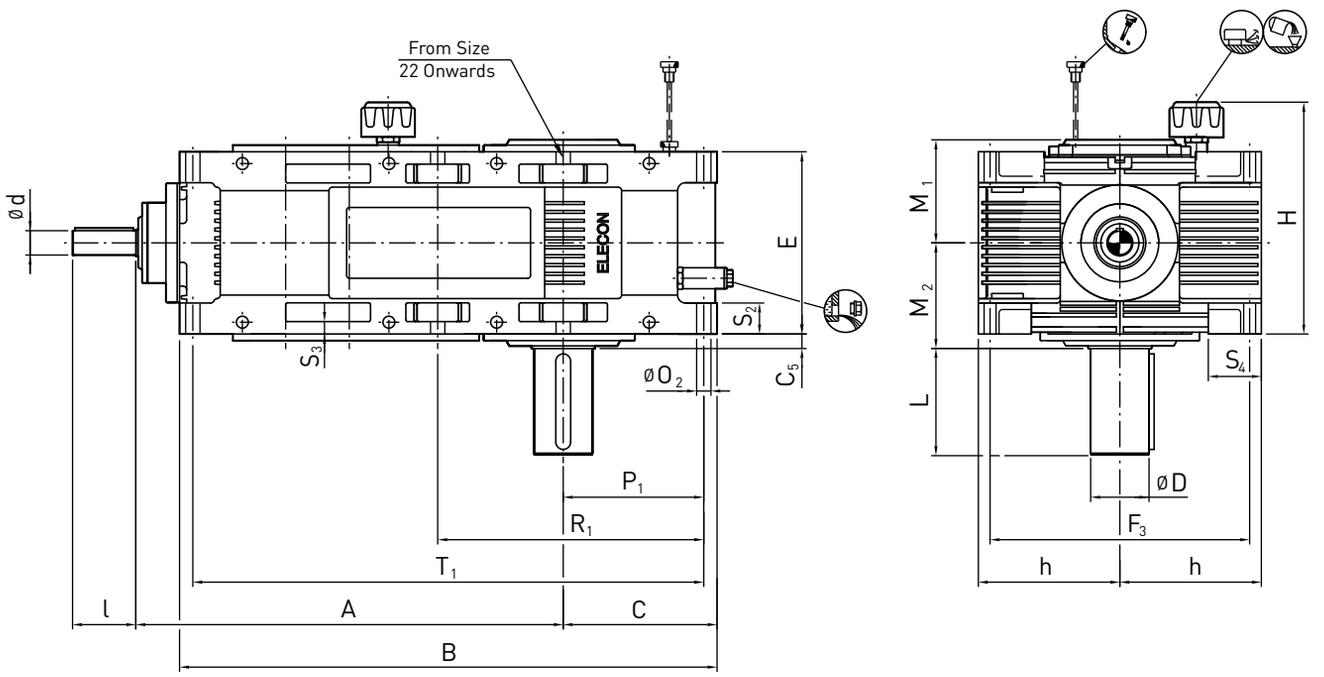
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Bevel Helical Gear Unit

Vertical Mounting

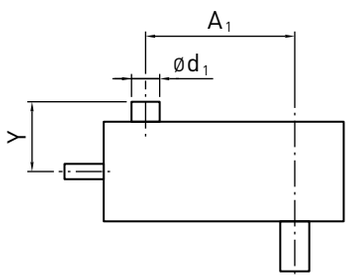
Type - **B4V**

Quadruple Stage
Size 19 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 80-225 / i = 100-315 / i = 112-400 d	l	Input Shaft i = 250-400 / i = 355-560 / i = 450-560 d	l	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
B4..19	24	100	24	100	90	165	171	180	440	95	255	480	-
B4..20	28	100	24	100	100	200	176	200	495	95	255	645	-
B4..21	32	110	28	100	110	200	210	220	555	135	310	870	-
B4..22	38	110	32	110	120	210	220	230	620	135	310	1170	-
B4..23	42	130	38	110	140	250	234	260	700	140	310	1590	-
B4..24	48	130	42	130	160	290	283	295	785	175	415	2145	-
B4..25	52	130	48	130	170	300	293	305	880	175	415	2895	-
B4..26	58	135	52	130	190	350	306	345	990	190	415	3885	-



Size	Foundation A	B	C	C_5	E	F_3	h	H [2]	O_2	P_1	R_1	S_2	S_3	S_4	T_1
B4..19	680	885	265	28.5	303	400	225	383	23	240	440	48.5	22	105	836
B4..20	755	987	288	43	314	440	250	394	23	262	487	45	24	105	935
B4..21	845	1098	320	27.5	385	500	280	475	27	295	545	65	28	120	1045
B4..22	940	1220	355	30	400	560	315	490	27	325	605	60	28	120	1160
B4..23	1060	1377	405	35	450	630	355	540	33	370	685	70	35	150	1305
B4..24	1190	1520	435	37.5	515	700	400	605	33	398	753	87.5	35	150	1443
B4..25	1320	1690	475	37.5	535	800	450	625	33	436	836	80	35	150	1612
B4..26	1485	1920	540	45	600	890	500	700	39	495	945	100	45	175	1830

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

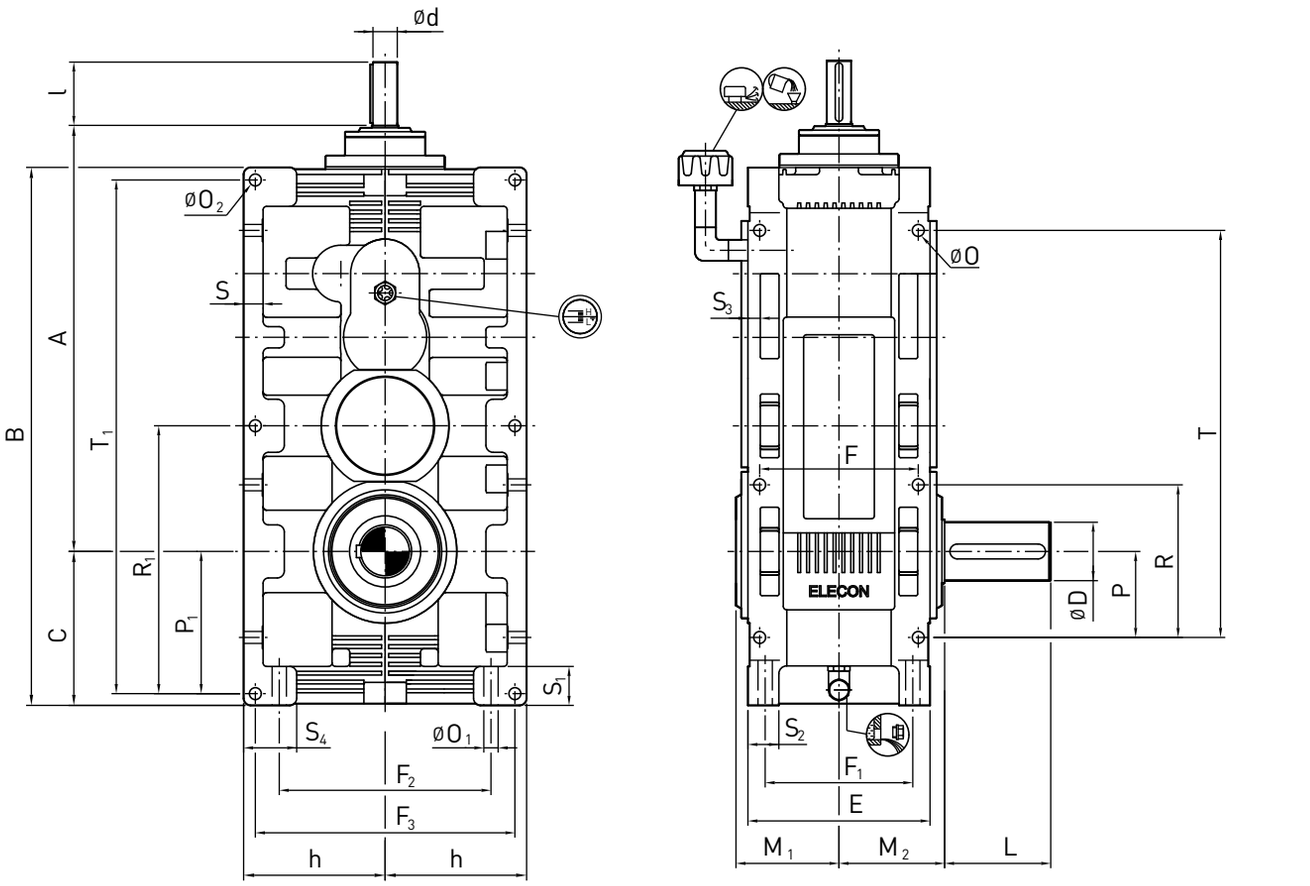
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Type - **B40**

Over Driven

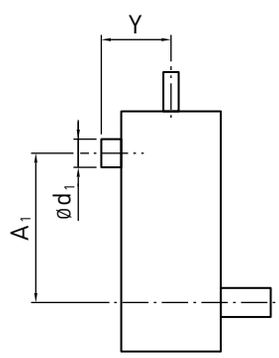
Bevel Helical Gear Unit

Quadruple Stage
Size 17 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 80-225 / i = 100-315 / i = 112-400 d	l	Input Shaft i = 250-400 / i = 355-560 / i = 450-560 d	l	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
B4..17	19	90	19	90	70	135	141	150	350	85	210	265	-
B4..18	24	100	24	100	80	160	158	170	395	95	255	355	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
B4..17	545	696	210	250	210	210	220	310	180	18	18	18	115	190	210	350	32	60	40	20	90	495	655
B4..18	600	787	236	284	230	230	260	350	200	18	18	18	135	215	240	395	32	66	45	20	90	565	744

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

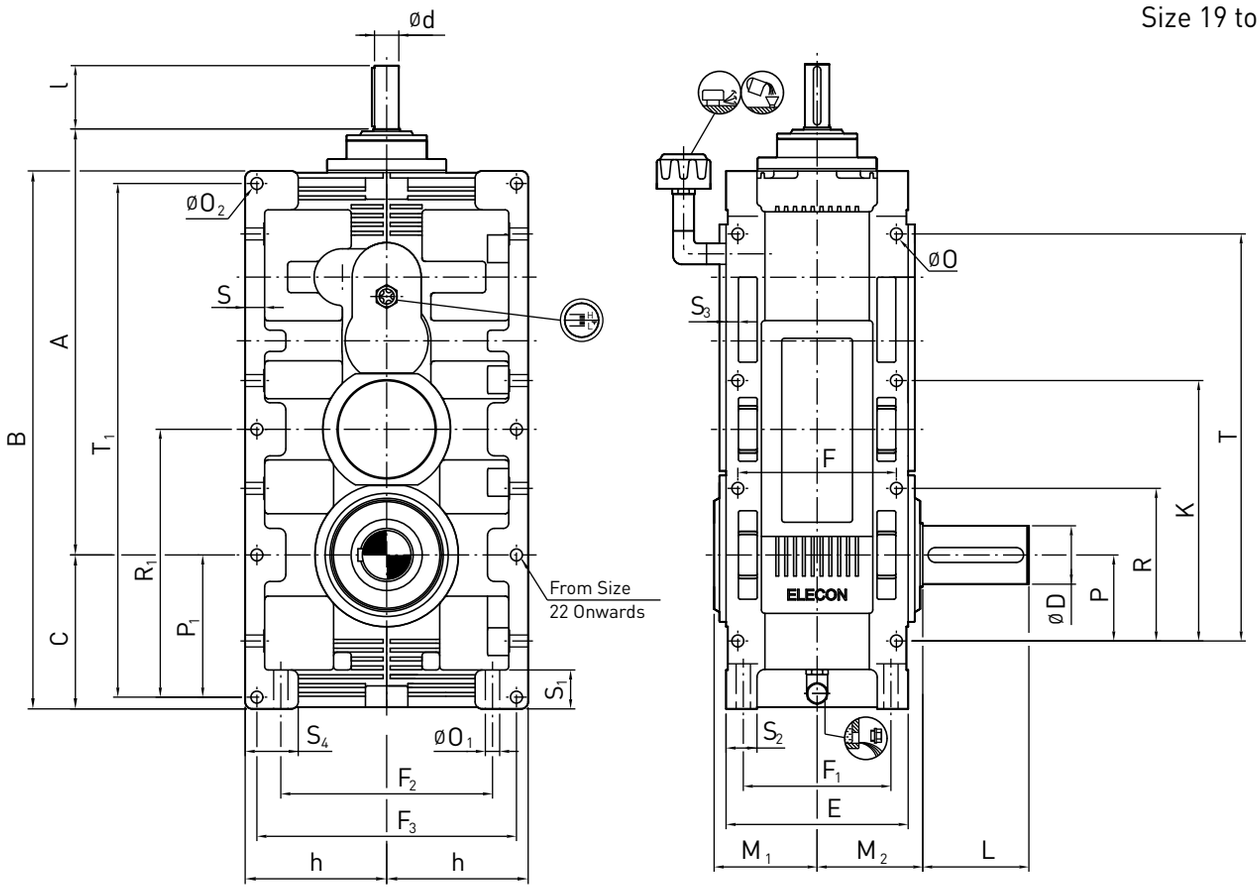
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Bevel Helical Gear Unit

Over Driven

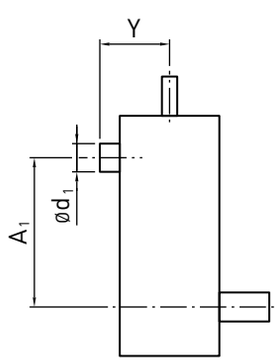
Type - **B40**

Quadruple Stage
Size 19 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 80-225 / i = 100-315 / i = 112-400 d	Input Shaft i = 80-225 / i = 100-315 / i = 112-400 l	Input Shaft i = 250-400 / i = 355-560 / i = 450-560 d	Input Shaft i = 250-400 / i = 355-560 / i = 450-560 l	Output Shaft D	Output Shaft L	Output Shaft M_1	Output Shaft M_2	Backstop A_1	Backstop d_1 1)	Backstop Y 1)	Average Weight [kg]	Oil Quantity [Litres]
B4..19	24	100	24	100	90	165	171	180	440	95	255	480	-
B4..20	28	100	24	100	100	200	176	200	495	95	255	645	-
B4..21	32	110	28	100	110	200	210	220	555	135	310	870	-
B4..22	38	110	32	110	120	210	220	230	620	135	310	1170	-
B4..23	42	130	38	110	140	250	234	260	700	140	310	1590	-
B4..24	48	130	42	130	160	290	283	295	785	175	415	2145	-
B4..25	52	130	48	130	170	300	293	305	880	175	415	2895	-
B4..26	58	135	52	130	190	350	306	345	990	190	415	3885	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	K	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
B4..19	680	885	265	303	250	250	290	400	225		23	23	23	145	240	255	440	36	75	48.5	22	105	615	836
B4..20	755	987	288	314	270	270	340	440	250		23	23	23	165	262	290	487	36	78	45	24	105	705	935
B4..21	845	1098	320	385	310	310	370	500	280		27	27	27	180	295	315	545	45	85	65	28	120	780	1045
B4..22	940	1220	355	400	340	340	440	560	315		27	27	27	200	325	355	605	45	90	60	28	120	880	1160
B4..23	1060	1377	405	450	380	380	480	630	355	655	33	33	33	220	370	405	685	55	110	70	35	150	985	1305
B4..24	1190	1520	435	515	410	410	570	700	400	740	33	33	33	245	398	450	753	55	110	87.5	35	150	1110	1443
B4..25	1320	1690	475	535	460	460	670	800	450	840	33	33	33	280	436	510	836	55	110	80	35	150	1245	1612
B4..26	1485	1920	540	600	510	510	730	890	500	940	39	39	39	315	495	575	945	65	130	100	45	175	1400	1830

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

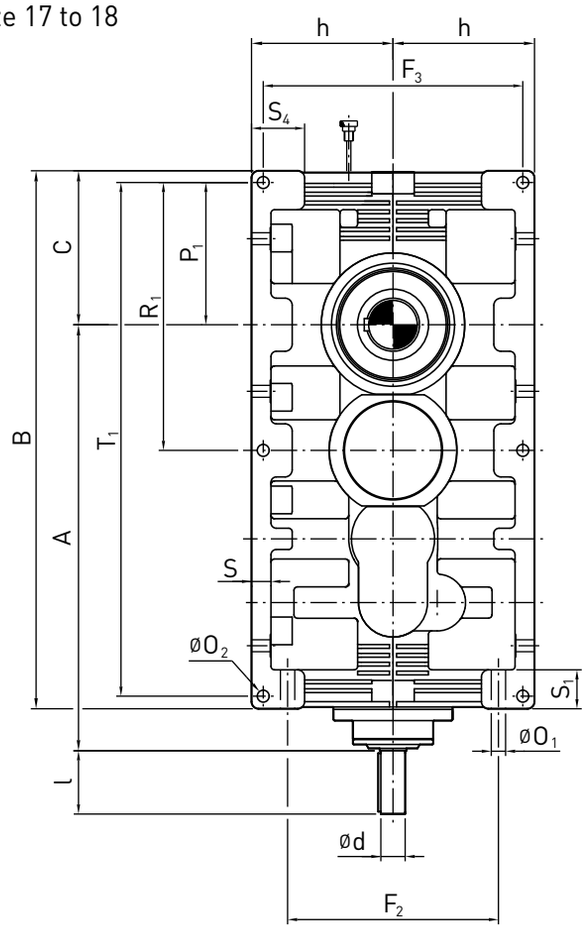
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

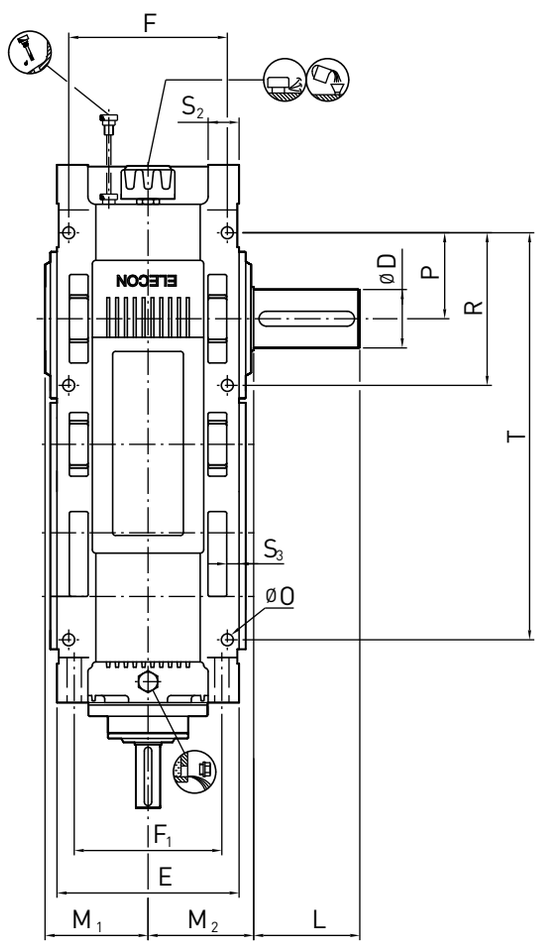
Type - **B4U**

Under Driven

Bevel Helical Gear Unit

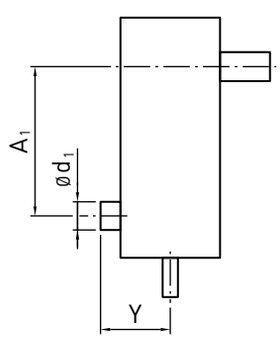
Quadruple Stage
Size 17 to 18





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 80-225 / i = 100-315 / i = 112-400 d	l	Input Shaft i = 250-400 / i = 355-560 / i = 450-560 d	l	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
B4..17	19	90	19	90	70	135	141	150	350	85	210	265	-
B4..18	24	100	24	100	80	160	158	170	395	95	255	355	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
B4..17	545	696	210	250	210	210	220	310	180	18	18	18	115	190	210	350	32	60	40	20	90	495	655
B4..18	600	787	236	284	230	230	260	350	200	18	18	18	135	215	240	395	32	66	45	20	90	565	744

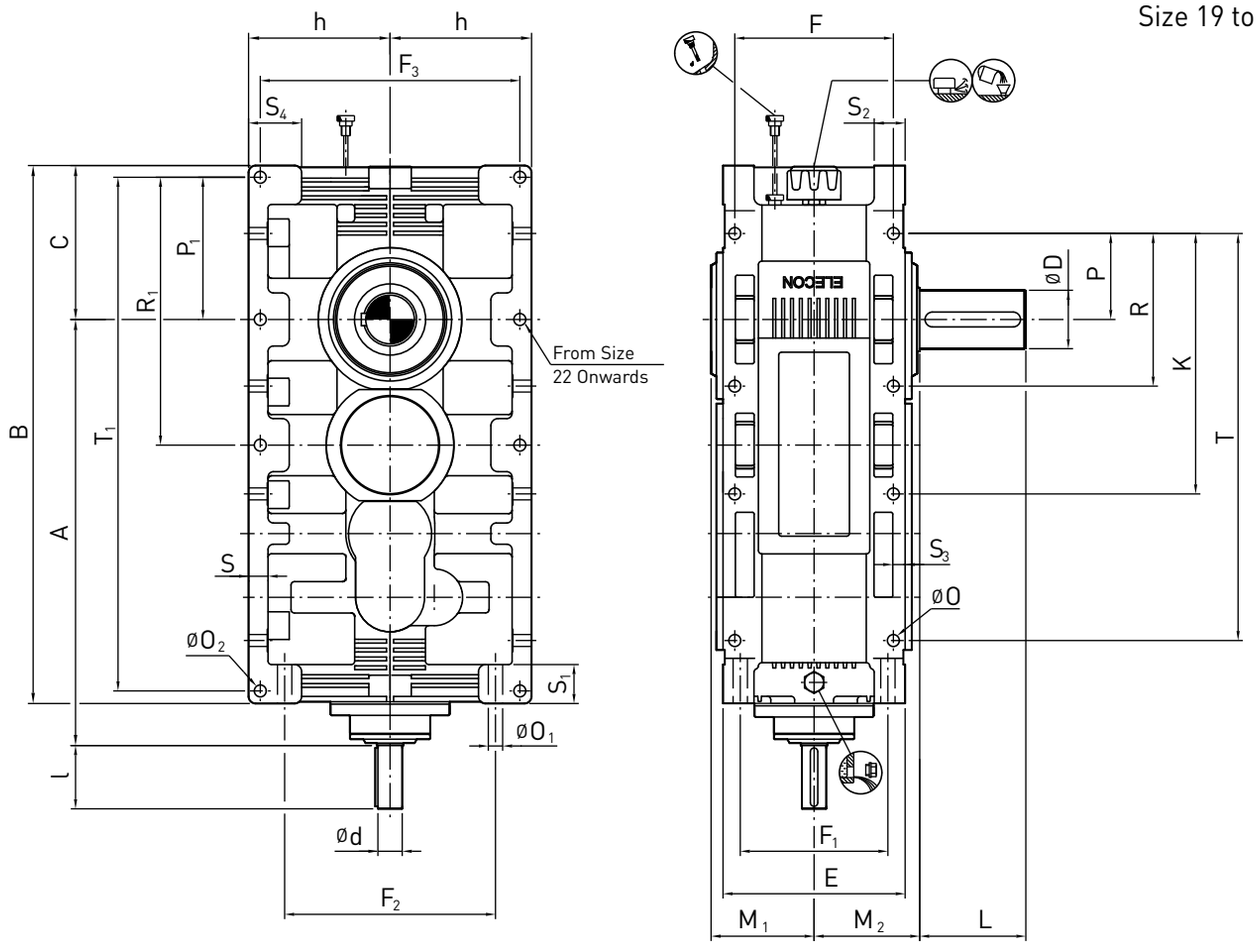
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Bevel Helical Gear Unit — Under Driven

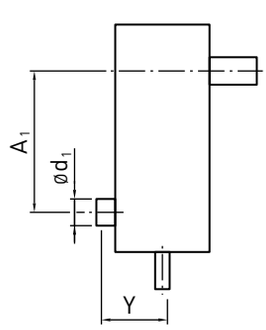
Type - B4U

Quadruple Stage
Size 19 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 80-225 / i = 100-315 / i = 112-400 d	Input Shaft i = 80-225 / i = 100-315 / i = 112-400 l	Input Shaft i = 250-400 / i = 355-560 / i = 450-560 d	Input Shaft i = 250-400 / i = 355-560 / i = 450-560 l	Output Shaft D	Output Shaft L	Output Shaft M_1	Output Shaft M_2	Backstop A_1	Backstop d_1 1)	Backstop Y 1)	Average Weight [Kg]	Oil Quantity [Litres]
B4..19	24	100	24	100	90	165	171	180	440	95	255	480	-
B4..20	28	100	24	100	100	200	176	200	495	95	255	645	-
B4..21	32	110	28	100	110	200	210	220	555	135	310	870	-
B4..22	38	110	32	110	120	210	220	230	620	135	310	1170	-
B4..23	42	130	38	110	140	250	234	260	700	140	310	1590	-
B4..24	48	130	42	130	160	290	283	295	785	175	415	2145	-
B4..25	52	130	48	130	170	300	293	305	880	175	415	2895	-
B4..26	58	135	52	130	190	350	306	345	990	190	415	3885	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	K	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
B4..19	680	885	265	303	250	250	290	400	225		23	23	23	145	240	255	440	36	75	48.5	22	105	615	836
B4..20	755	987	288	314	270	270	340	440	250		23	23	23	165	262	290	487	36	78	45	24	105	705	935
B4..21	845	1098	320	385	310	310	370	500	280		27	27	27	180	295	315	545	45	85	65	28	120	780	1045
B4..22	940	1220	355	400	340	340	440	560	315		27	27	27	200	325	355	605	45	90	60	28	120	880	1160
B4..23	1060	1377	405	450	380	380	480	630	355	655	33	33	33	220	370	405	685	55	110	70	35	150	985	1305
B4..24	1190	1520	435	515	410	410	570	700	400	740	33	33	33	245	398	450	753	55	110	87.5	35	150	1110	1443
B4..25	1320	1690	475	535	460	460	670	800	450	840	33	33	33	280	436	510	836	55	110	80	35	150	1245	1612
B4..26	1485	1920	540	600	510	510	730	890	500	940	39	39	39	315	495	575	945	65	130	100	45	175	1400	1830

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

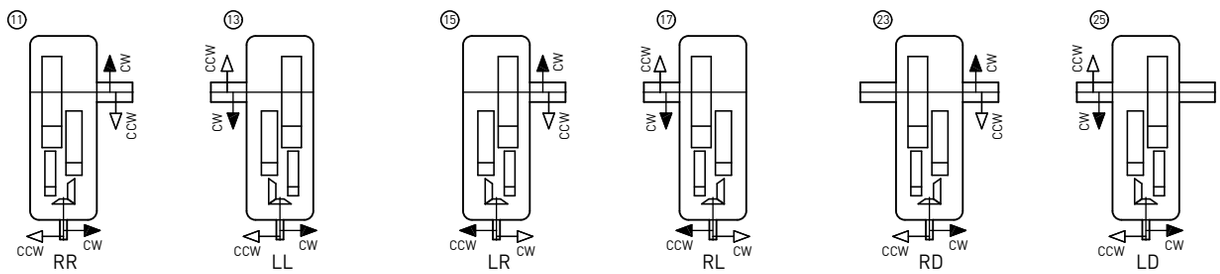
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

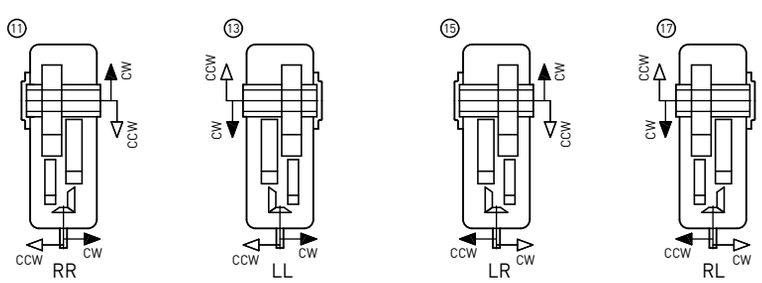
Type - **B4**

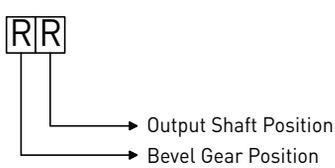
Quadruple Stage

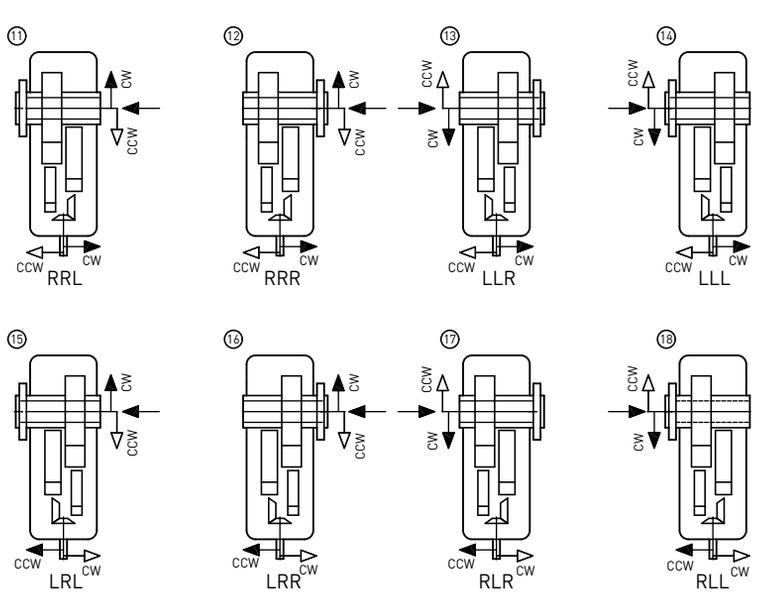
Shaft Arrangement

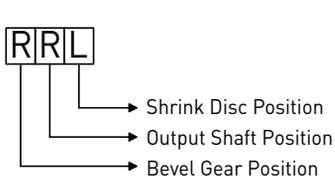
Bevel Helical Gear Unit









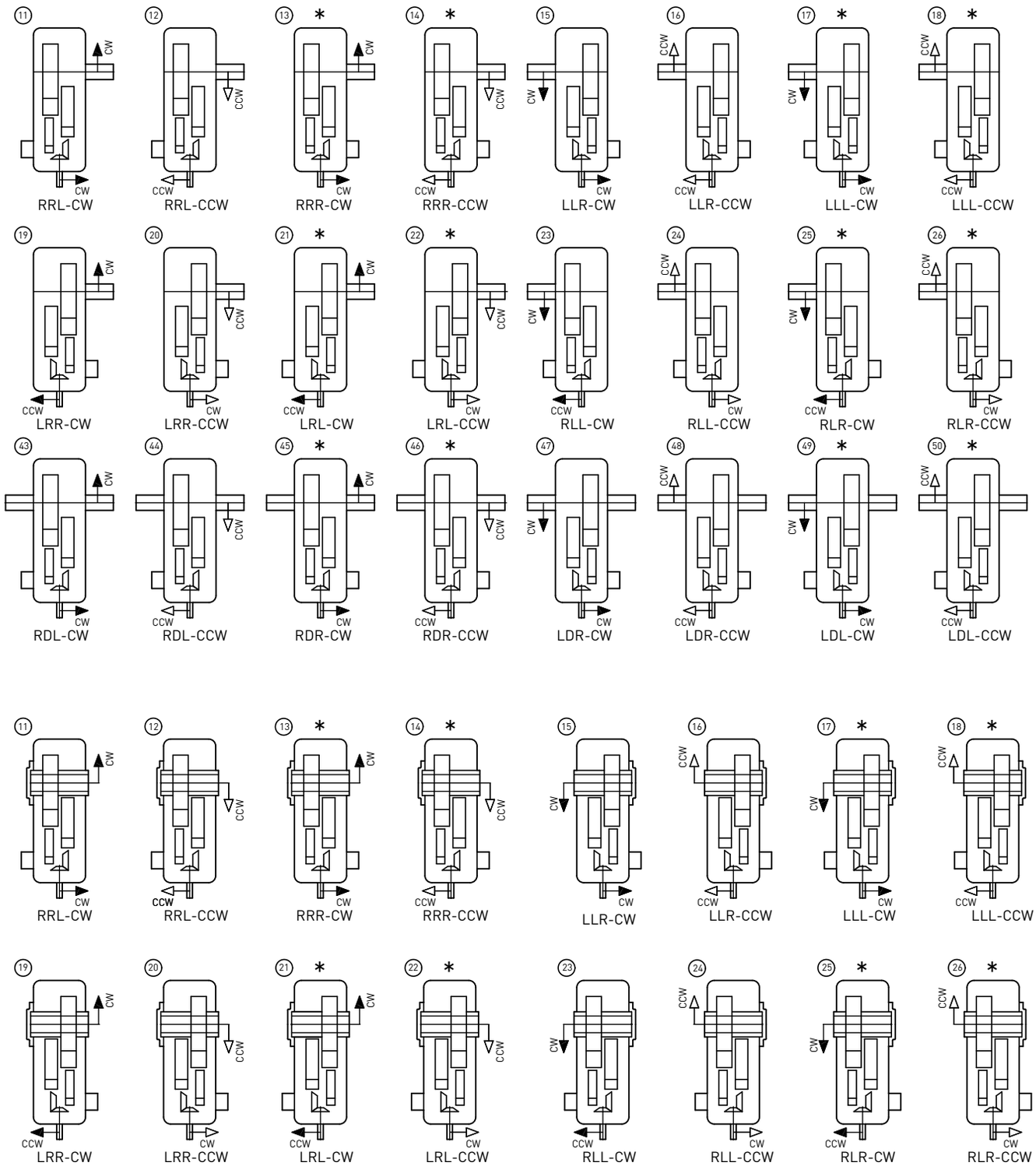


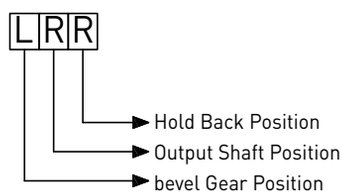
Bevel Helical Gear Unit

Shaft Arrangement - Hold Back

Type - **B4**

Quadruple Stage



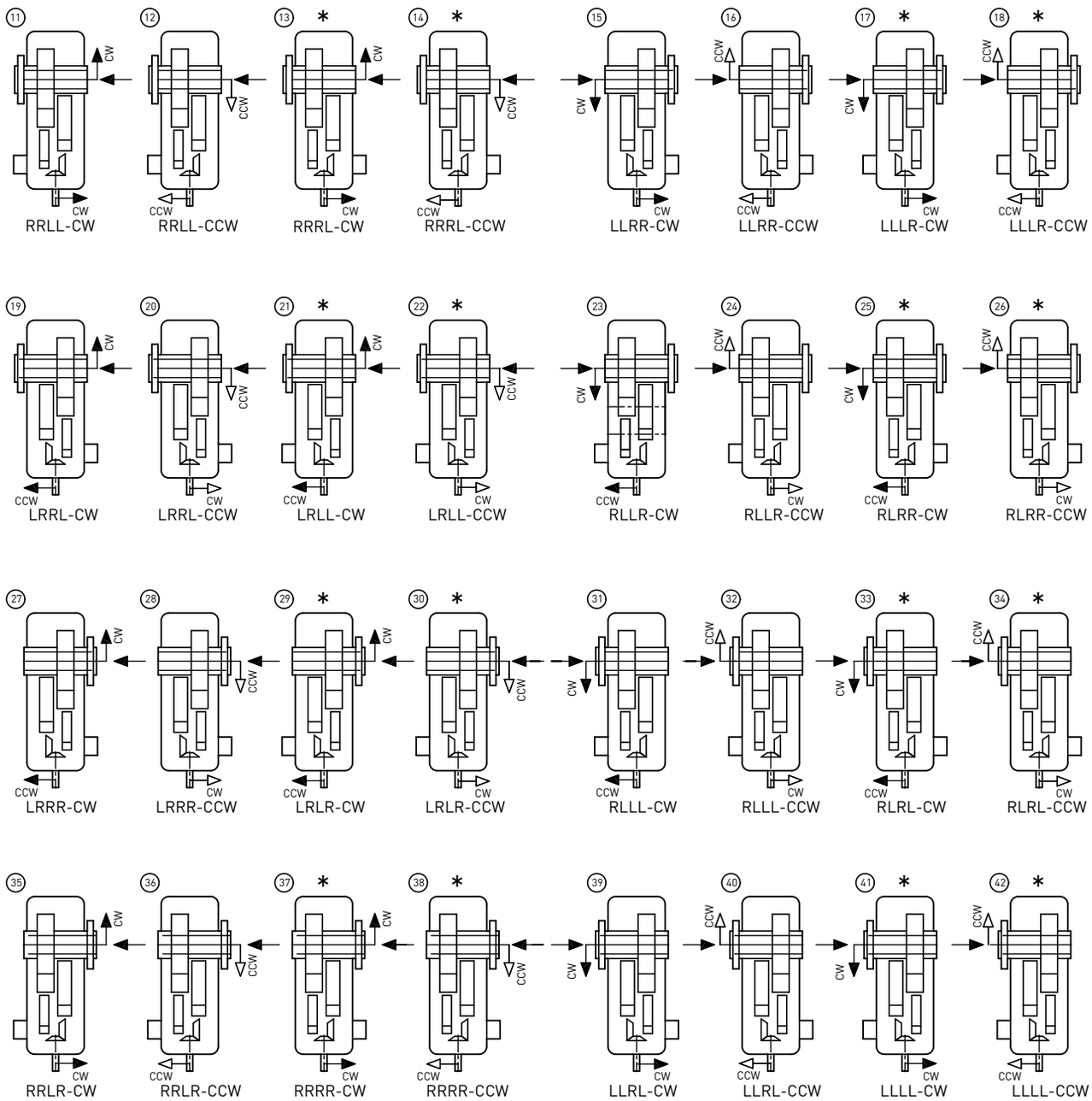


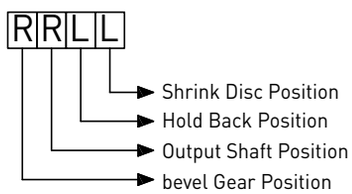
Type - **B4**

Quadruple Stage

Shaft Arrangement - Hold Back

Bevel Helical Gear Unit



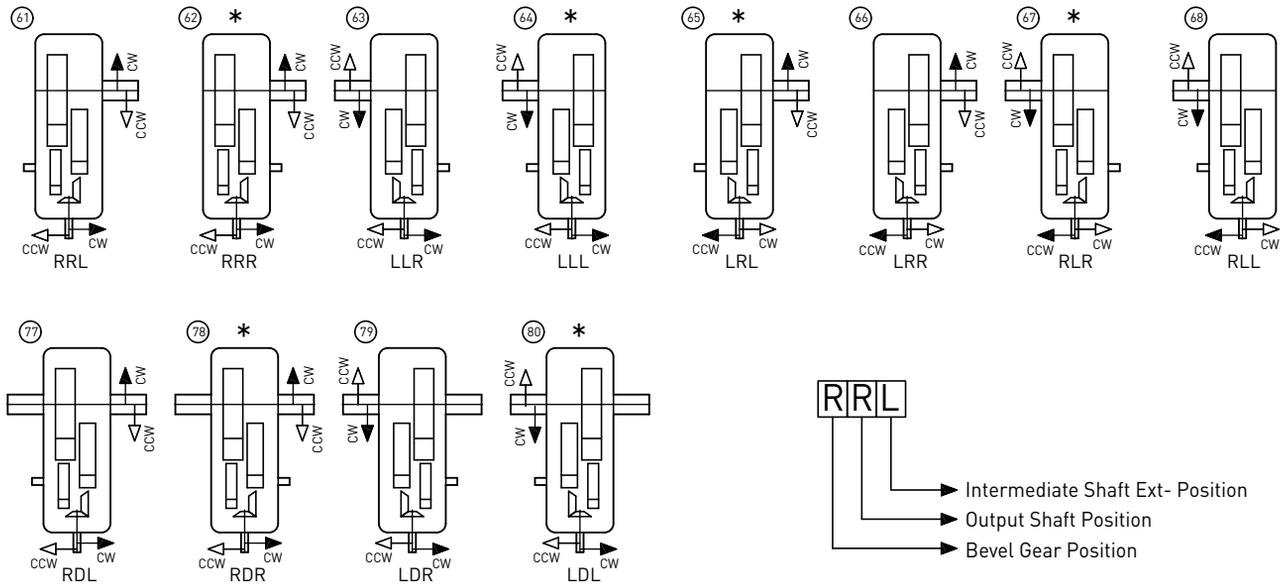


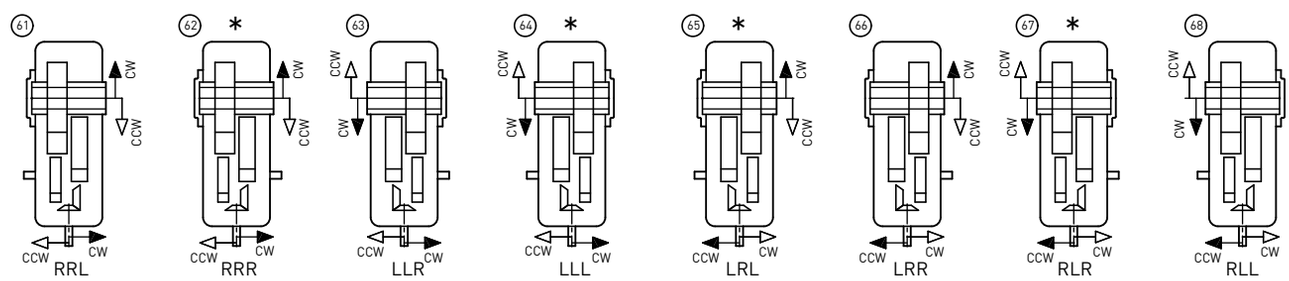
Bevel Helical Gear Unit

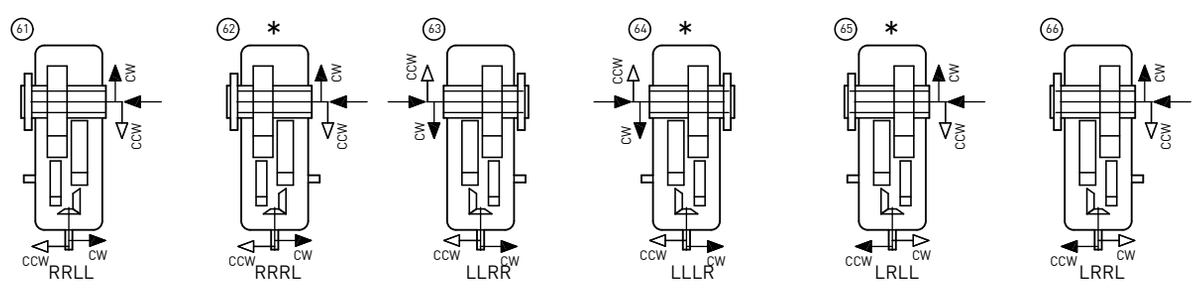
Shaft Arrangement - Int Ext

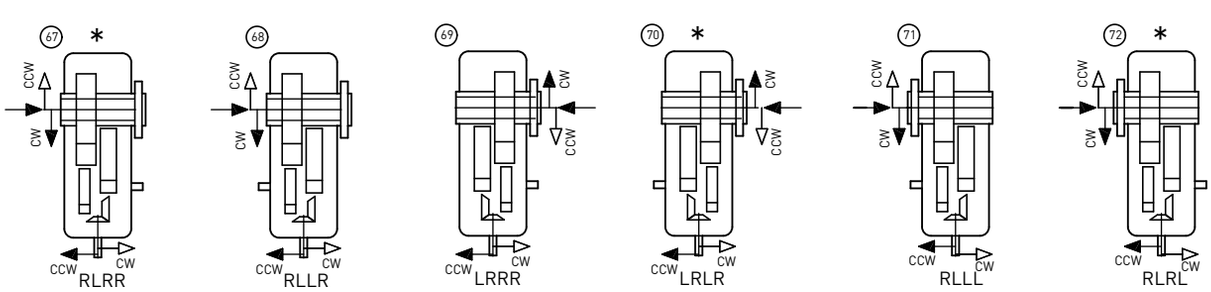
Type - **B4**

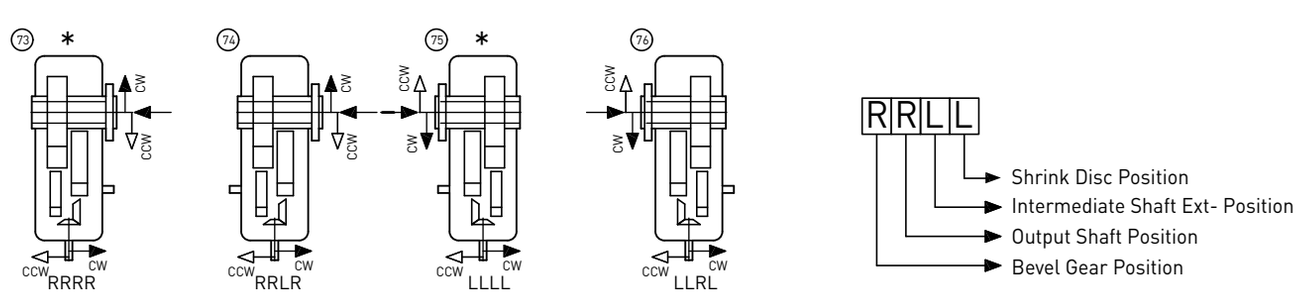
Quadruple Stage









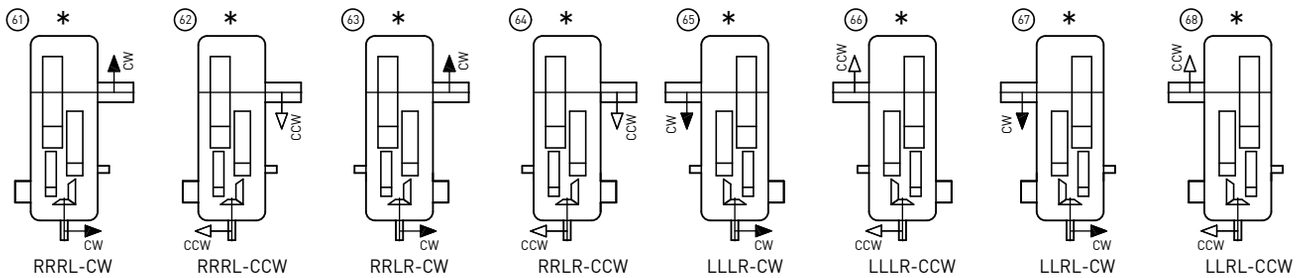


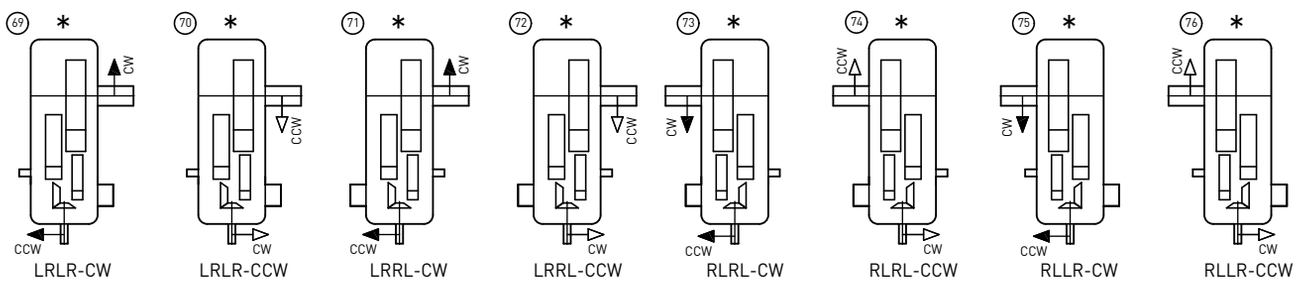
Type - **B4**

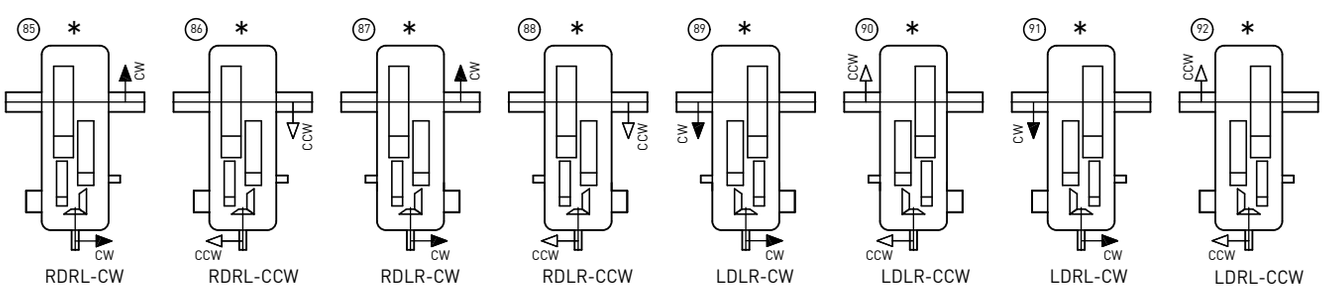
Quadruple Stage

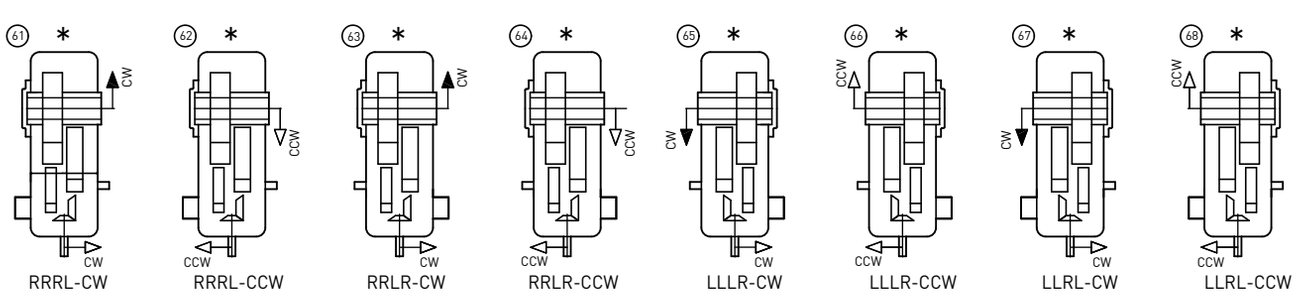
Shaft Arrangement - Int Ext & Hold Back

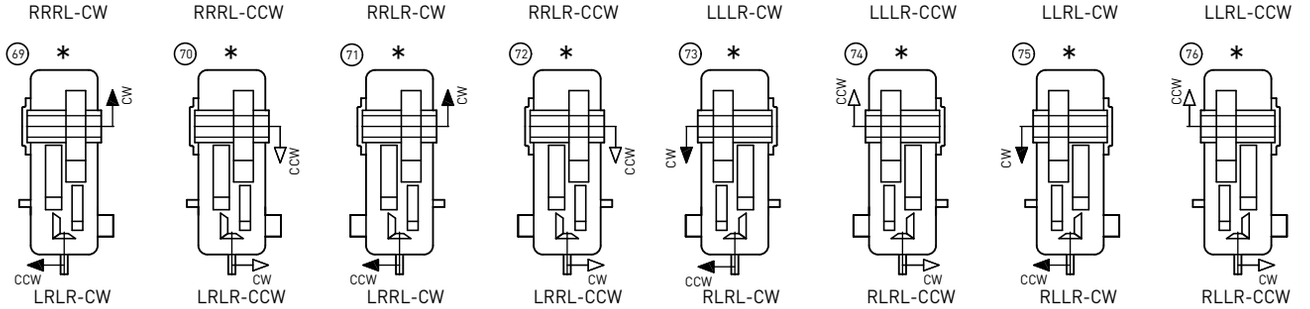
Bevel Helical Gear Unit

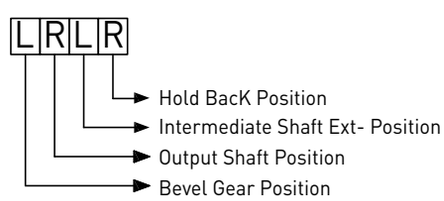






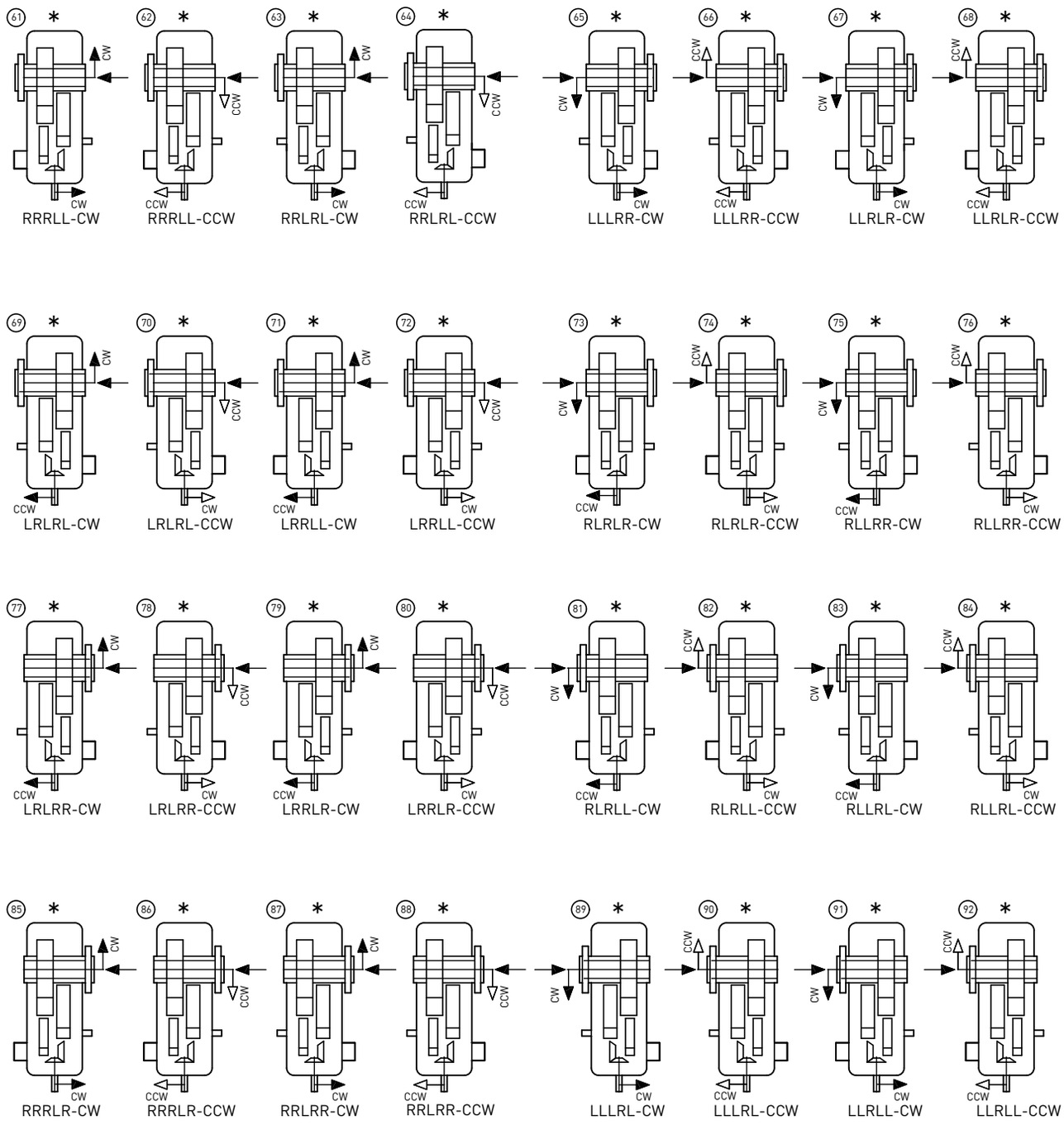


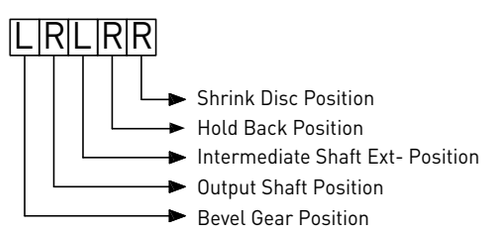




Bevel Helical Gear Unit Shaft Arrangement - Int Ext & Hold Back Type - **B4**

Quadruple Stage



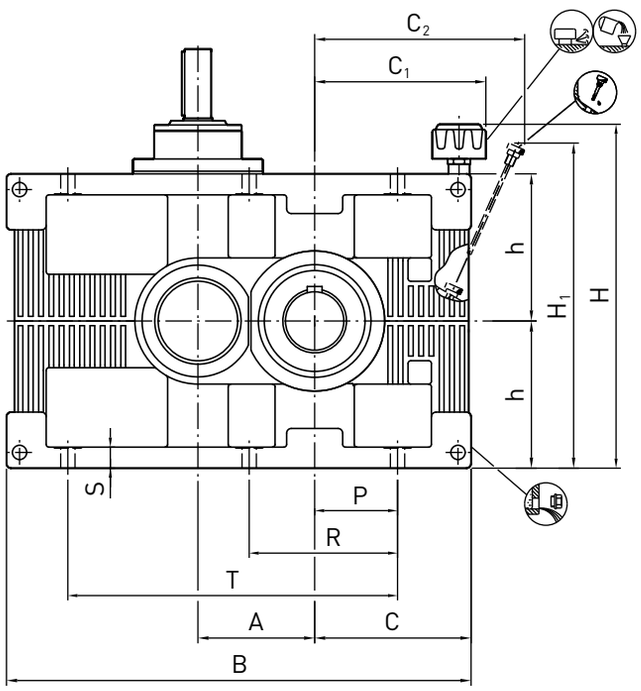


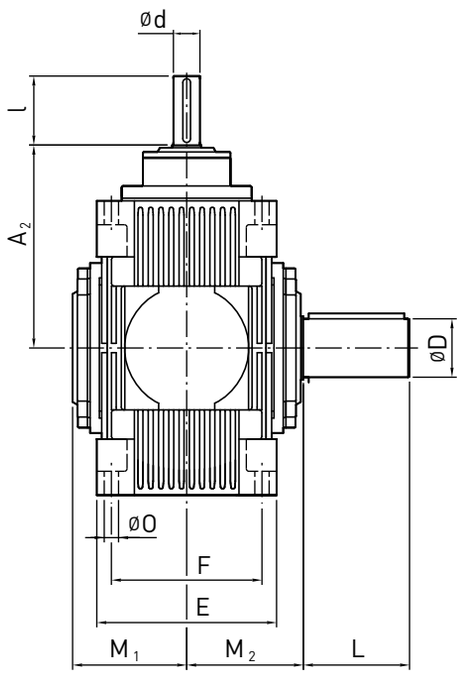
Type - C2H

Horizontal Mounting

Compact Drive Gear Units

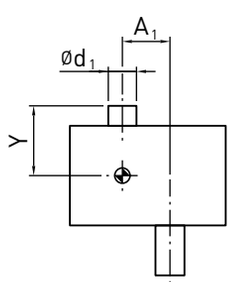
Double Stage
Size 11 to 18





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5-12.5 / i = 5.6-14 / i = 6.3-16 d	Input Shaft i = 5-12.5 / i = 5.6-14 / i = 6.3-16 l	Input Shaft i = 14-18 / i = 16-20 / i = 18-22.4 d	Input Shaft i = 14-18 / i = 16-20 / i = 18-22.4 l	A_2	Output Shaft D	Output Shaft L	Output Shaft M_1	Output Shaft M_2	Backstop A_1	Backstop d_1 [1]	Backstop Y [1]	Average Weight [kg]	Oil Quantity [Litres]
C2..11	19	90	19	90	On Request	32	55	94	105	80	95	180	40	1.5
C2..13	24	100	24	100		45	95	106	115	100	105	190	75	2.5
C2..15	32	110	28	100		55	95	127	135	125	140	255	135	4
C2..17	42	130	38	110		70	135	141	150	160	175	255	250	7
C2..18	48	130	42	130		80	160	158	170	180	190	305	330	9



Size	Foundation A	B	C	C_1 [2]	C_2 [1]	E	F	h	H_1 [1]	H [2]	O	P	R	S	T
C2..11	80	356	140	176	171	180	150	100	248	260	14	50	95	24	215
C2..13	100	435	155	192	195	190	150	125	295	330	14	65	120	24	270
C2..15	125	520	182	218	231	228	170	160	352	400	14	95	170	24	355
C2..17	160	640	220	248	282	250	210	200	432	480	18	115	210	32	440
C2..18	180	716	246	273	311	284	230	225	475	530	18	135	240	32	505

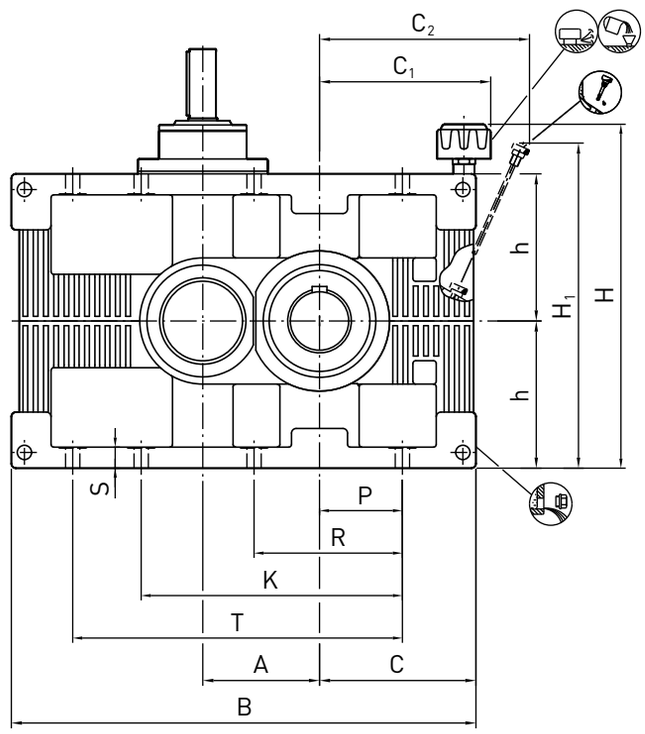
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

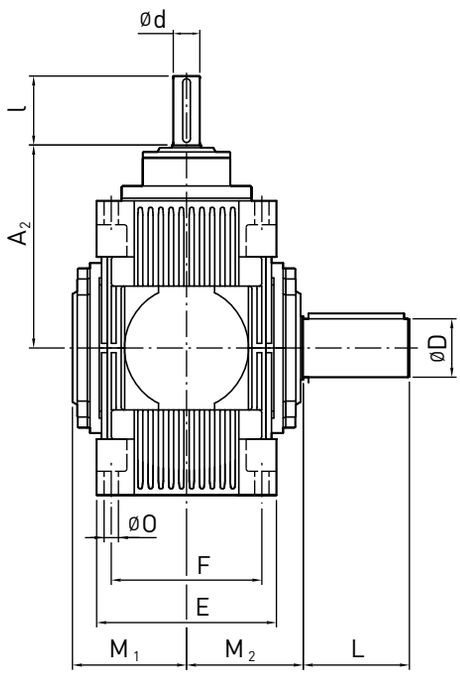
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Compact Drive Gear Units — Horizontal Mounting

Type - C2H

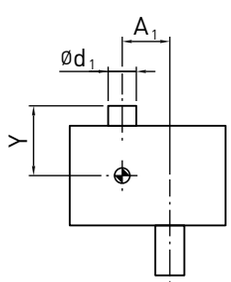
Double Stage
Size 20 to 26





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5-12.5 / i = 5.6-14 / i = 6.3-16 d	Input Shaft i = 14-18 / i = 16-20 / i = 18-22.4 l	d	l	A_2	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
C2..20	58	135	52	135	On Request	100	200	176	200	225	210	305	595	18
C2..21	65	155	65	155		110	200	210	220	250	245	390	795	25
C2..22	70	155	70	155		120	210	220	230	280	290	390	1080	36
C2..23	85	180	80	180		140	250	234	260	315	290	390	1455	51
C2..24	90	180	90	180		160	290	283	295	355	310	470	1960	69
C2..25	100	220	100	220		170	300	293	305	400	310	470	2650	95
C2..26	110	220	110	220		190	350	306	345	450	400	470	3570	130



Size	Foundation A	B	C	C_1 [2]	C_2 [1]	E	F	h	H_1 [1]	H [2]	K	O	P	R	S	T
C2..20	225	893	303	319	387	314	270	280	588	640		23	165	290	36	635
C2..21	250	995	335	374	435	385	310	315	664	720		27	180	315	45	705
C2..22	280	1095	370	405	474	400	340	355	741	800		27	200	355	45	785
C2..23	315	1250	425	442	537	450	380	400	831	890		33	220	405	55	875
C2..24	355	1365	465	482	598	515	410	450	908	990		33	245	450	55	975
C2..25	400	1505	510	528	670	535	460	500	1013	1090		33	280	510	55	1105
C2..26	450	1710	580	593	753	600	510	560	1137	1210	940	39	315	575	65	1245

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

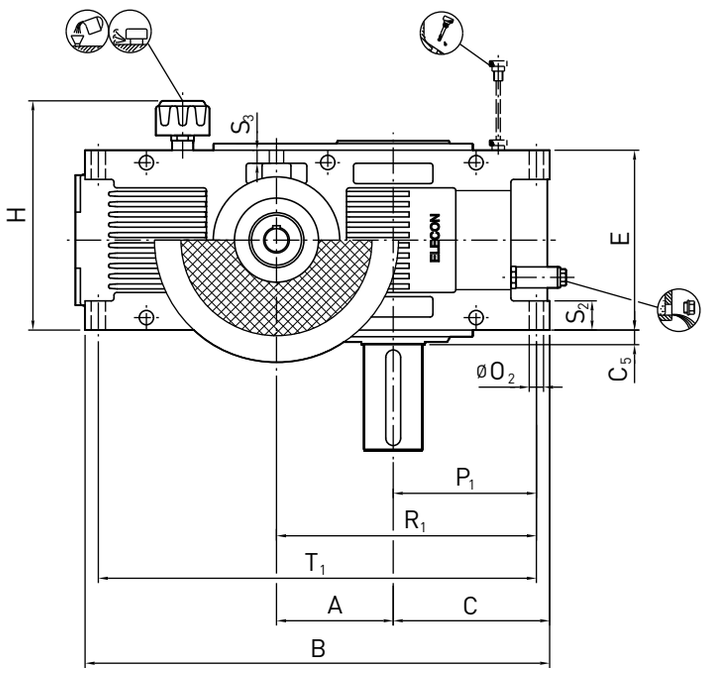
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

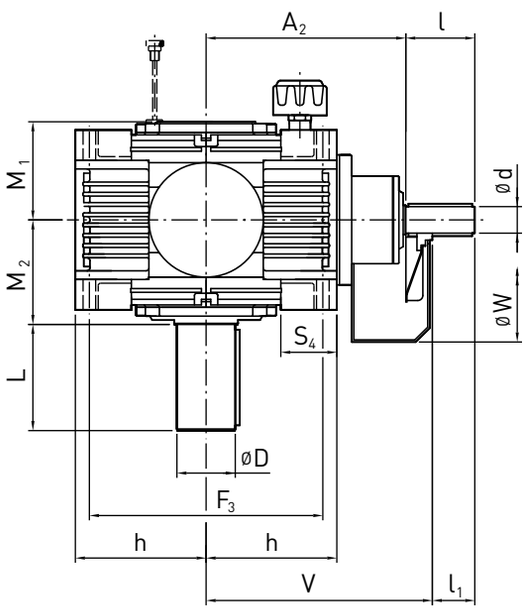
Type - C2V

Vertical Mounting

Compact Drive Gear Units

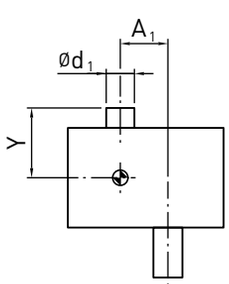
Double Stage
Size 11 to 18





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5-12.5 / i = 5.6-14 / i = 6.3-16			Input Shaft i = 14-18 / i = 16-20 / i = 18-22.4						Output Shaft				Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	A_2	V	W	D	L	M_1	M_2	A_1	d_1 [1]	Y [1]		
C2..11	19	90	40	19	90	40	On Request		210	32	55	94	105	80	95	180	40	-
C2..13	24	100	50	24	100	50			270	45	95	106	115	100	105	190	75	-
C2..15	32	110	60	28	100	50			300	55	95	127	135	125	140	255	135	-
C2..17	42	130	80	38	110	60			360	70	135	141	150	160	175	255	250	-
C2..18	48	130	80	42	130	80			360	80	160	158	170	180	190	305	330	-



Size	Foundation A	B	C	C_5	E	F_3	h	H [2]	O_2	P_1	R_1	S_2	S_3	S_4	T_1
C2..11	80	356	176	20	180	160	100	225	14	124			14	66	324
C2..13	100	435	192	20	190	210	125	270	14	140			15	66	406
C2..15	125	520	218	21	228	270	160	308	14	165	290	45	15	70	486
C2..17	160	640	248	25	250	350	200	330	18	202	362	40	20	90	604
C2..18	180	716	273	28	284	400	225	364	18	224	404	45	20	90	672

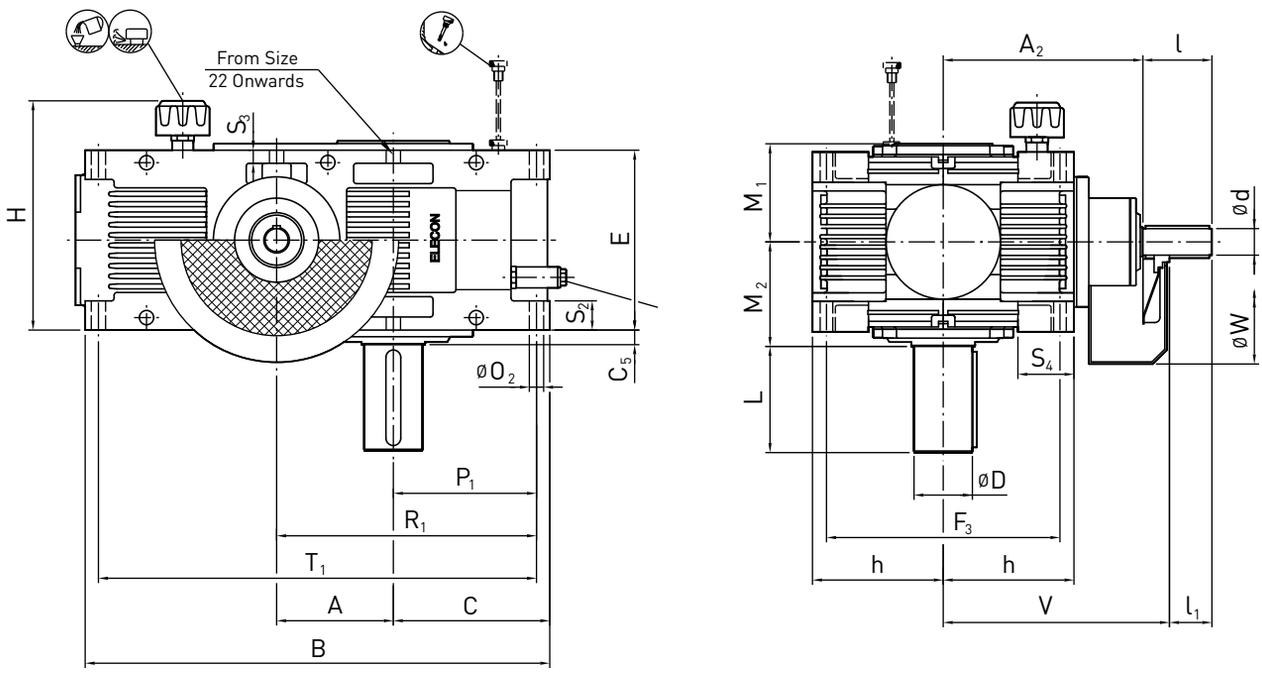
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Compact Drive Gear Units — Vertical Mounting

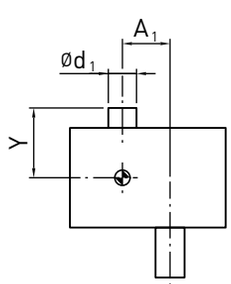
Type - C2V

Double Stage
Size 20 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft: i = 5-12.5 / i = 5.6-14 / i = 6.3-16			Input Shaft: i = 14-18 / i = 16-20 / i = 18-22.4						Output Shaft				Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	A_2	V	W	D	L	M_1	M_2	A_1	d_1 [1]	Y [1]		
C2..20	58	135	85	52	135	85	On Request		460	100	200	176	200	225	210	305	595	-
C2..21	65	155	105	65	155	105			530	110	200	210	220	250	245	390	795	-
C2..22	70	155	105	70	155	105			550	120	210	220	230	280	290	390	1080	-
C2..23	85	180	130	80	180	130			550	140	250	234	260	315	290	390	1455	-
C2..24	90	180	130	90	180	130			650	160	290	283	295	355	310	470	1960	-
C2..25	100	220	170	100	220	170			700	170	300	293	305	400	310	470	2650	-
C2..26	110	220	170	110	220	170			700	190	350	306	345	450	400	470	3570	-



Size	Foundation														
	A	B	C	C_5	E	F_3	h	H [2]	O_2	P_1	R_1	S_2	S_3	S_4	T_1
C2..20	225	893	303	43	314	500	280	394	23	276	501	45	24	105	839
C2..21	250	995	335	27.5	385	570	315	475	27	305	555	65	28	120	935
C2..22	280	1095	370	30	400	640	355	490	27	339	619	60	28	120	1033
C2..23	315	1250	425	35	450	720	400	540	33	386	701	70	35	150	1173
C2..24	355	1365	465	37.5	515	800	450	605	33	426	781	87.5	35	150	1287
C2..25	400	1505	510	37.5	535	900	500	625	33	474	874	80	35	150	1432
C2..26	450	1710	580	45	600	1010	560	700	39	532	982	100	45	175	1614

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

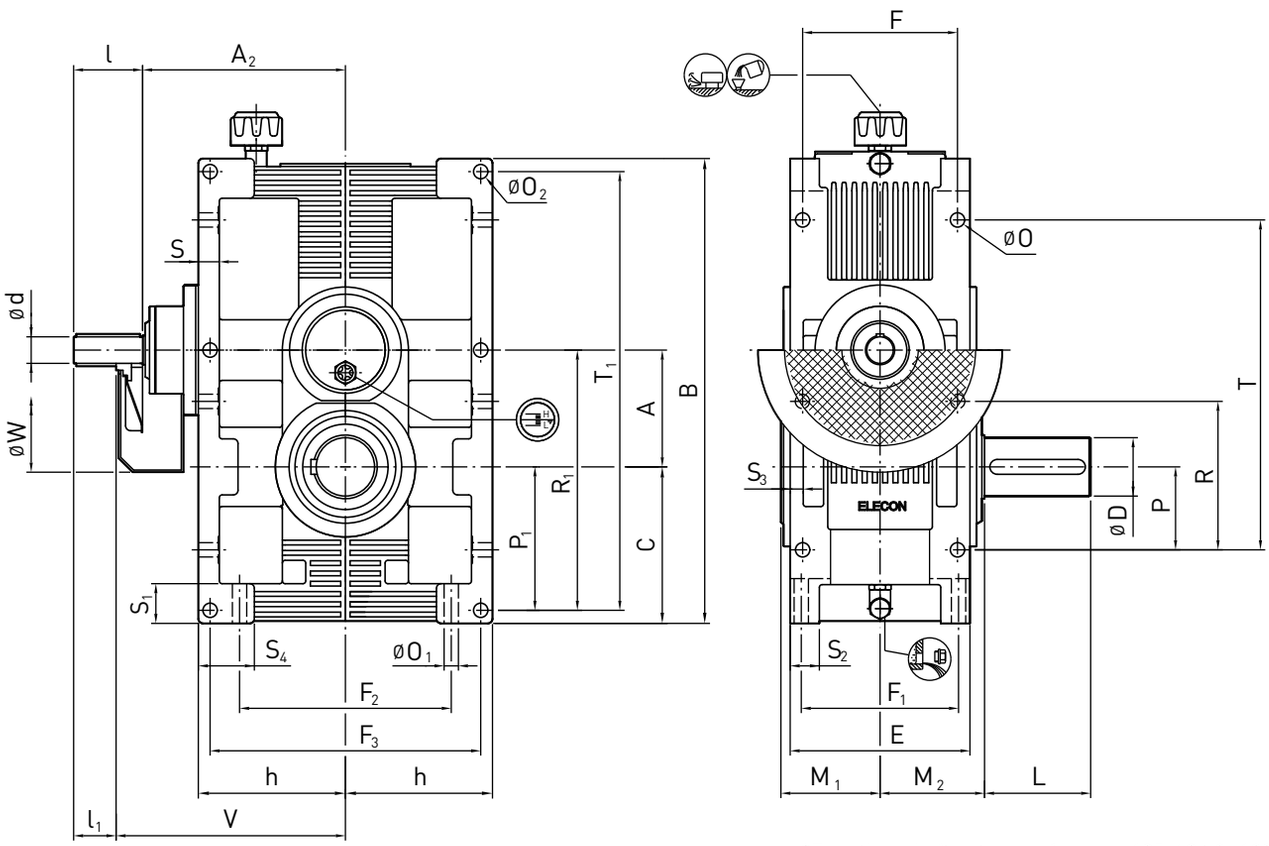
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Type - C20

Over Driven

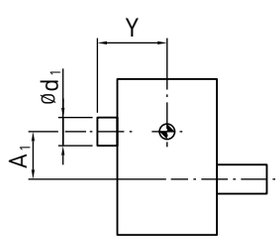
Compact Drive Gear Units

Double Stage
Size 11 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5-12.5 i = 5.6-14 i = 6.3-16 d	l	l_1	Input Shaft i = 14-18 i = 16-20 i = 18-22.4 d	l	l_1	A_2	V	W	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
C2..11	19	90	40	19	90	40	On Request		210	32	55	94	105	80	95	180	40	-
C2..13	24	100	50	24	100	50			270	45	95	106	115	100	105	190	75	-
C2..15	32	110	60	28	100	50			300	55	95	127	135	125	140	255	135	-
C2..17	42	130	80	38	110	60			360	70	135	141	150	160	175	255	250	-
C2..18	48	130	80	42	130	80			360	80	160	158	170	180	190	305	330	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
C2..11	80	356	140	180	150	105	100	160	100	14	14	14	50	124	95		24	50		14	66	215	324
C2..13	100	435	155	190	150	130	150	210	125	14	14	14	65	140	120		24	50		15	66	270	406
C2..15	125	520	182	228	170	170	210	270	160	14	14	14	95	165	170	290	24	52	45	15	70	355	486
C2..17	160	640	220	250	210	210	260	350	200	18	18	18	115	202	210	362	32	60	40	20	90	440	604
C2..18	180	716	246	284	230	230	310	400	225	18	18	18	135	224	240	404	32	66	45	20	90	505	672

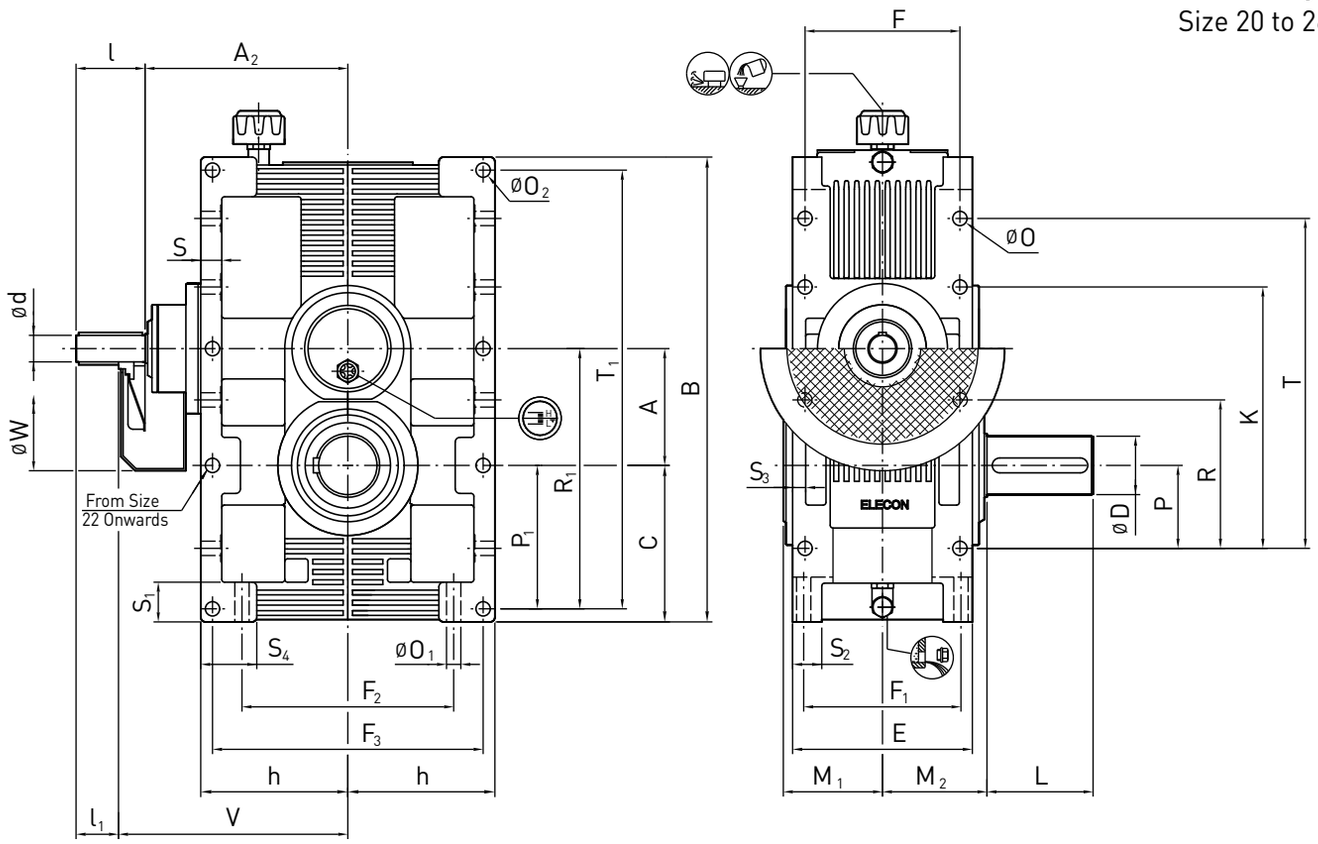
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Compact Drive Gear Units — Over Driven

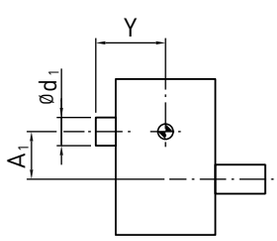
Type - C20

Double Stage
Size 20 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5-12.5 / i = 5.6-14 / i = 6.3-16			Input Shaft i = 14-18 / i = 16-20 / i = 18-22.4						Output Shaft				Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	A_2	V	W	D	L	M_1	M_2	A_1	d_1 [1]	Y [1]		
C2..20	58	135	85	52	135	85	On Request		460	100	200	176	200	225	210	305	595	-
C2..21	65	155	105	65	155	105			530	110	200	210	220	250	245	390	795	-
C2..22	70	155	105	70	155	105			550	120	210	220	230	280	290	390	1080	-
C2..23	85	180	130	80	180	130			550	140	250	234	260	315	290	390	1455	-
C2..24	90	180	130	90	180	130			650	160	290	283	295	355	310	470	1960	-
C2..25	100	220	170	100	220	170			700	170	300	293	305	400	310	470	2650	-
C2..26	110	220	170	110	220	170			700	190	350	306	345	450	400	470	3570	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	K	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
C2..20	225	893	303	314	270	270	400	500	280		23	23	23	165	276	290	501	36	78	45	24	105	635	839
C2..21	250	995	335	385	310	310	440	570	315		27	27	27	180	305	315	555	45	85	65	28	120	705	935
C2..22	280	1095	370	400	340	340	520	640	355		27	27	27	200	339	355	619	45	90	60	28	120	785	1033
C2..23	315	1250	425	450	380	380	570	720	400		33	33	33	220	386	405	701	55	110	70	35	150	875	1173
C2..24	355	1365	465	515	410	410	670	800	450		33	33	33	245	426	450	781	55	110	87.5	35	150	975	1287
C2..25	400	1505	510	535	460	460	770	900	500		33	33	33	280	474	510	874	55	110	80	35	150	1105	1432
C2..26	450	1710	580	600	510	510	850	1010	560	940	39	39	39	315	532	575	982	65	130	100	45	175	1245	1614

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

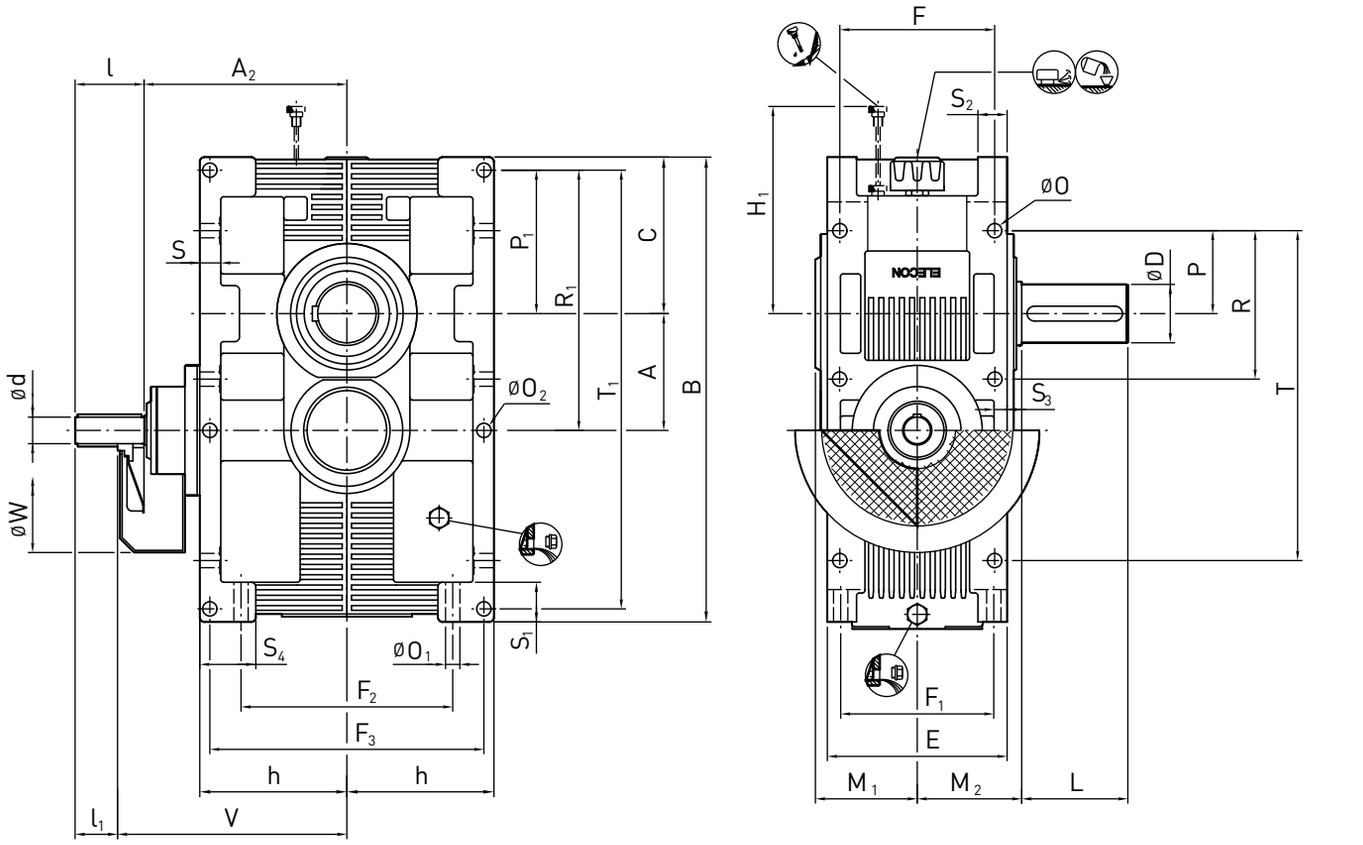
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Type - C2U

Under Driven

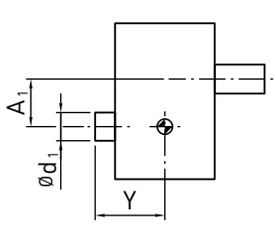
Compact Drive Gear Units

Double Stage
Size 11 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5-12.5 / i = 5.6-14 / i = 6.3-16			Input Shaft i = 14-18 / i = 16-20 / i = 18-22.4						Output Shaft				Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	A_2	V	W	D	L	M_1	M_2	A_1	d_1 1)	Y 1)		
C2..11	19	90	40	19	90	40	On Request		210	32	55	94	105	80	95	180	40	-
C2..13	24	100	50	24	100	50			270	45	95	106	115	100	105	190	75	-
C2..15	32	110	60	28	100	50			300	55	95	127	135	125	140	255	135	-
C2..17	42	130	80	38	110	60			360	70	135	141	150	160	175	255	250	-
C2..18	48	130	80	42	130	80			360	80	160	158	170	180	190	305	330	-



Size	Foundation																					
	A	B	C	E	F	F_1	F_2	F_3	h	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
C2..11	80	356	140	180	150	105	100	160	100	14	14	14	50	124	95		24	50		14	66	215	324
C2..13	100	435	155	190	150	130	150	210	125	14	14	14	65	140	120		24	50		15	66	270	406
C2..15	125	520	182	228	170	170	210	270	160	14	14	14	95	165	170	290	24	52	45	15	70	355	486
C2..17	160	640	220	250	210	210	260	350	200	18	18	18	115	202	210	362	32	60	40	20	90	440	604
C2..18	180	716	246	284	230	230	310	400	225	18	18	18	135	224	240	404	32	66	45	20	90	505	672

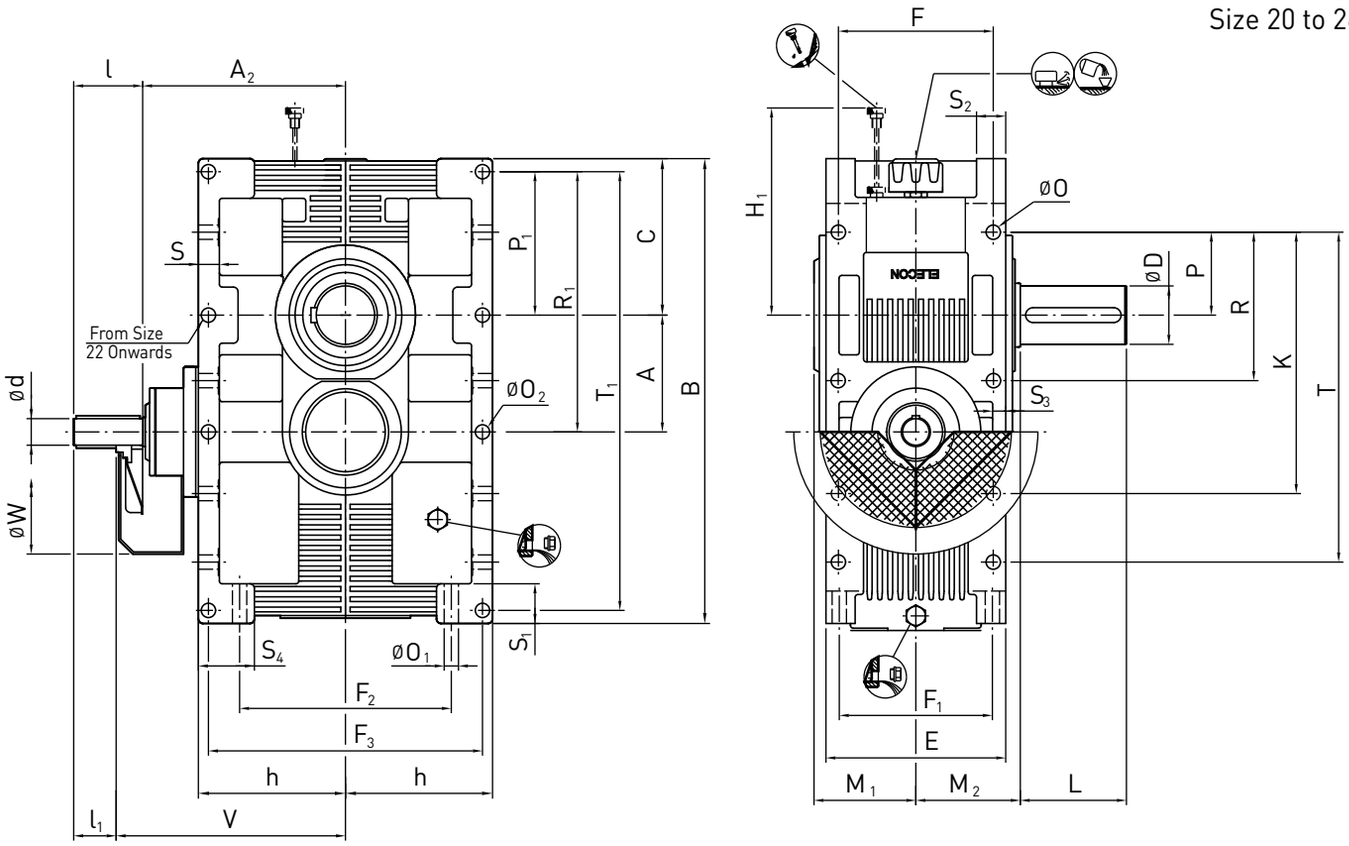
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Compact Drive Gear Units — Under Driven

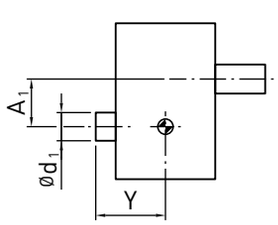
Type - C2U

Double Stage
Size 20 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 5-12.5 / i = 5.6-14 / i = 6.3-16 d	l	l_1	Input Shaft i = 14-18 / i = 16-20 / i = 18-22.4 d	l	l_1	A_2	V	W	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
C2..20	58	135	85	52	135	85	On Request		460	100	200	176	200	225	210	305	595	-
C2..21	65	155	105	65	155	105			530	110	200	210	220	250	245	390	795	-
C2..22	70	155	105	70	155	105			550	120	210	220	230	280	290	390	1080	-
C2..23	85	180	130	80	180	130			550	140	250	234	260	315	290	390	1455	-
C2..24	90	180	130	90	180	130			650	160	290	283	295	355	310	470	1960	-
C2..25	100	220	170	100	220	170			700	170	300	293	305	400	310	470	2650	-
C2..26	110	220	170	110	220	170			700	190	350	306	345	450	400	470	3570	-



Size	Foundation A	B	C	E	F	F_1	F_2	F_3	h	K	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
C2..20	225	893	303	314	270	270	400	500	280		23	23	23	165	276	290	501	36	78	45	24	105	635	839
C2..21	250	995	335	385	310	310	440	570	315		27	27	27	180	305	315	555	45	85	65	28	120	705	935
C2..22	280	1095	370	400	340	340	520	640	355		27	27	27	200	339	355	619	45	90	60	28	120	785	1033
C2..23	315	1250	425	450	380	380	570	720	400		33	33	33	220	386	405	701	55	110	70	35	150	875	1173
C2..24	355	1365	465	515	410	410	670	800	450		33	33	33	245	426	450	781	55	110	87.5	35	150	975	1287
C2..25	400	1505	510	535	460	460	770	900	500		33	33	33	280	474	510	874	55	110	80	35	150	1105	1432
C2..26	450	1710	580	600	510	510	850	1010	560	940	39	39	39	315	532	575	982	65	130	100	45	175	1245	1614

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

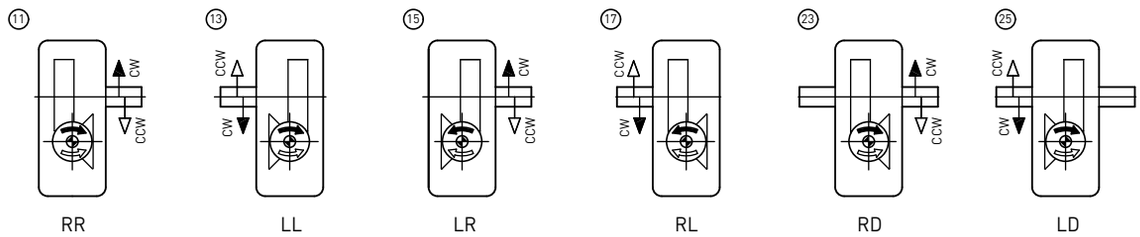
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

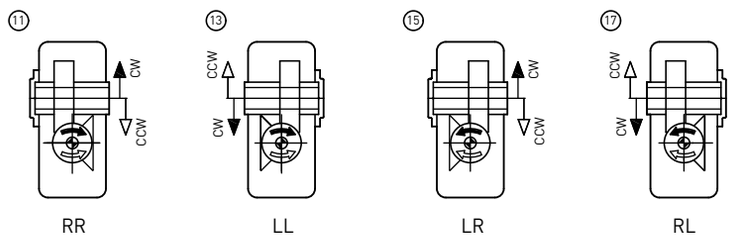
Type - **C2**

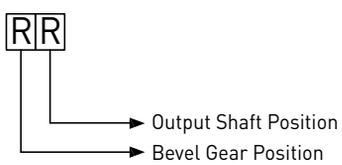
Double Stage

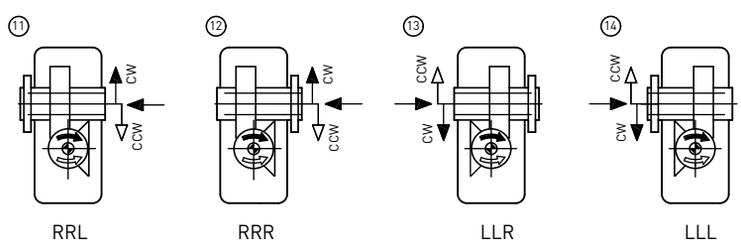
Shaft Arrangement

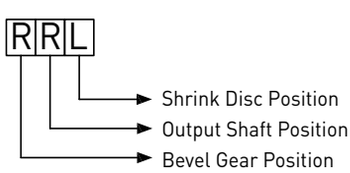
Compact Drive Gear Units

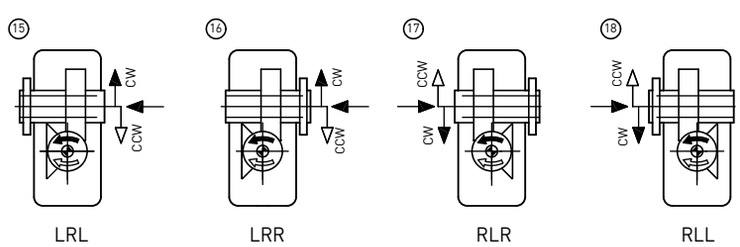








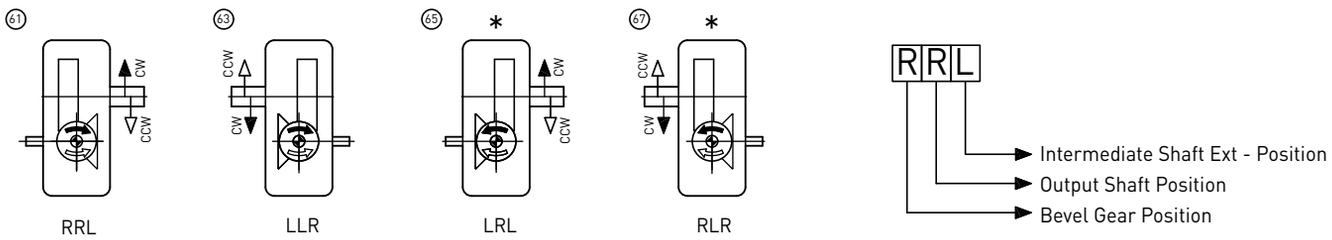


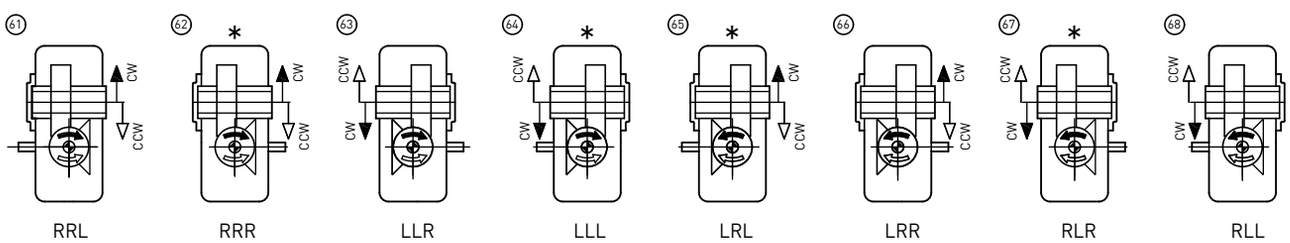


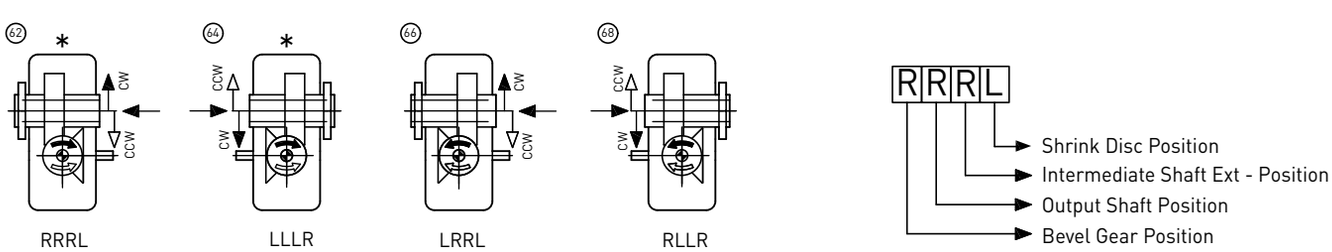
Compact Drive Gear Units

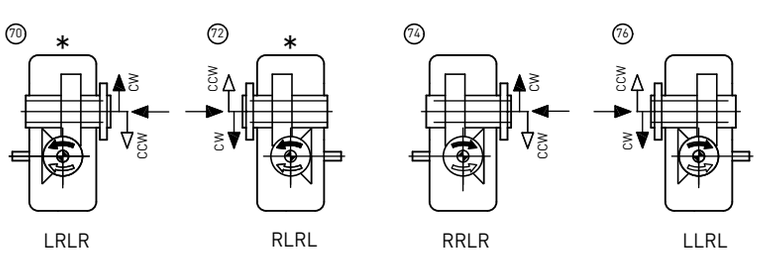
Shaft Arrangement - Int. Ext.

Type - **C2**
Double Stage







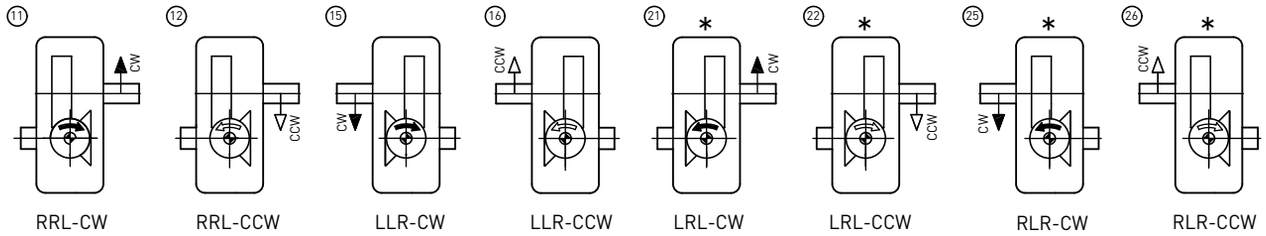


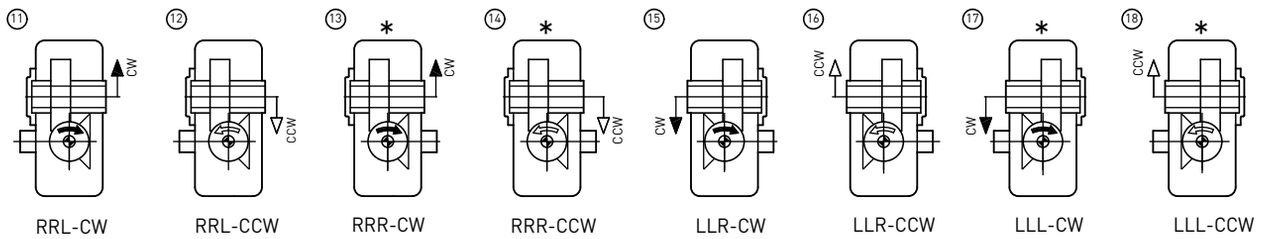
Type - **C2**

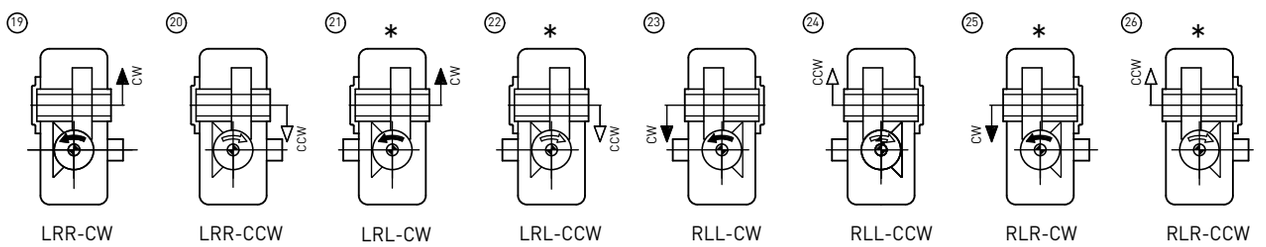
Double Stage

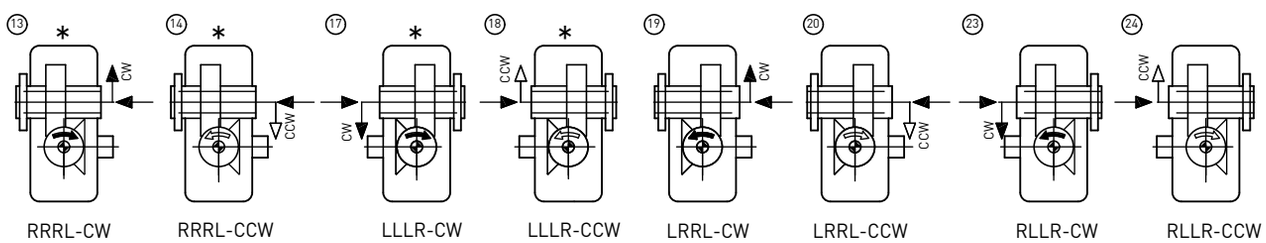
Shaft Arrangement

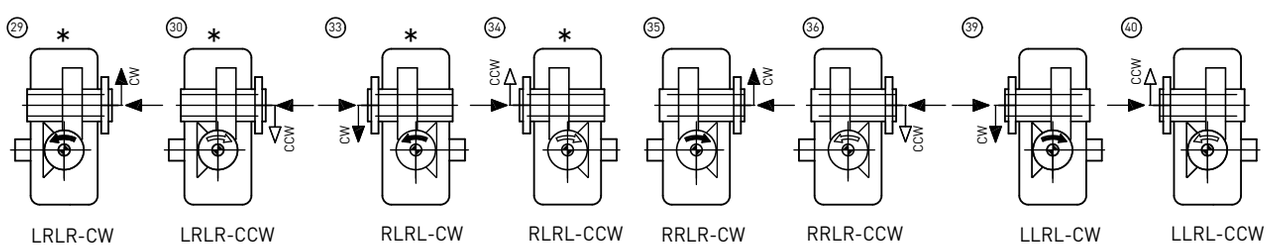
Compact Drive Gear Units

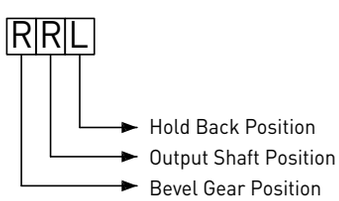


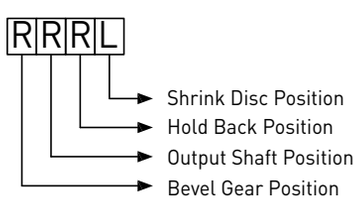






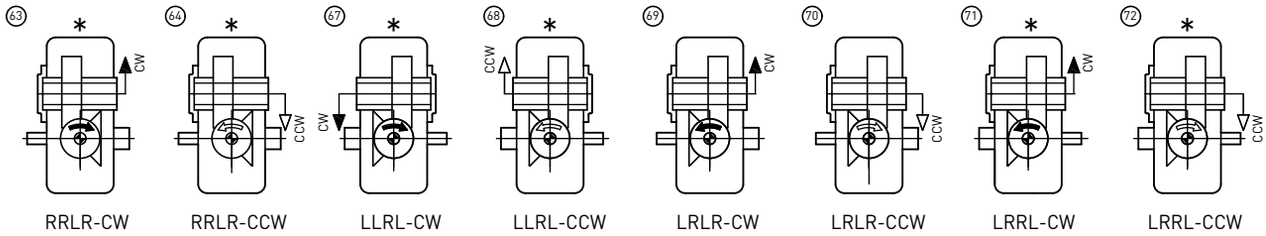


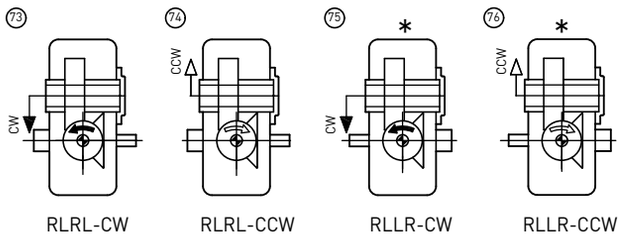




Compact Drive Gear Units — Shaft Arrangement - Int. Ext. & Hold Back — Type - **C2**

Double Stage



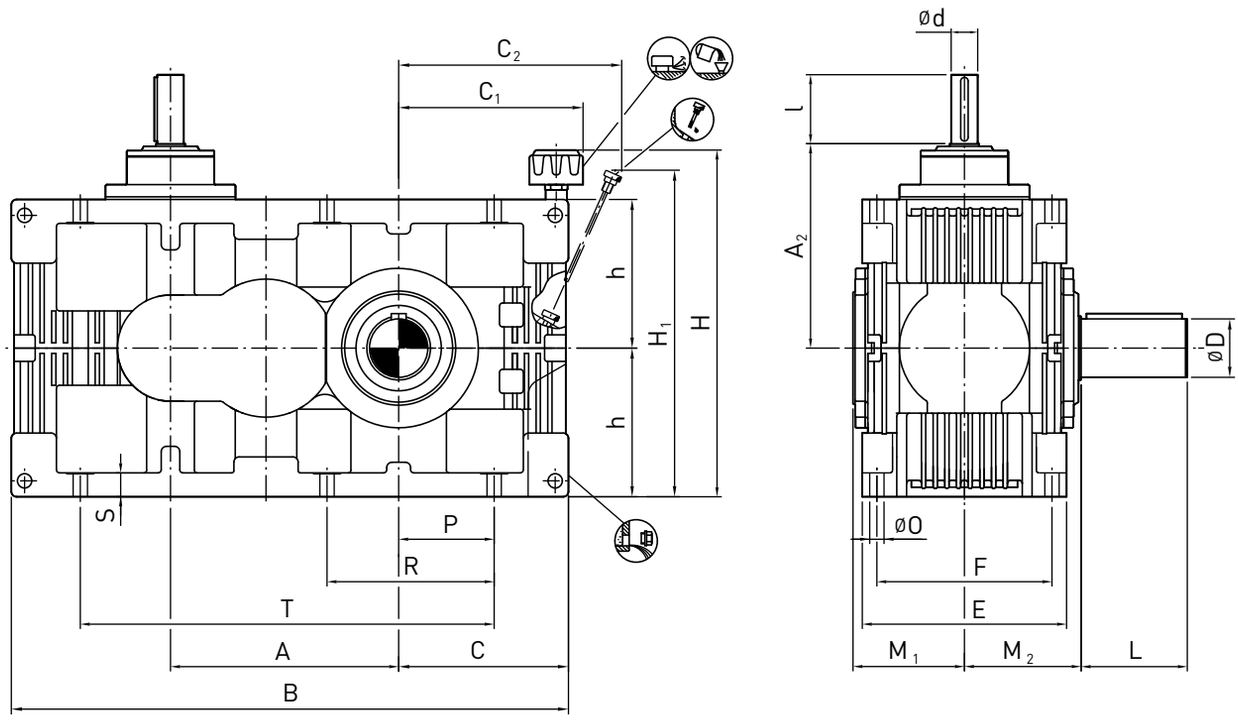


Type - C3H

Horizontal Mounting

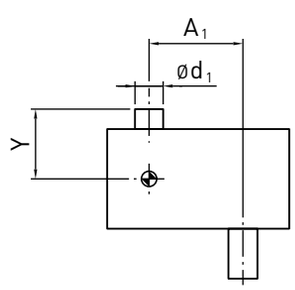
Compact Drive Gear Units

Triple Stage
Size 14 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 20-50 i = 22.4-63 i = 25-71 d	l	Input Shaft i = 56-71 i = 71-90 i = 80-100 d	l	A_2	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
C3..14	19	90	19	90	195	48	95	106	125	190	90	180	105	3.5-
C3..15	24	100	24	100	205	55	95	127	135	215	95	215	145	4.5-
C3..16	24	100	24	100	240	60	130	133	145	240	95	215	195	6.5-
C3..17	28	100	24	100	260	70	135	141	150	270	95	215	265	9 -
C3..18	32	110	28	100	290	80	160	158	170	305	140	265	355	13 -



Size	Foundation A	B	C	C_1 [2]	C_2 [1]	E	F	h	H_1 [1]	H [2]	O	P	R	S	T
C3..14	190	488	162	198	194	190	150	125	278	330	14	80	140	24	345
C3..15	215	548	177	213	215	228	170	140	306	360	14	95	170	24	395
C3..16	240	615	195	228	231	233	190	160	327	400	14	110	195	24	450
C3..17	270	684	210	238	257	250	210	180	378	440	18	115	210	32	495
C3..18	305	764	236	263	281	284	230	200	404	480	18	135	240	32	565

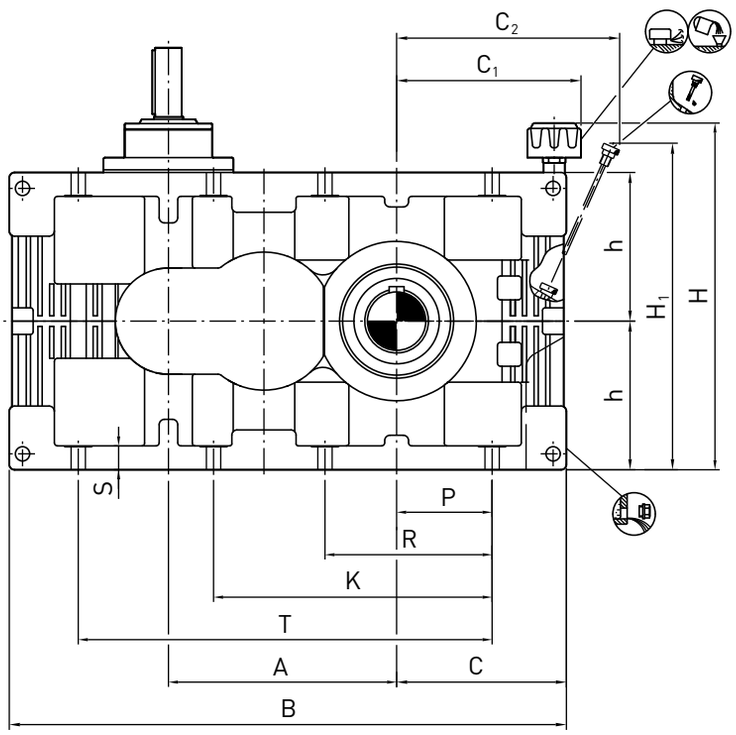
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

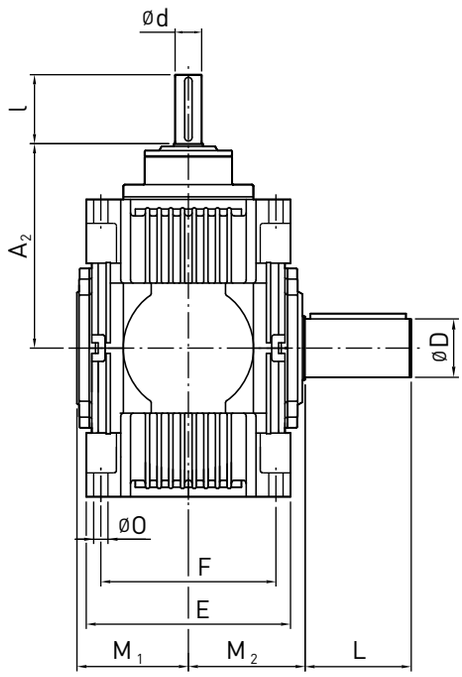
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Compact Drive Gear Units — Horizontal Mounting

Type - C3H

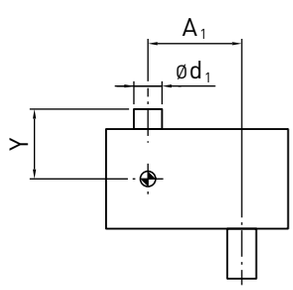
Triple Stage
Size 19 to 26





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 22.4-63 i = 25-71 d	l	Input Shaft i = 71-90 i = 80-100 d	l	A_2	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
C3..19	38	110	32	110	320	90	165	171	180	340	150	265	480	18
C3..20	42	130	38	110	360	100	200	176	200	385	150	265	645	26
C3..21	48	130	42	130	405	110	200	210	220	430	190	340	870	33
C3..22	52	130	48	130	440	120	210	220	230	480	190	340	1170	46
C3..23	58	135	52	130	495	140	250	234	260	540	190	340	1590	65
C3..24	65	155	65	155	540	160	290	283	295	605	245	440	2145	90
C3..25	70	155	70	155	595	170	300	293	305	680	245	440	2895	125
C3..26	85	180	80	180	660	190	350	306	345	765	245	440	3885	180



Size	Foundation A	B	C	C_1 [2]	C_2 [1]	E	F	h	H_1 [1]	H [2]	K	O	P	R	S	T
C3..19	340	850	265	283	315	303	250	225	455	530		23	145	255	36	615
C3..20	385	945	288	304	345	314	270	250	496	580		23	165	290	36	705
C3..21	430	1050	320	359	394	385	310	280	572	650		27	180	315	45	780
C3..22	480	1170	355	390	429	400	340	315	635	720		27	200	355	45	880
C3..23	540	1335	405	422	481	450	380	355	705	800	655	33	220	405	55	985
C3..24	605	1465	435	452	541	515	410	400	795	890	740	33	245	450	55	1110
C3..25	680	1605	475	493	591	535	460	450	865	990	840	33	280	510	55	1245
C3..26	765	1820	540	553	659	600	510	500	954	1090	940	39	315	575	65	1400

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

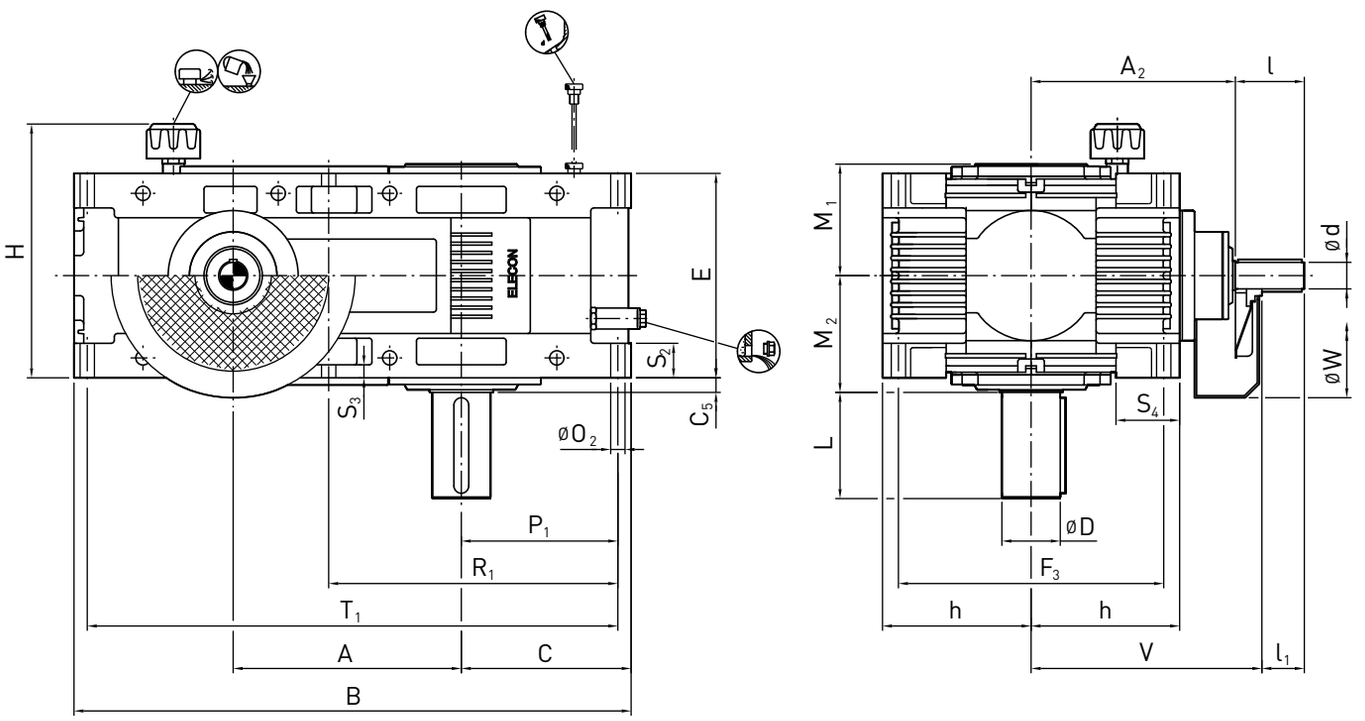
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Type - C3V

Vertical Mounting

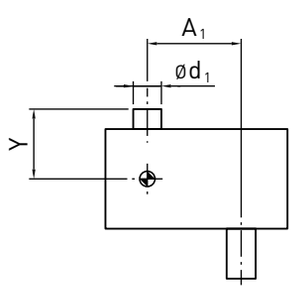
Compact Drive Gear Units

Triple Stage
Size 14 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 20-50 / i = 22.4-63 / i = 25-71			Input Shaft i = 56-71 / i = 71-90 / i = 80-100						Output Shaft				Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	A_2	V	W	D	L	M_1	M_2	A_1	d_1 [1]	Y [1]		
C3..14	19	90	40	19	90	40	195	245	240	48	95	106	125	190	90	180	105	-
C3..15	24	100	50	24	100	50	205	255	270	55	95	127	135	215	95	215	145	-
C3..16	24	100	50	24	100	50	240	290	300	60	130	133	145	240	95	215	195	-
C3..17	28	100	50	24	100	50	260	310	340	70	135	141	150	270	95	215	265	-
C3..18	32	110	60	28	100	50	290	340	360	80	160	158	170	305	140	265	355	-



Size	Foundation														
	A	B	C	C_5	E	F_3	h	H [2]	O 2	P_1	R_1	S_2	S_3	S_4	T_1
C3..14	190	488	162	30	190	200	125	270	14	146	292	36	-	70	456
C3..15	215	548	177	21	228	230	140	308	14	160	285	45	15	70	515
C3..16	240	615	195	28.5	233	270	160	313	14	176	316	38	15	70	578
C3..17	270	684	210	25	250	310	180	330	18	190	350	40	20	95	645
C3..18	305	764	236	28	284	350	200	364	18	215	395	45	20	90	722

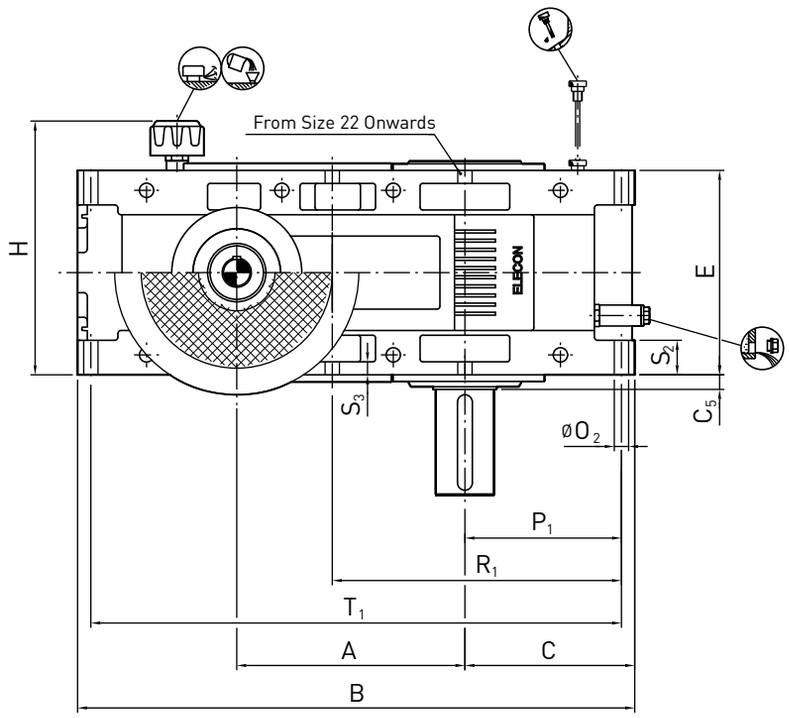
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

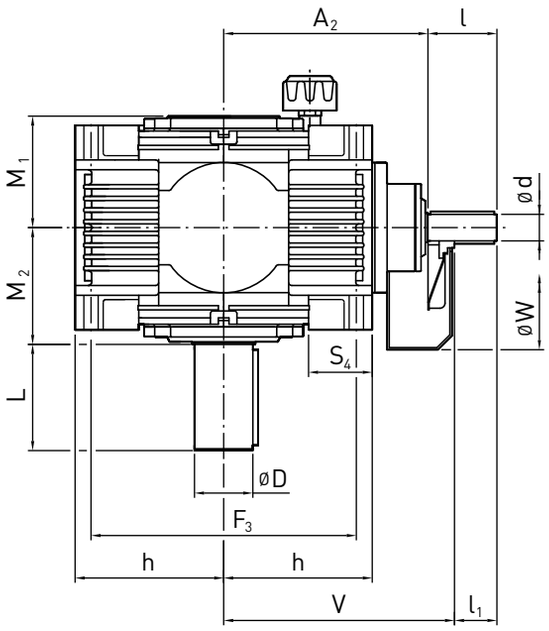
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Compact Drive Gear Units — Vertical Mounting

Type - C3V

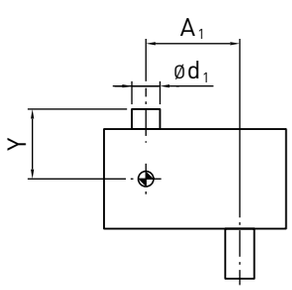
Triple Stage
Size 19 to 26





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft: i = 20-50, i = 22.4-63, i = 25-71			Input Shaft: i = 56-71, i = 71-90, i = 80-100						Output Shaft				Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	A_2	V	W	D	L	M_1	M_2	A_1	d_1 1)	Y 1)		
C3..19	38	110	60	32	110	60	320	370	360	90	165	171	180	340	150	265	480	-
C3..20	42	130	80	38	110	60	360	410	400	100	200	176	200	385	150	265	645	-
C3..21	48	130	80	42	130	80	405	455	460	110	200	210	220	430	190	340	870	-
C3..22	52	130	80	48	130	80	440	490	530	120	210	220	230	480	190	340	1170	-
C3..23	58	135	85	52	130	80	495	545	550	140	250	234	260	540	190	340	1590	-
C3..24	65	155	105	65	155	105	540	590	600	160	290	283	295	605	245	440	2145	-
C3..25	70	155	105	70	155	105	595	645	650	170	300	293	305	680	245	440	2895	-
C3..26	85	180	130	80	180	130	660	710	700	190	350	306	345	765	245	440	3885	-



Size	Foundation														
	A	B	C_5	C	E	F_3	h	H 2)	O_2	P_1	R_1	S_2	S_3	S_4	T_1
C3..19	340	850	28.5	265	303	400	225	383	23	240	440	48.5	22	105	800
C3..20	385	945	43	288	314	440	250	394	23	262	487	45	24	105	893
C3..21	430	1050	27.5	320	385	500	280	475	27	295	545	65	28	120	1000
C3..22	480	1170	30	355	400	560	315	490	27	325	605	60	28	120	1110
C3..23	540	1335	35	405	450	630	355	540	33	370	685	70	35	150	1265
C3..24	605	1465	37.5	435	515	700	400	605	33	398	753	87.5	35	150	1391
C3..25	680	1605	37.5	475	535	800	450	625	33	436	836	80	35	150	1528
C3..26	765	1820	45	540	600	890	500	700	39	495	945	100	45	175	1730

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

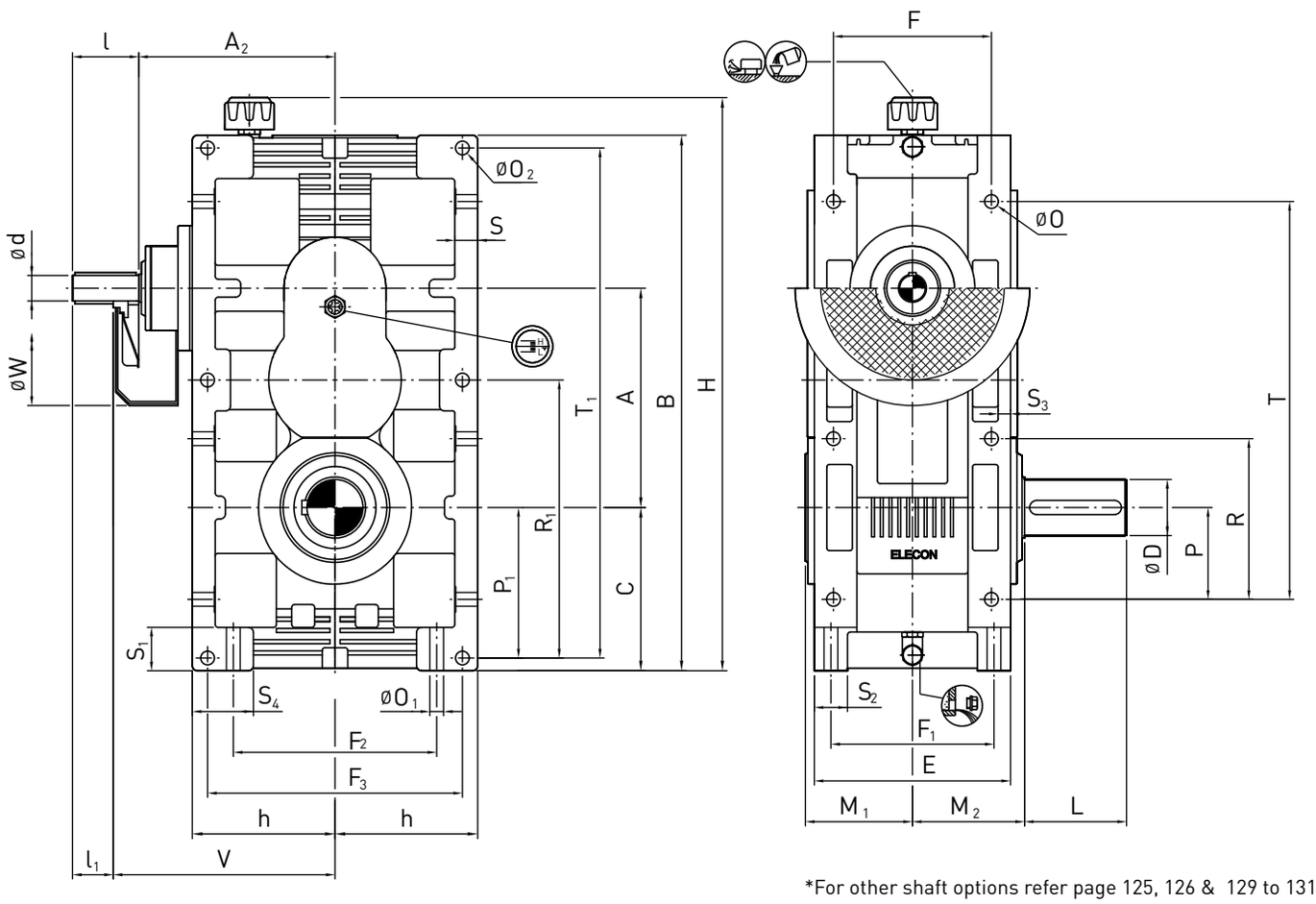
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Type - C30

Over Driven

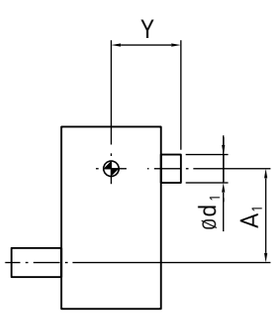
Compact Drive Gear Units

Triple Stage
Size 14 to 18



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 20-50 / i = 22.4-63 / i = 25-71			Input Shaft i = 56-71 / i = 71-90 / i = 80-100						Output Shaft				Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	A_2	V	W	D	L	M_1	M_2	A_1	d_1 [1]	Y [1]		
C3..14	19	90	40	19	90	40	195	245	240	48	95	106	125	190	90	180	105	-
C3..15	24	100	50	24	100	50	205	255	270	55	95	127	135	215	95	215	145	-
C3..16	24	100	50	24	100	50	240	290	300	60	130	133	145	240	95	215	195	-
C3..17	28	100	50	24	100	50	260	310	340	70	135	141	150	270	95	215	265	-
C3..18	32	110	60	28	100	50	290	340	360	80	160	158	170	305	140	265	355	-



Size	Foundation																						
	A	B	C	E	F	F_1	F_2	F_3	h	H	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
C3..14	190	488	162	190	150	150	140	200	125	568	14	14	14	80	146	140	292	24	52	36	15	70	345	456
C3..15	215	548	177	228	170	170	170	230	140	628	14	14	14	95	160	170	285	24	52	45	15	70	395	515
C3..16	240	615	195	233	190	190	210	270	160	695	14	14	14	110	176	195	316	24	55	38	15	70	450	578
C3..17	270	684	210	250	210	210	220	310	180	764	18	18	18	115	190	210	350	32	60	40	20	95	495	645
C3..18	305	764	236	284	230	230	260	350	200	844	18	18	18	135	215	240	395	32	66	45	20	90	565	722

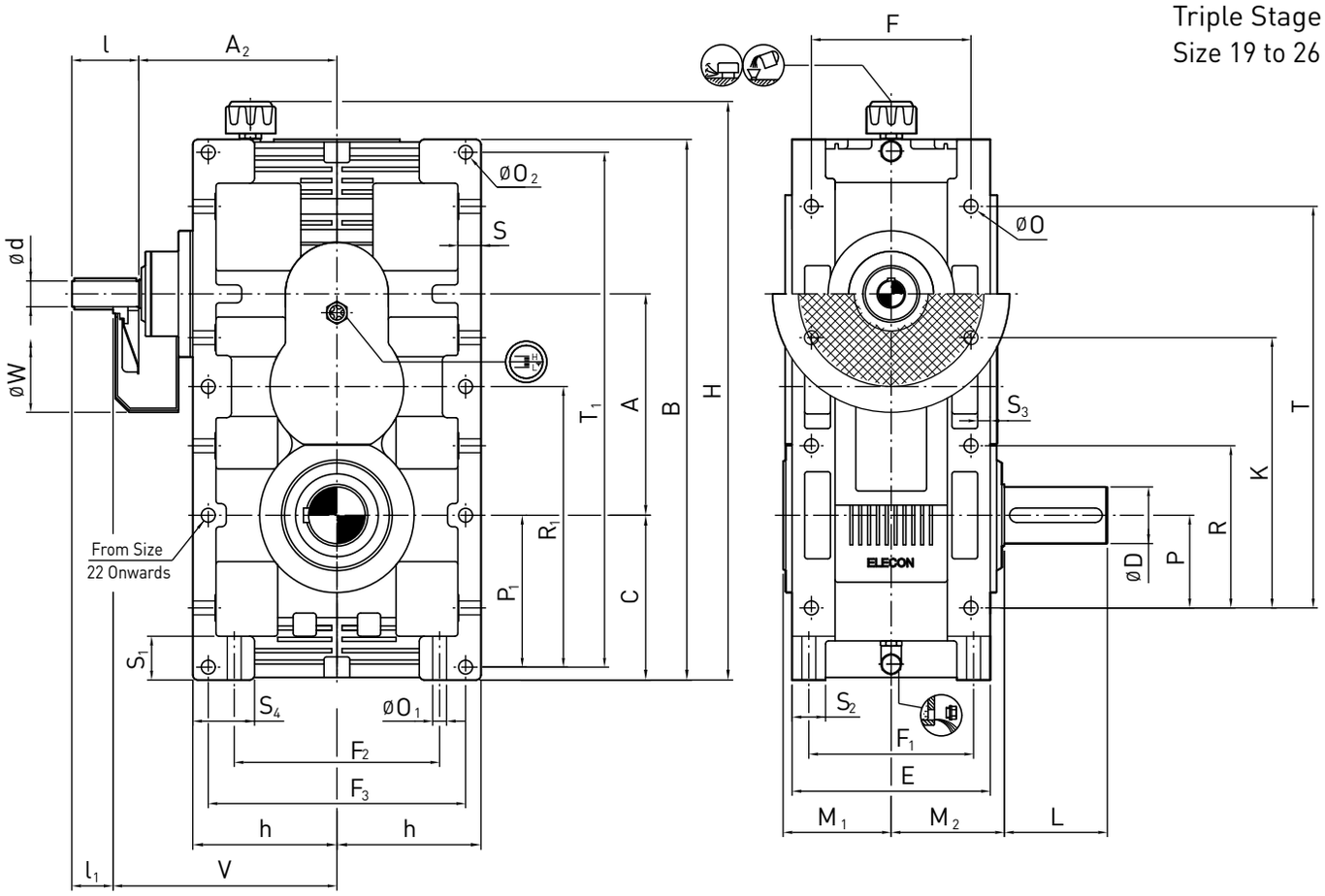
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Compact Drive Gear Units — Over Driven

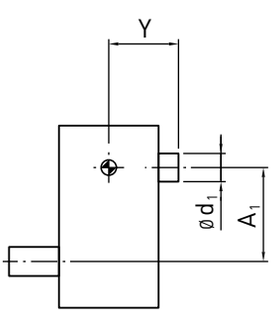
Type - C30

Triple Stage
Size 19 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 20-50 / i = 22.4-63 / i = 25-71			Input Shaft i = 56-71 / i = 71-90 / i = 80-100						Output Shaft				Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	A_2	V	W	D	L	M_1	M_2	A_1	d_1 1)	Y 1)		
C3..19	38	110	60	32	110	60	320	370	360	90	165	171	180	340	150	265	480	-
C3..20	42	130	80	38	110	60	360	410	400	100	200	176	200	385	150	265	645	-
C3..21	48	130	80	42	130	80	405	455	460	110	200	210	220	430	190	340	870	-
C3..22	52	130	80	48	130	80	440	490	530	120	210	220	230	480	190	340	1170	-
C3..23	58	135	85	52	130	80	495	545	550	140	250	234	260	540	190	340	1590	-
C3..24	65	155	105	65	155	105	540	590	600	160	290	283	295	605	245	440	2145	-
C3..25	70	155	105	70	155	105	595	645	650	170	300	293	305	680	245	440	2895	-
C3..26	85	180	130	80	180	130	660	710	700	190	350	306	345	765	245	440	3885	-



Size	Foundation																								
	A	B	C	E	F	F_1	F_2	F_3	h	H	K	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
C3..19	340	850	265	303	250	250	290	400	225	930		23	23	23	145	240	255	440	36	75	48.5	22	105	615	800
C3..20	385	945	288	314	270	270	340	440	250	1025		23	23	23	165	262	290	487	36	78	45	24	105	705	893
C3..21	430	1050	320	385	310	310	370	500	280	1140		27	27	27	180	295	315	545	45	85	65	28	120	780	1000
C3..22	480	1170	355	400	340	340	440	560	315	1260		27	27	27	200	325	355	605	45	90	60	28	120	880	1110
C3..23	540	1335	405	450	380	380	480	630	355	1425	655	33	33	33	220	370	405	685	55	110	70	35	150	985	1265
C3..24	605	1465	435	515	410	410	570	700	400	1555	740	33	33	33	245	398	450	753	55	110	87.5	35	150	1110	1391
C3..25	680	1605	475	535	460	460	670	800	450	1695	840	33	33	33	280	436	510	836	55	110	80	35	150	1245	1528
C3..26	765	1820	540	600	510	510	730	890	500	1910	940	39	39	39	315	495	575	945	65	130	100	45	175	1400	1730

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

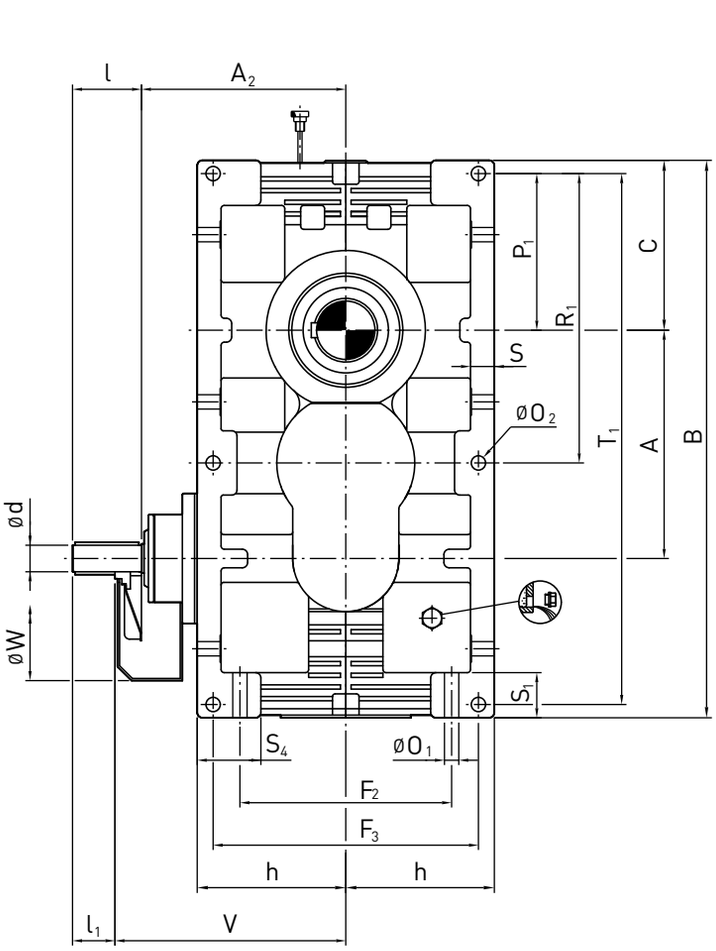
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

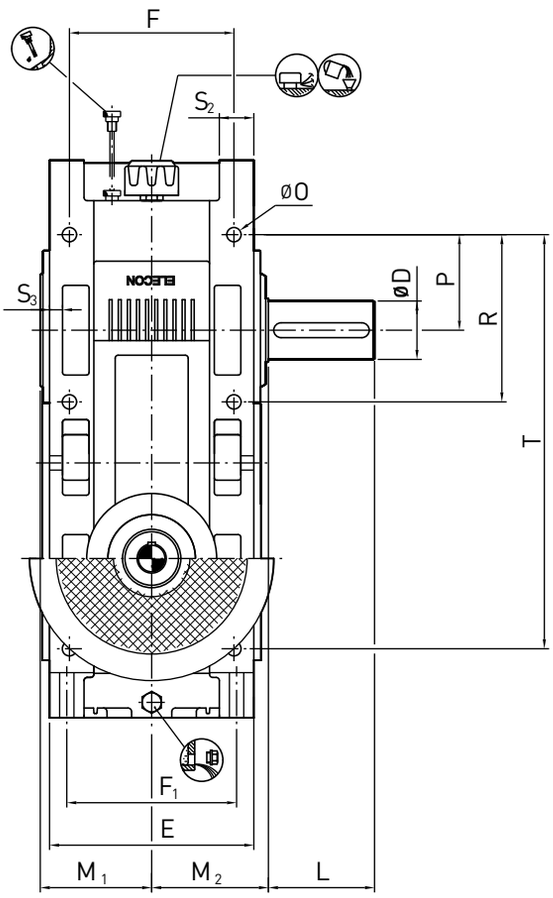
Type - C3U

Under Driven

Compact Drive Gear Units

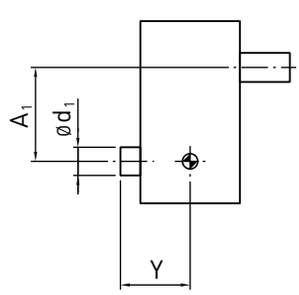
Triple Stage
Size 14 to 18





*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 20-50 i = 22.4-63 i = 25-71			Input Shaft i = 56-71 i = 71-90 i = 80-100						Output Shaft				Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	A_2	V	W	D	L	M_1	M_2	A_1	d_1 1)	Y 1)		
C3..14	19	90	40	19	90	40	195	245	240	48	95	106	125	190	90	180	105	-
C3..15	24	100	50	24	100	50	205	255	270	55	95	127	135	215	95	215	145	-
C3..16	24	100	50	24	100	50	240	290	300	60	130	133	145	240	95	215	195	-
C3..17	28	100	50	24	100	50	260	310	340	70	135	141	150	270	95	215	265	-
C3..18	32	110	60	28	100	50	290	340	360	80	160	158	170	305	140	265	355	-



Size	Foundation																					
	A	B	C	E	F	F_1	F_2	F_3	h	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
C3..14	190	488	162	190	150	150	140	200	125	14	14	14	80	146	140	292	24	52	36	15	70	310	456
C3..15	215	548	177	228	170	170	170	230	140	14	14	14	95	160	170	285	24	52	45	15	70	395	515
C3..16	240	615	195	233	190	190	210	270	160	14	14	14	110	176	195	316	24	55	38	15	70	450	578
C3..17	270	684	210	250	210	210	220	310	180	18	18	18	115	190	210	350	32	60	40	20	95	495	645
C3..18	305	764	236	284	230	230	260	350	200	18	18	18	135	215	240	395	32	66	45	20	90	565	722

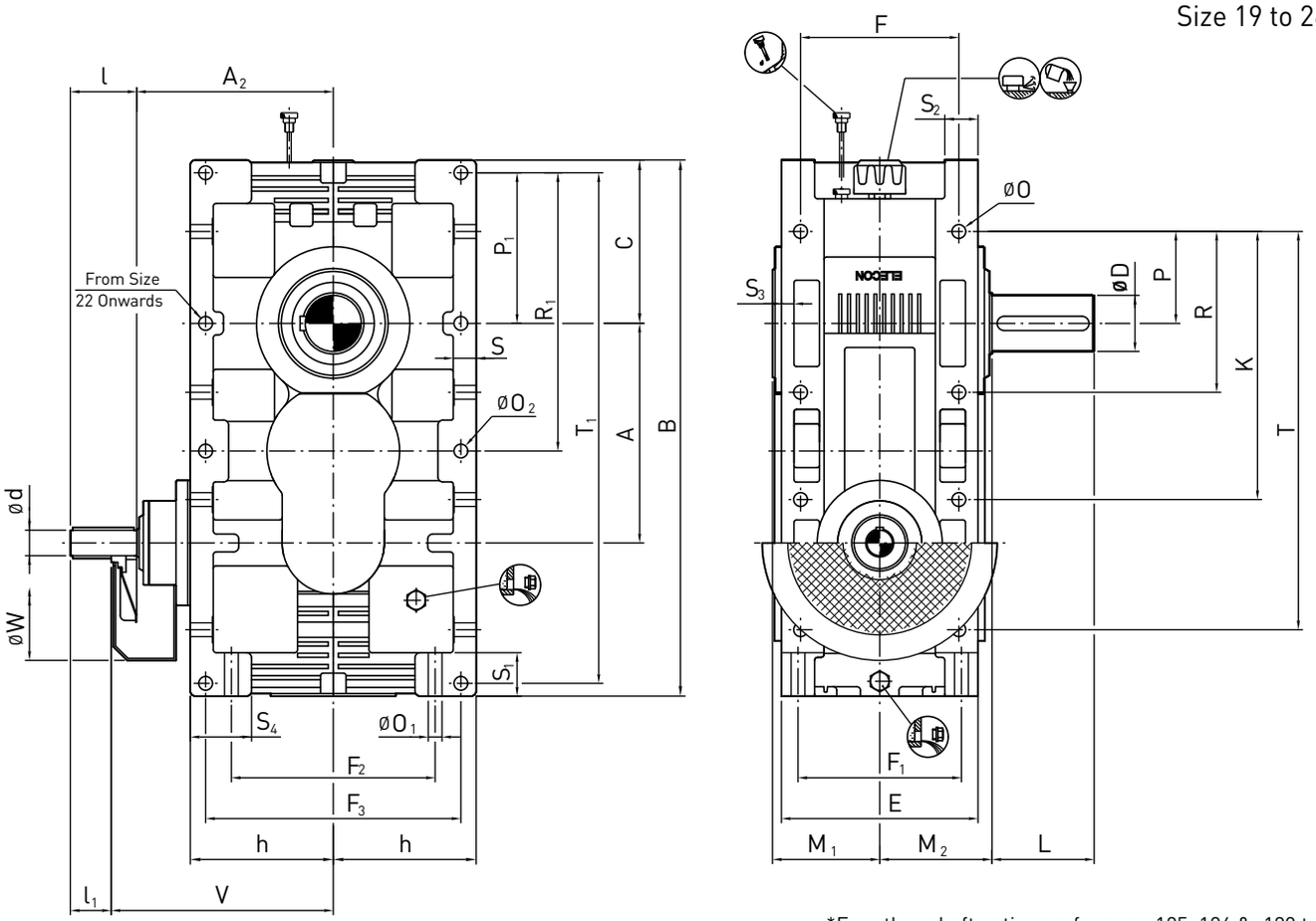
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Compact Drive Gear Units — Under Driven

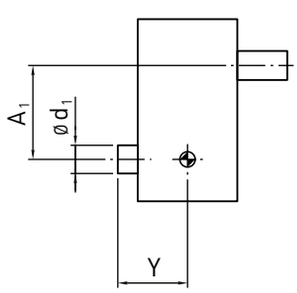
Type - C3U

Triple Stage
Size 19 to 26



*For other shaft options refer page 125, 126 & 129 to 131

Size	Input Shaft i = 20-50 / i = 22.4-63 / i = 25-71			Input Shaft i = 56-71 / i = 71-90 / i = 80-100						Output Shaft				Backstop			Average Weight [kg]	Oil Quantity [Litres]
	d	l	l_1	d	l	l_1	A_2	V	W	D	L	M_1	M_2	A_1	d_1 [1]	Y [1]		
C3..19	38	110	60	32	110	60	320	370	360	90	165	171	180	340	150	265	480	-
C3..20	42	130	80	38	110	60	360	410	400	100	200	176	200	385	150	265	645	-
C3..21	48	130	80	42	130	80	405	455	460	110	200	210	220	430	190	340	870	-
C3..22	52	130	80	48	130	80	440	490	530	120	210	220	230	480	190	340	1170	-
C3..23	58	135	85	52	130	80	495	545	550	140	250	234	260	540	190	340	1590	-
C3..24	65	155	105	65	155	105	540	590	600	160	290	283	295	605	245	440	2145	-
C3..25	70	155	105	70	155	105	595	645	650	170	300	293	305	680	245	440	2895	-
C3..26	85	180	130	80	180	130	660	710	700	190	350	306	345	765	245	440	3885	-



Size	Foundation																						
	A	B	C	E	F	F_1	F_2	F_3	h	K	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
C3..19	340	850	265	303	250	250	290	400	225		23	23	23	145	240	255	440	36	75	48.5	22	105	615	800
C3..20	385	945	288	314	270	270	340	440	250		23	23	23	165	262	290	487	36	78	45	24	105	705	893
C3..21	430	1050	320	385	310	310	370	500	280		27	27	27	180	295	315	545	45	85	65	28	120	780	1000
C3..22	480	1170	355	400	340	340	440	560	315		27	27	27	200	325	355	605	45	90	60	28	120	880	1110
C3..23	540	1335	405	450	380	380	480	630	355	655	33	33	33	220	370	405	685	55	110	70	35	150	985	1265
C3..24	605	1465	435	515	410	410	570	700	400	740	33	33	33	245	398	450	753	55	110	87.5	35	150	1110	1391
C3..25	680	1605	475	535	460	460	670	800	450	840	33	33	33	280	436	510	836	55	110	80	35	150	1245	1528
C3..26	765	1820	540	600	510	510	730	890	500	940	39	39	39	315	495	575	945	65	130	100	45	175	1400	1730

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

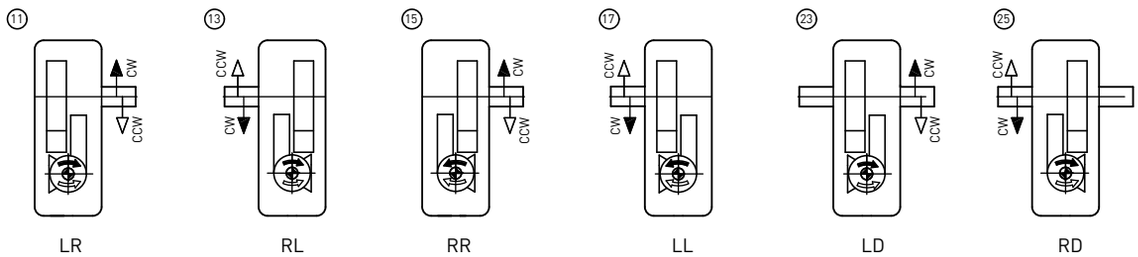
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

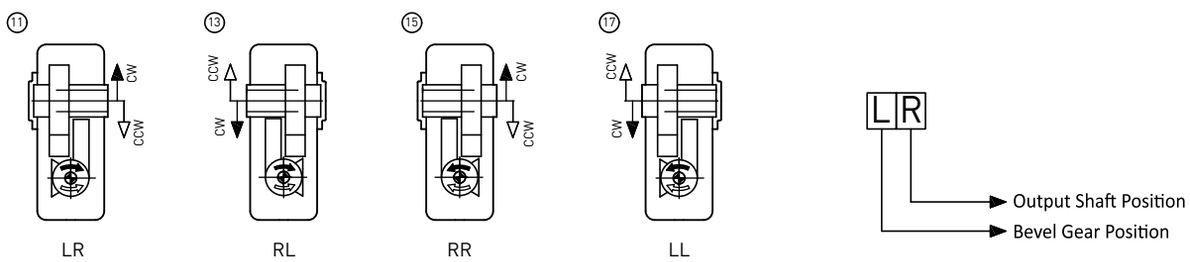
Type - **C3**

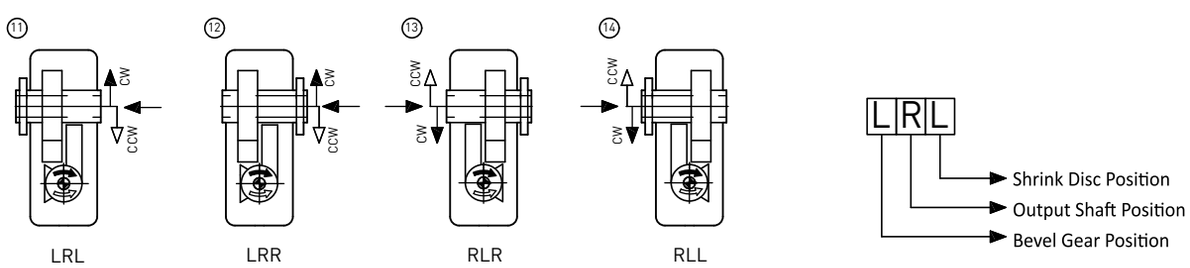
Triple Stage

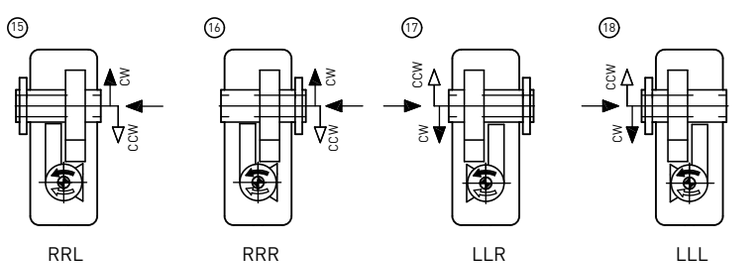
Shaft Arrangement

Compact Drive Gear Units



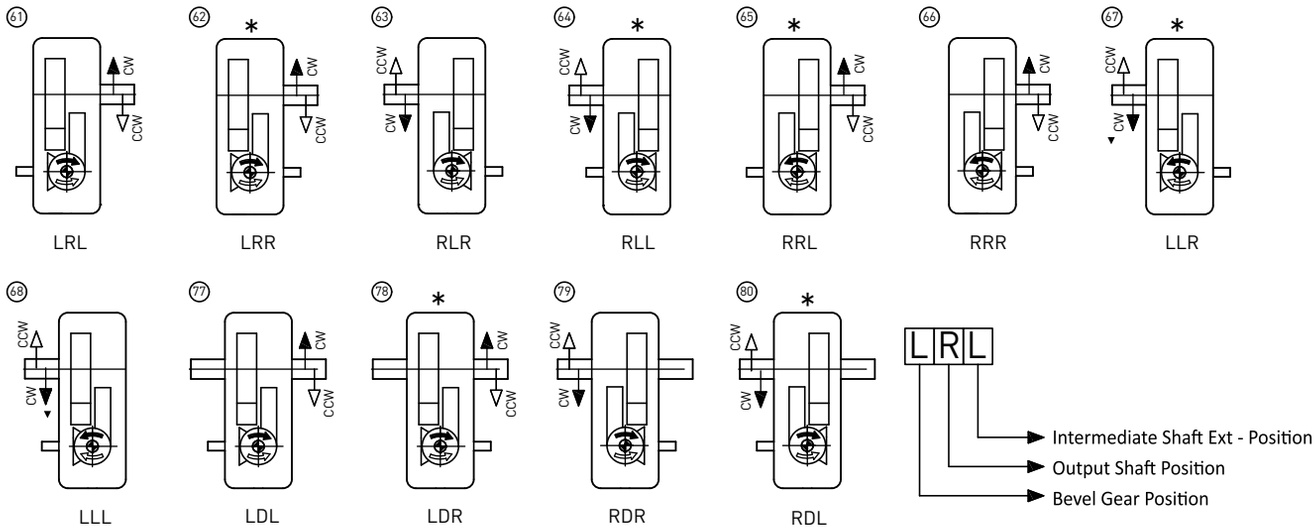


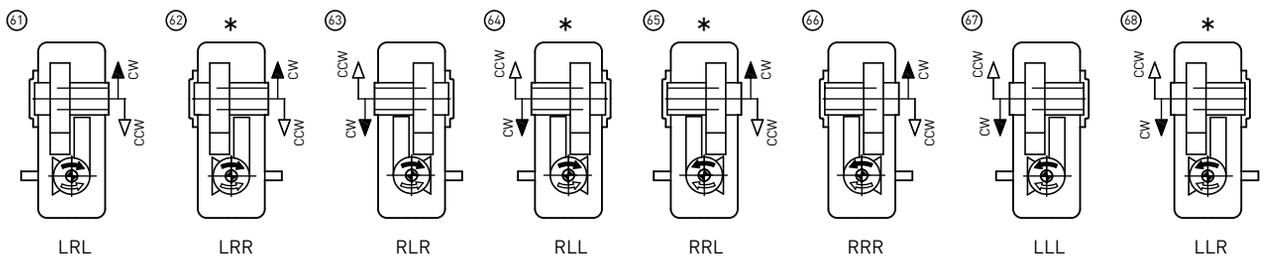


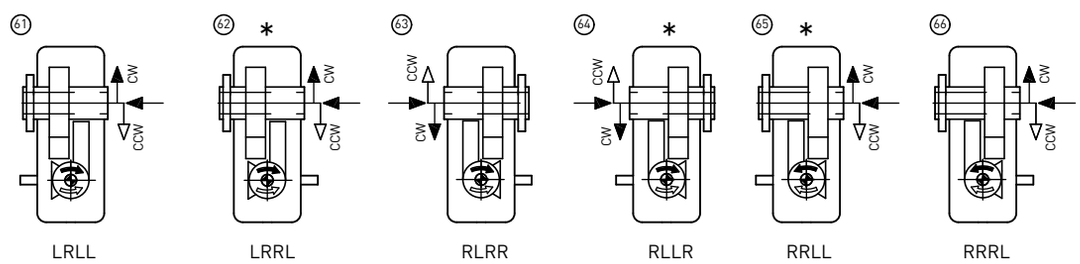


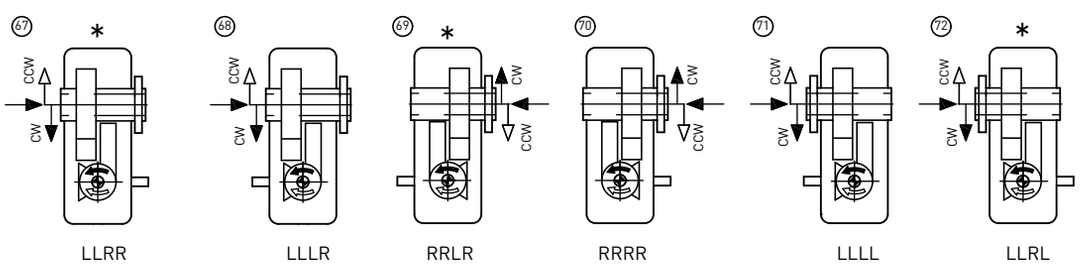
Compact Drive Gear Units — Shaft Arrangement - Int. Ext.

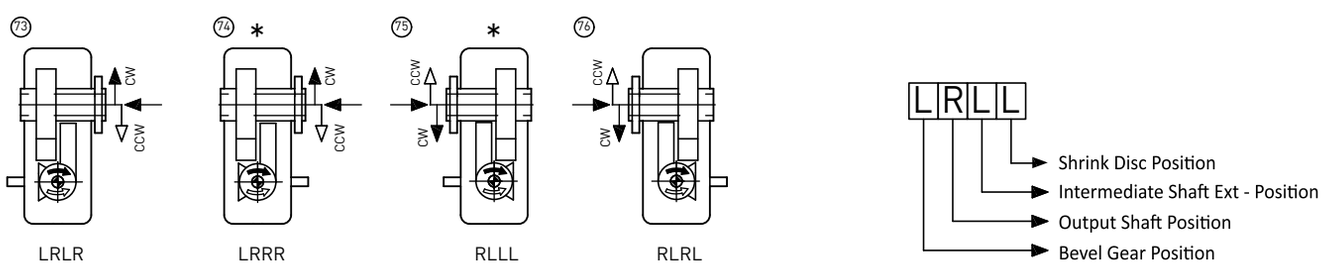
Type - C3
Tripal Stage









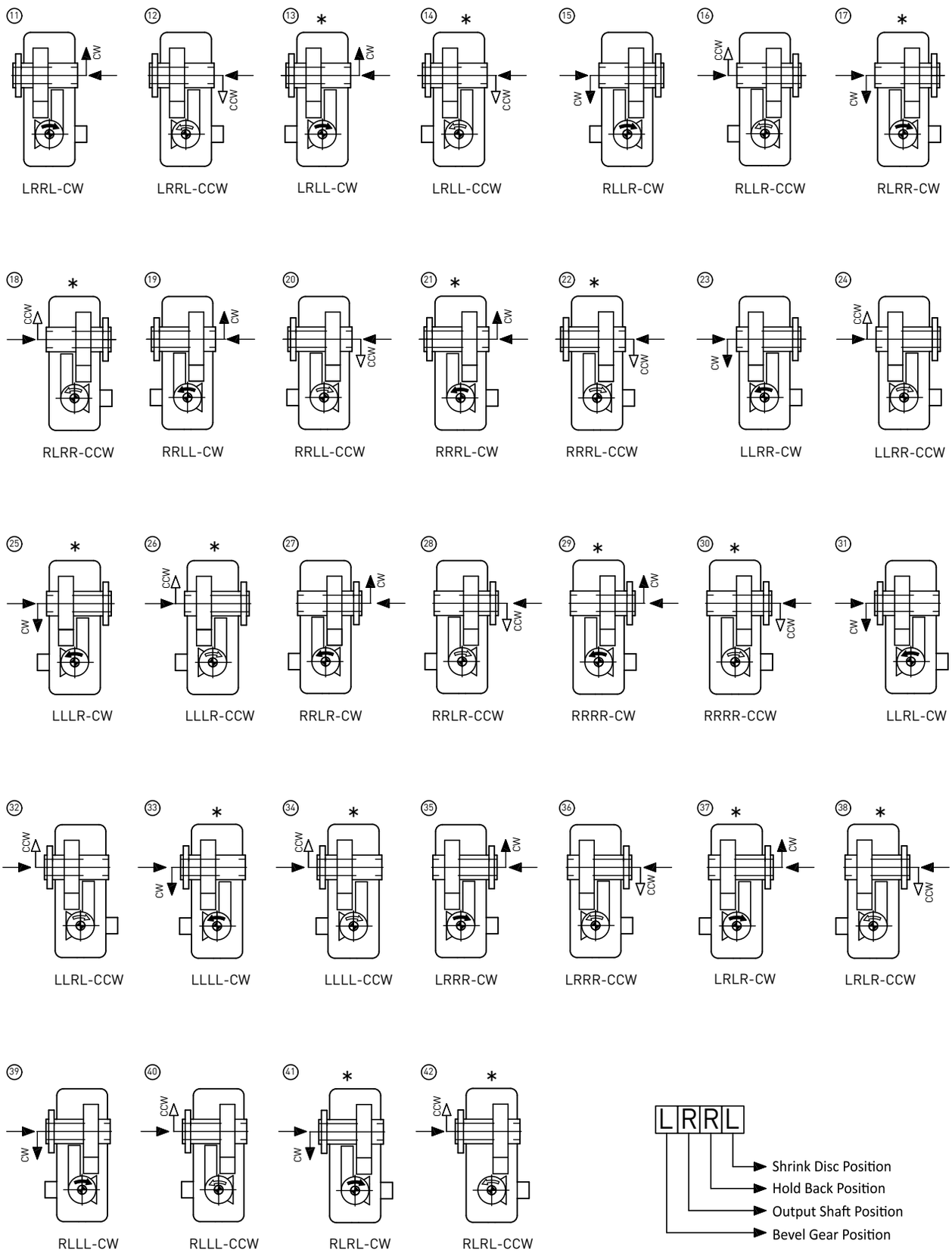


Type - **C3**

Triple Stage

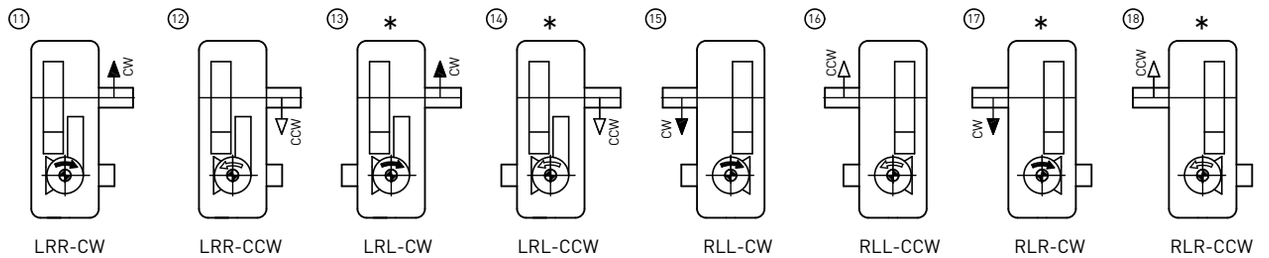
Shaft Arrangement - Hold Back

Compact Drive Gear Units

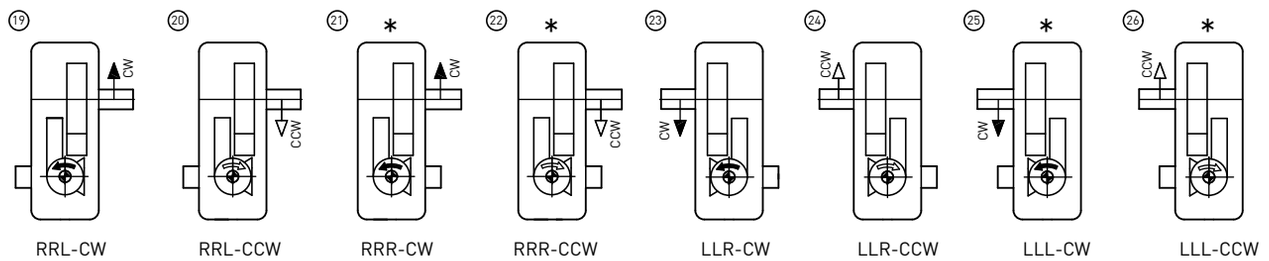


Compact Drive Gear Units Shaft Arrangement - Hold Back

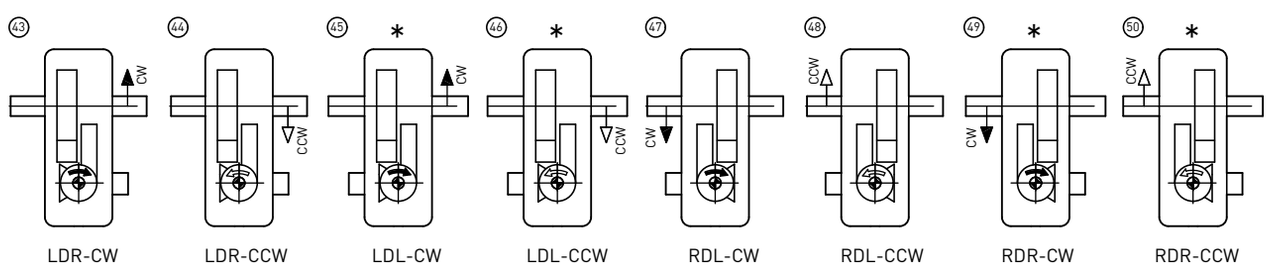
Type - C3
Tripal Stage



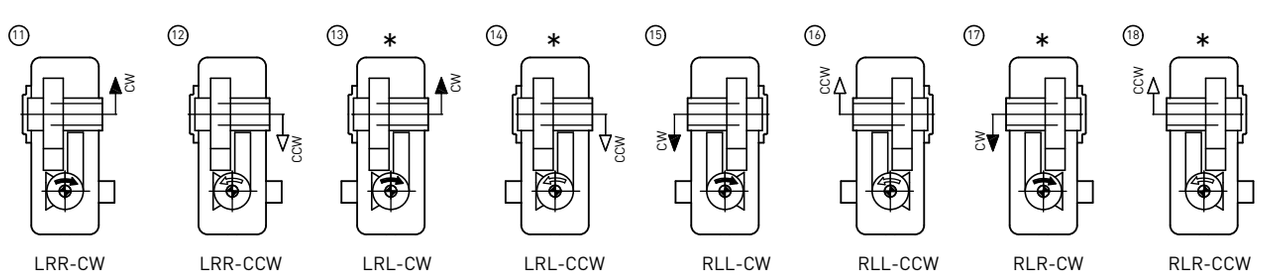
LRR-CW LRR-CCW LRL-CW LRL-CCW RLL-CW RLL-CCW RLR-CW RLR-CCW



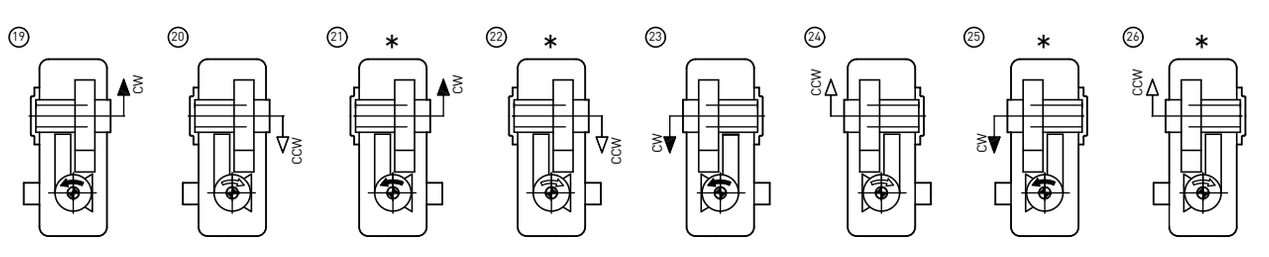
RRL-CW RRL-CCW RRR-CW RRR-CCW LLR-CW LLR-CCW LLL-CW LLL-CCW



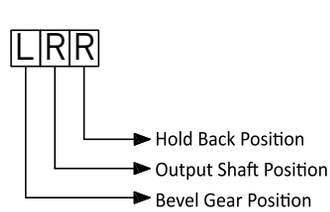
LDR-CW LDR-CCW LDL-CW LDL-CCW RDL-CW RDL-CCW RDR-CW RDR-CCW



LRR-CW LRR-CCW LRL-CW LRL-CCW RLL-CW RLL-CCW RLR-CW RLR-CCW



RRL-CW RRL-CCW RRR-CW RRR-CCW LLR-CW LLR-CCW LLL-CW LLL-CCW

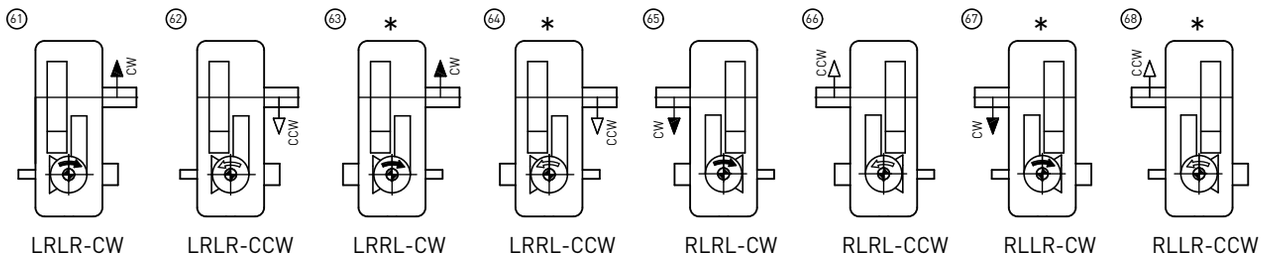


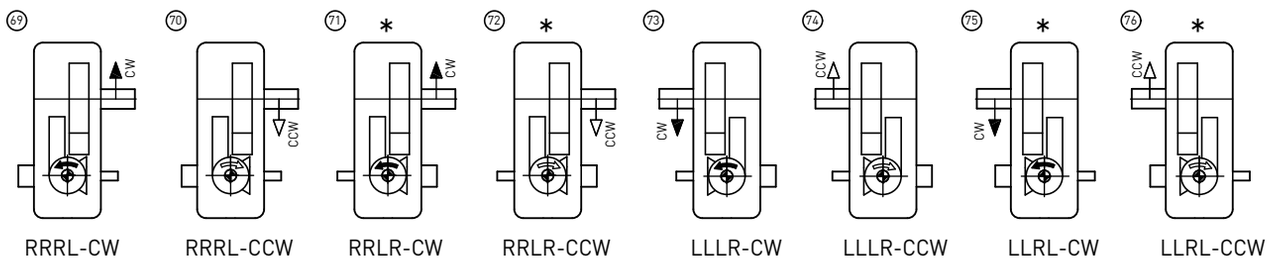
Type - **C3**

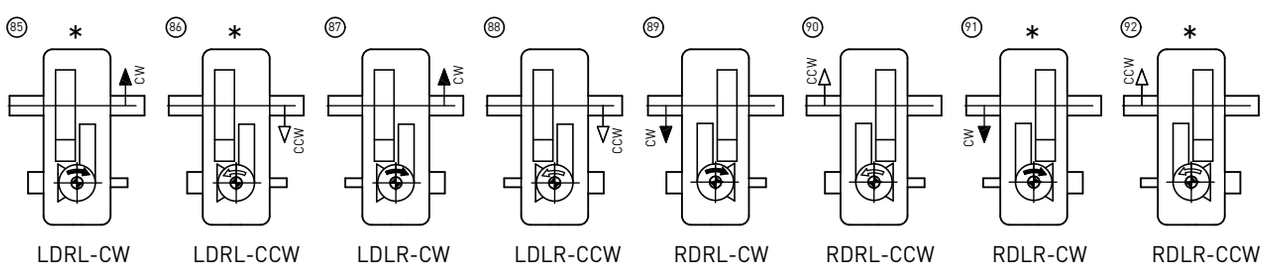
Triple Stage

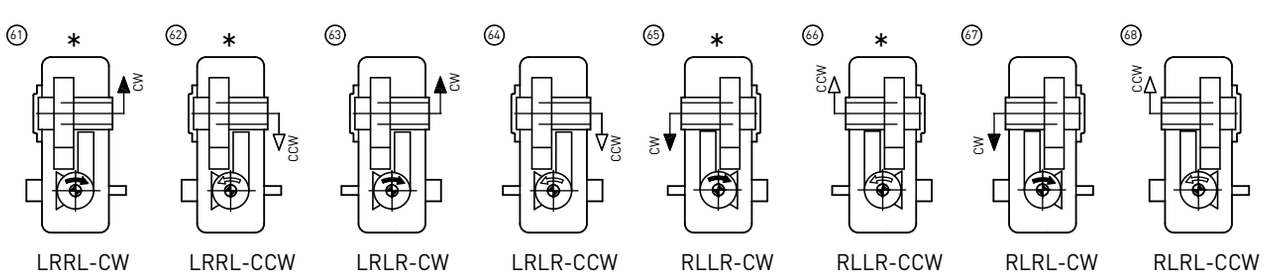
Shaft Arrangement - Int Ext & Hold Back

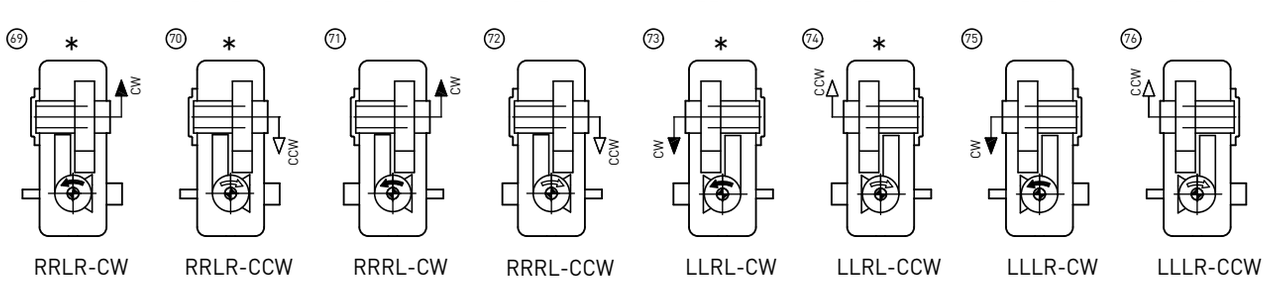
Compact Drive Gear Units

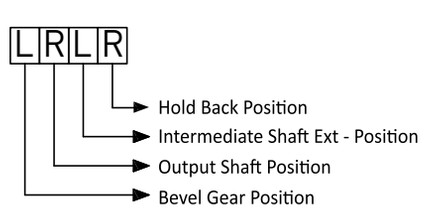








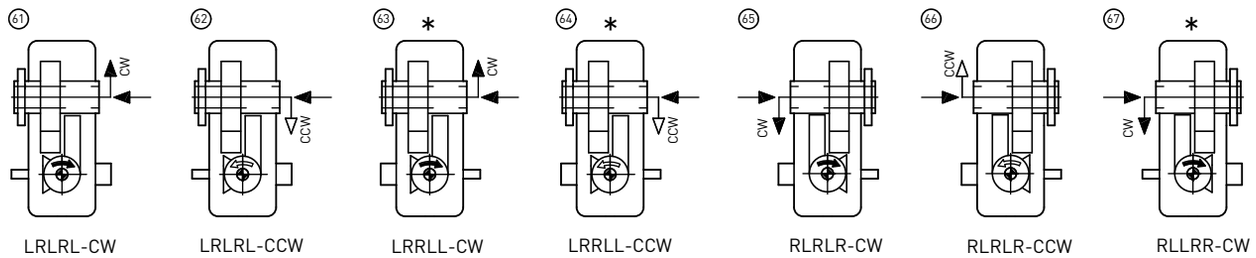




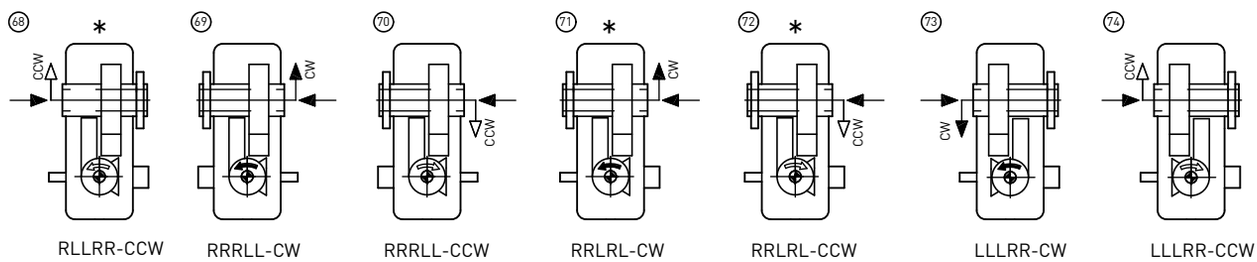
Compact Drive Gear Units

Shaft Arrangement - Int Ext & Hold Back

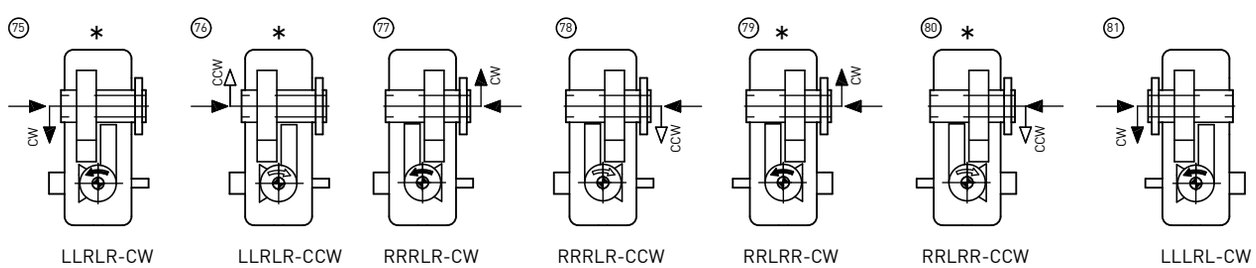
Type - C3
Tripal Stage



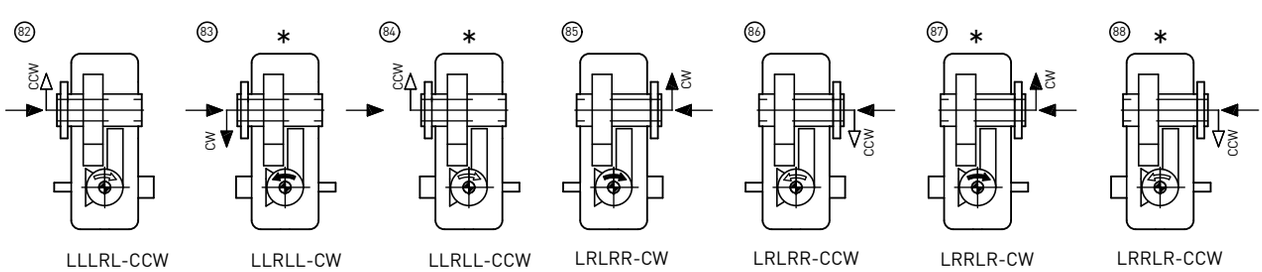
LRLRL-CW | LRLRL-CCW | LRRLL-CW | LRRLL-CCW | RLRLR-CW | RLRLR-CCW | RLLRR-CW



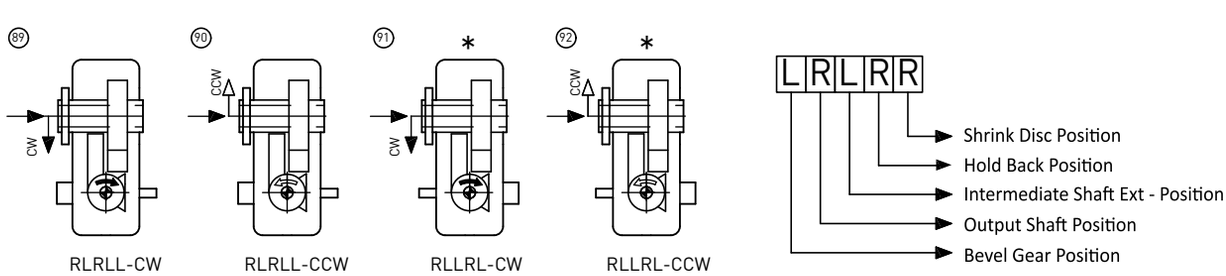
RLLRR-CCW | RRRLL-CW | RRRLL-CCW | RRLRL-CW | RRLRL-CCW | LLLRR-CW | LLLRR-CCW



LLRLR-CW | LLRLR-CCW | RRRLR-CW | RRRLR-CCW | RRLRR-CW | RRLRR-CCW | LLLRL-CW



LLLRL-CCW | LLRLL-CW | LLRLL-CCW | LRLRR-CW | LRLRR-CCW | LRRLR-CW | LRRLR-CCW



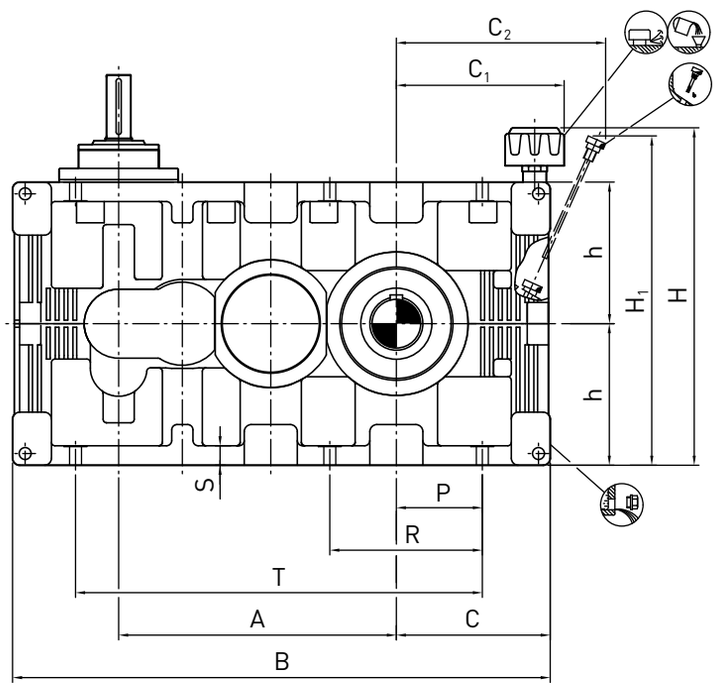
RLRLL-CW | RLRLL-CCW | RLLRL-CW | RLLRL-CCW

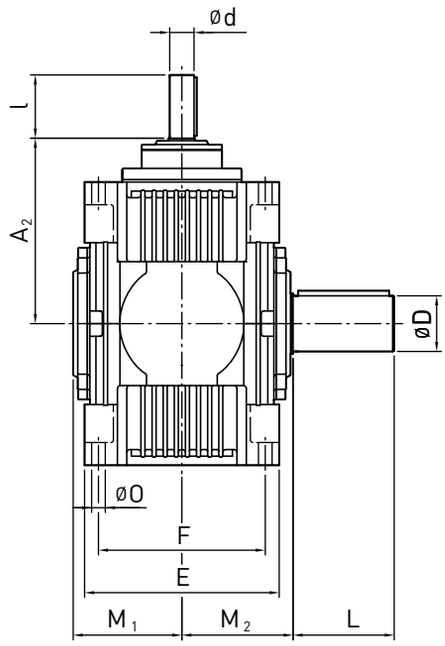
Type - C4H

Horizontal Mounting

Compact Drive Gear Units

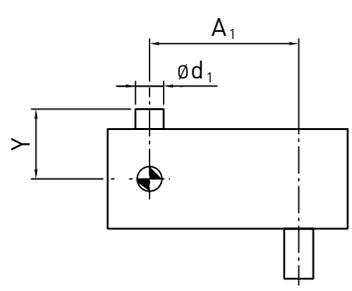
Quadruple Stage
Size 17 to 18





*For other shaft options refer page 125, 126 & 129 to 131

SIZE	Input Shaft i = 80-225 i = 100-315 i = 112-400 d	l	Input Shaft i = 250-400 i = 355-560 i = 450-560 d	l	A_2	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
C4..17	19	90	19	90	245	70	135	141	150	350	85	210	265	9
C4..18	24	100	24	100	260	80	160	158	170	395	95	255	355	13



SIZE	Foundation A	B	C	C_1 [2]	C_2 [1]	E	F	h	H_1 [1]	H [2]	O	P	R	S	T
C4..17	350	696	210	238	257	250	210	180	378	440	18	115	210	32	495
C4..18	395	787	236	263	281	284	230	200	404	480	18	135	240	32	565

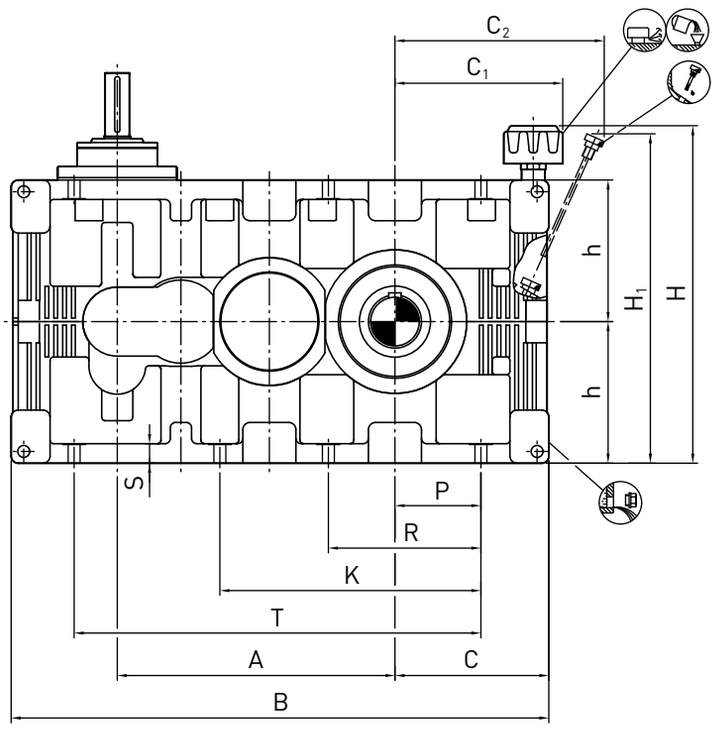
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

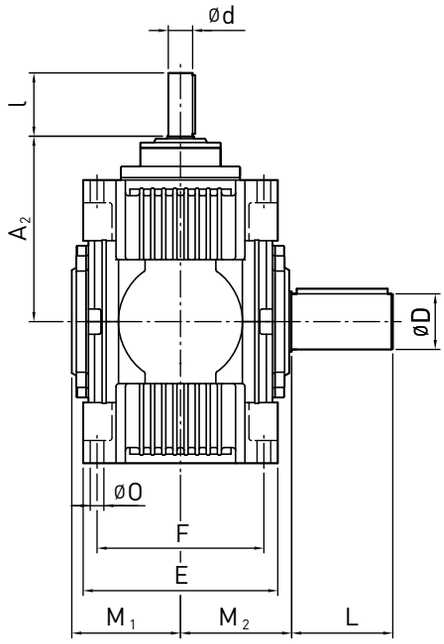
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Compact Drive Gear Units — Horizontal Mounting

Type - C4H

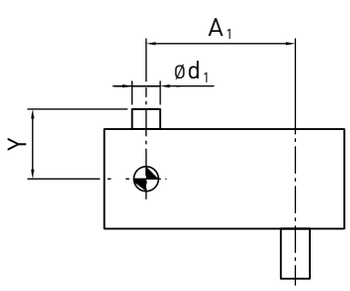
Quadruple Stage
Size 19 to 26





*For other shaft options refer page 125, 126 & 129 to 131

SIZE	Input Shaft i = 80-225 / i = 100-315 / i = 112-400 d	l	Input Shaft i = 250-400 / i = 355-560 / i = 450-560 d	l	A_2	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
C4..19	24	100	24	100	290	90	165	171	180	440	95	255	480	18
C4..20	28	100	24	100	310	100	200	176	200	495	95	255	645	26
C4..21	32	110	28	100	340	110	200	210	220	555	135	310	870	33
C4..22	38	110	32	110	375	120	210	220	230	620	135	310	1170	46
C4..23	42	130	38	110	415	140	250	234	260	700	140	310	1590	65
C4..24	48	130	42	130	460	160	290	283	295	785	175	415	2145	90
C4..25	52	130	48	130	510	170	300	293	305	880	175	415	2895	125
C4..26	58	135	52	130	560	190	350	306	345	990	190	415	3885	180



SIZE	Foundation A	B	C	C_1 [2]	C_2 [1]	E	F	h	H_1 [1]	H [2]	K	O	P	R	S	T
C4..19	440	885	265	283	315	303	250	225	455	530		23	145	255	36	615
C4..20	495	987	288	304	345	314	270	250	496	580		23	165	290	36	705
C4..21	555	1098	320	359	394	385	310	280	572	650		27	180	315	45	780
C4..22	620	1220	355	390	429	400	340	315	635	720		27	200	355	45	880
C4..23	700	1377	405	422	481	450	380	355	705	800	655	33	220	405	55	985
C4..24	785	1520	435	452	541	515	410	400	795	890	740	33	245	450	55	1110
C4..25	880	1690	475	493	591	535	460	450	865	990	840	33	280	510	55	1245
C4..26	990	1920	540	553	659	600	510	500	954	1090	940	39	315	575	65	1400

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

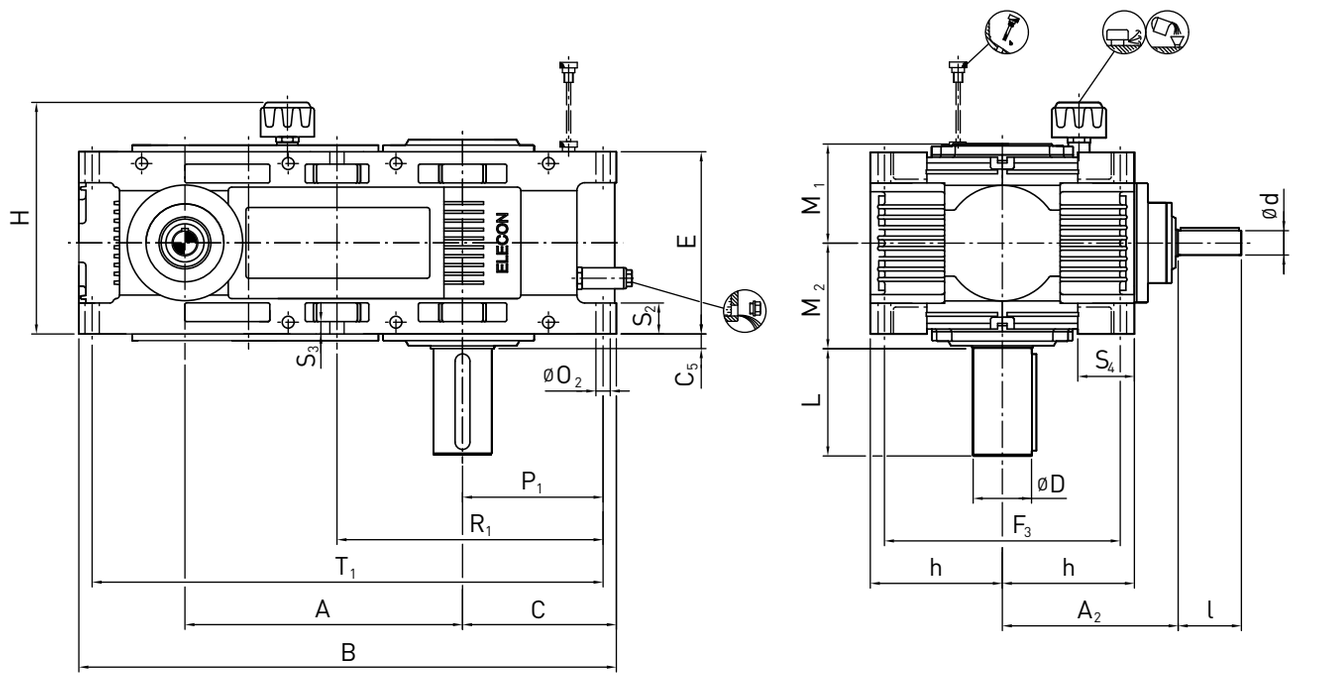
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Type - CHV

Quadruple Stage
Size 17 to 18

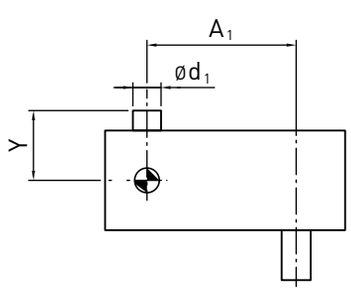
Vertical Mounting

Compact Drive Gear Units



*For other shaft options refer page 125, 126 & 129 to 131

SIZE	Input Shaft i = 80-225 i = 100-315 i = 112-400 d	l	Input Shaft i = 250-400 i = 355-560 i = 450-560 d	l	A_2	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
C4..17	19	90	19	90	245	70	135	141	150	350	85	210	265	-
C4..18	24	100	24	100	260	80	160	158	170	395	95	255	355	-



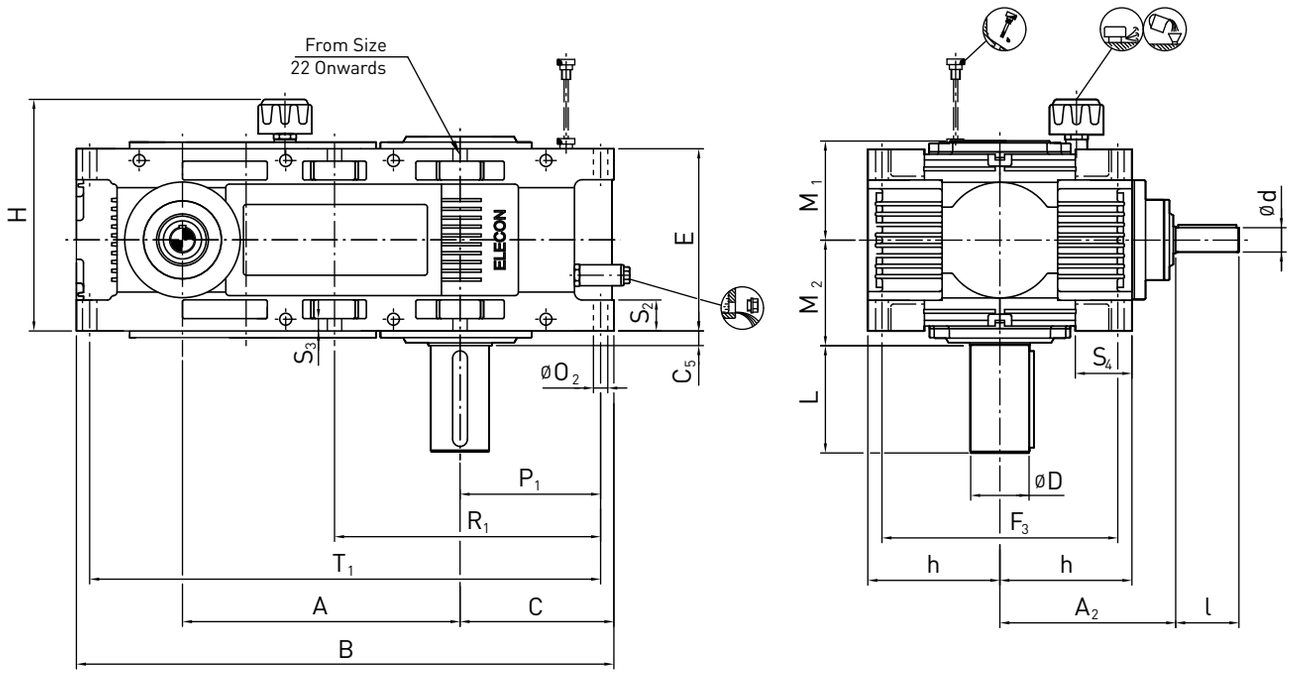
SIZE	Foundation A	B	C	C_5	E	F_3	h	H [2]	O_2	P_1	R_1	S_2	S_3	S_4	T_1
C4..17	350	696	210	25	250	310	180	-	18	190	350	40	20	90	655
C4..18	395	787	236	28	284	350	200	-	18	215	395	45	20	90	744

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

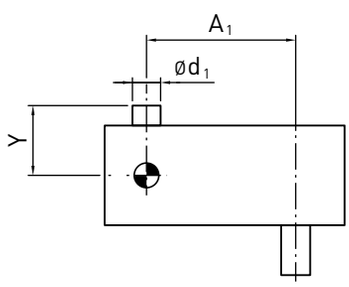
Compact Drive Gear Units — Vertical Mounting — Type - **C4V**

Quadruple Stage
Size 19 to 26



*For other shaft options refer page 125, 126 & 129 to 131

SIZE	Input Shaft i = 80-225 i = 100-315 i = 112-400 d	l	Input Shaft i = 250-400 i = 355-560 i = 450-560 d	l	A_2	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
C4..19	24	100	24	100	290	90	165	171	180	440	95	255	480	-
C4..20	28	100	24	100	310	100	200	176	200	495	95	255	645	-
C4..21	32	110	28	100	340	110	200	210	220	555	135	310	870	-
C4..22	38	110	32	110	375	120	210	220	230	620	135	310	1170	-
C4..23	42	130	38	110	415	140	250	234	260	700	140	310	1590	-
C4..24	48	130	42	130	460	160	290	283	295	785	175	415	2145	-
C4..25	52	130	48	130	510	170	300	293	305	880	175	415	2895	-
C4..26	58	135	52	130	560	190	350	306	345	990	190	415	3885	-



SIZE	Foundation A	B	C	C_5	E	F_3	h	H [2]	O_2	P_1	R_1	S_2	S_3	S_4	T_1
C4..19	440	885	265	28.5	303	400	225	-	23	240	440	48.5	22	105	836
C4..20	495	987	288	43	314	440	250	-	23	262	487	45	24	105	935
C4..21	555	1098	320	27.5	385	500	280	-	27	295	545	65	28	120	1045
C4..22	620	1220	355	30	400	560	315	-	27	325	605	60	28	120	1160
C4..23	700	1377	405	35	450	630	355	-	33	370	685	70	35	150	1305
C4..24	785	1520	435	37.5	515	700	400	-	33	398	753	87.5	35	150	1443
C4..25	880	1690	475	37.5	535	800	450	-	33	436	836	80	35	150	1612
C4..26	990	1920	540	45	600	890	500	-	39	495	945	100	45	175	1830

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

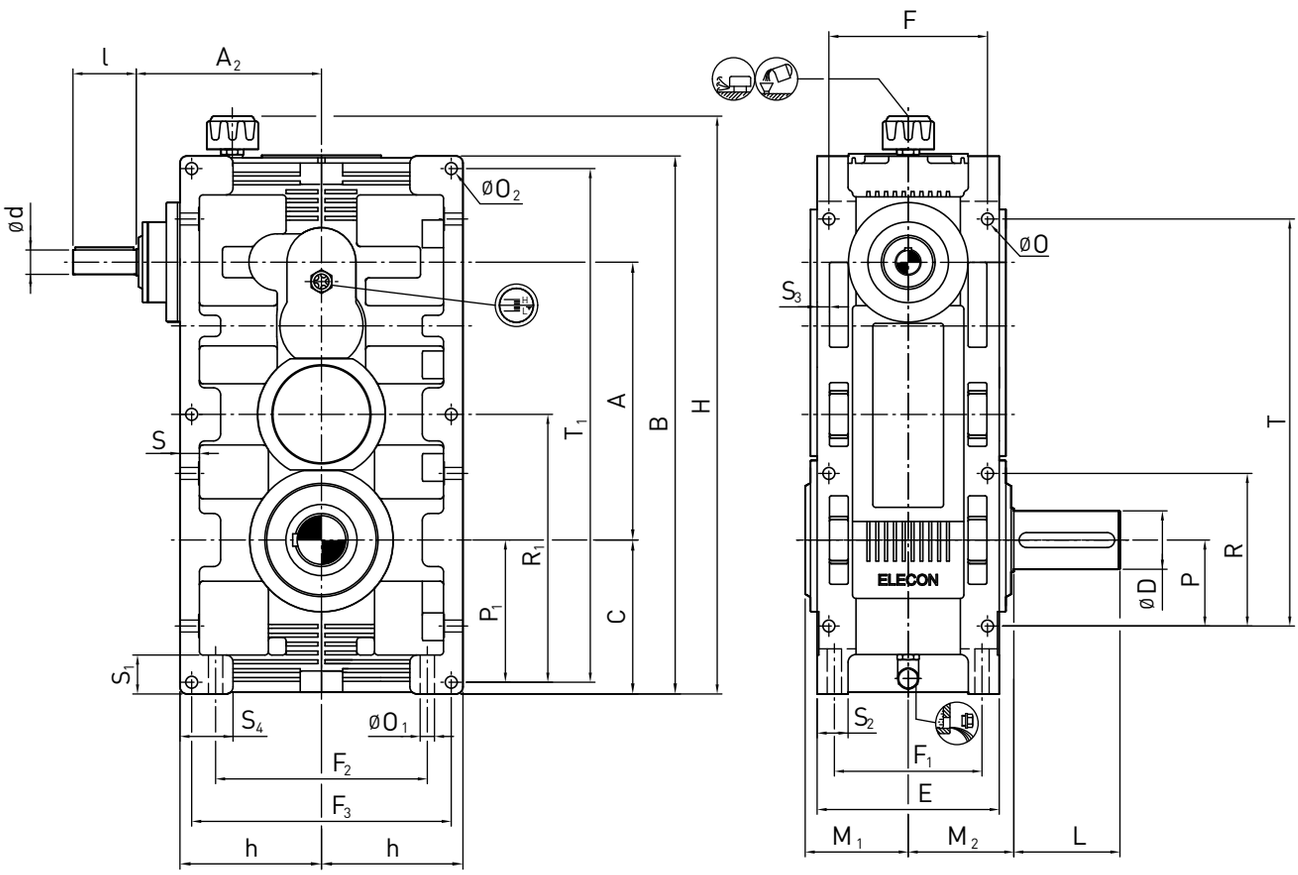
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Type - C40

Over Driven

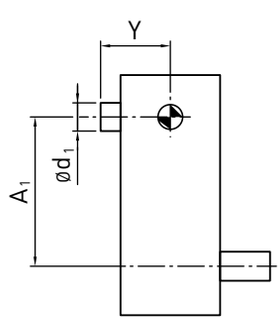
Compact Drive Gear Units

Quadruple Stage
Size 14 to 18



*For other shaft options refer page 125, 126 & 129 to 131

SIZE	Input Shaft i = 80-225 / i = 100-315 / i = 112-400 d	l	Input Shaft i = 250-400 / i = 355-560 / i = 450-560 d	l	A_2	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 1)	Y 1)	Average Weight [kg]	Oil Quantity [Litres]
C4..17	19	90	19	90	245	70	135	141	150	350	85	210	265	-
C4..18	24	100	24	100	260	80	160	158	170	395	95	255	355	-



SIZE	Foundation A	B	C	E	F	F_1	F_2	F_3	h	H	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
C4..17	350	696	210	250	210	210	220	310	180	764	18	18	18	115	190	210	350	32	60	40	20	90	495	655
C4..18	395	787	236	284	230	230	260	350	200	844	18	18	18	135	215	240	395	32	66	45	20	90	565	744

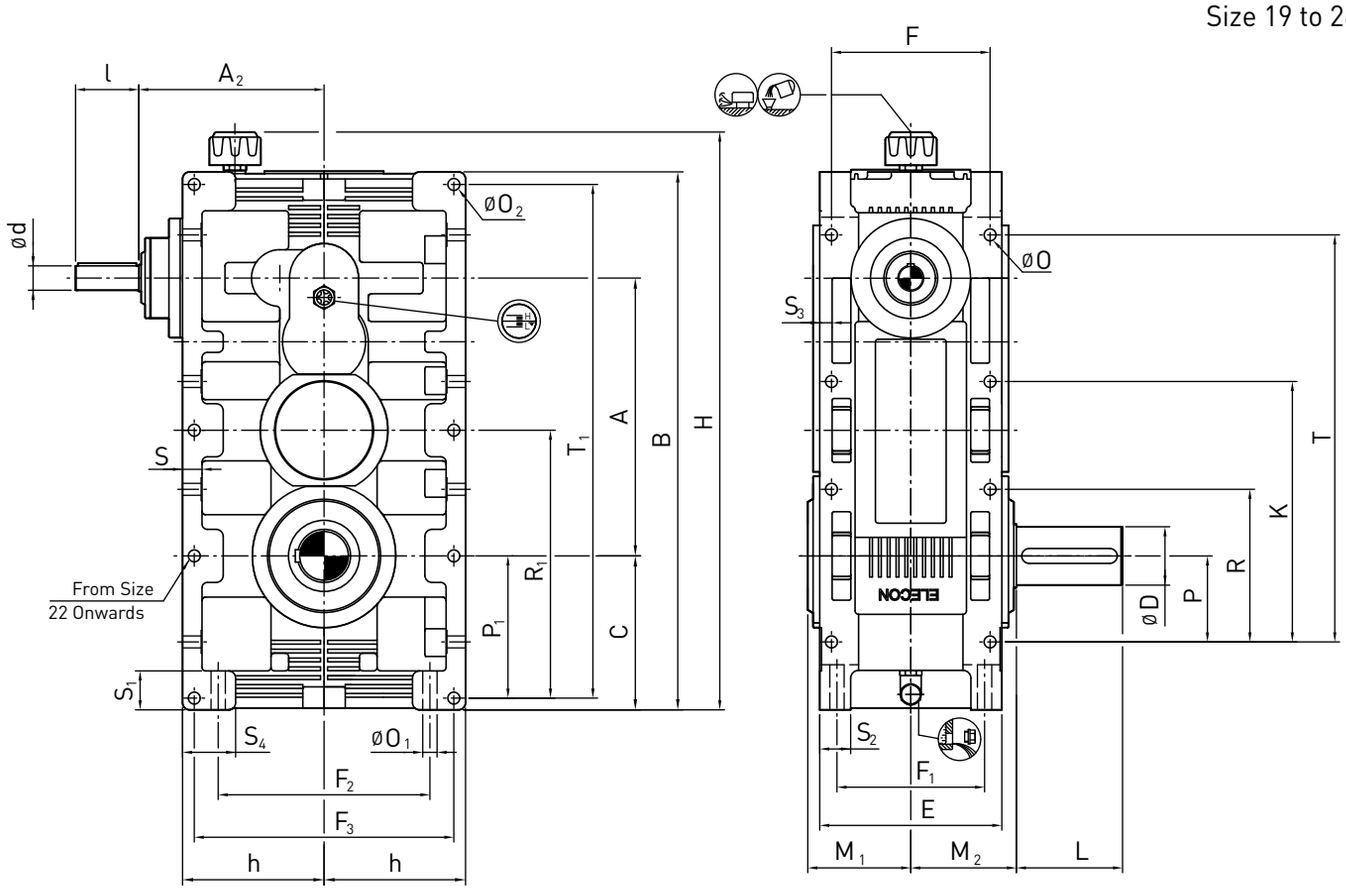
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Compact Drive Gear Units — Over Driven

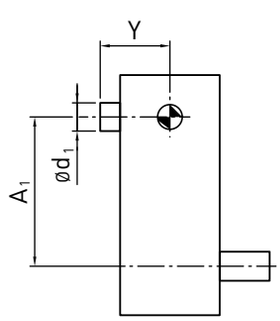
Type - C40

Quadruple Stage
Size 19 to 26



*For other shaft options refer page 125, 126 & 129 to 131

SIZE	Input Shaft: i = 80-225 / i = 100-315 / i = 112-400 d	l	i = 250-400 / i = 355-560 / i = 450-560 d	l	A2	Output Shaft: D	L	M1	M2	Backstop: A1	d1 1)	Y 1)	Average Weight [kg]	Oil Quantity [Litres]
C4..19	24	100	24	100	290	90	165	171	180	440	95	255	480	-
C4..20	28	100	24	100	310	100	200	176	200	495	95	255	645	-
C4..21	32	110	28	100	340	110	200	210	220	555	135	310	870	-
C4..22	38	110	32	110	375	120	210	220	230	620	135	310	1170	-
C4..23	42	130	38	110	415	140	250	234	260	700	140	310	1590	-
C4..24	48	130	42	130	460	160	290	283	295	785	175	415	2145	-
C4..25	52	130	48	130	510	170	300	293	305	880	175	415	2895	-
C4..26	58	135	52	130	560	190	350	306	345	990	190	415	3885	-



SIZE	Foundation: A	B	C	E	F	F1	F2	F3	h	H	K	O	O1	O2	P	P1	R	R1	S	S1	S2	S3	S4	T	T1
C4..19	440	885	265	303	250	250	290	400	225	930		23	23	23	145	240	255	440	36	75	48.5	22	105	615	836
C4..20	495	987	288	314	270	270	340	440	250	1025		23	23	23	165	262	290	487	36	78	45	24	105	705	935
C4..21	555	1098	320	385	310	310	370	500	280	1140		27	27	27	180	295	315	545	45	85	65	28	120	780	1045
C4..22	620	1220	355	400	340	340	440	560	315	1260		27	27	27	200	325	355	605	45	90	60	28	120	880	1160
C4..23	700	1377	405	450	380	380	480	630	355	1425	655	33	33	33	220	370	405	685	55	110	70	35	150	985	1305
C4..24	785	1520	435	515	410	410	570	700	400	1555	740	33	33	33	245	398	450	753	55	110	87.5	35	150	1110	1443
C4..25	880	1690	475	535	460	460	670	800	450	1695	840	33	33	33	280	436	510	836	55	110	80	35	150	1245	1612
C4..26	990	1920	540	600	510	510	730	890	500	1920	940	39	39	39	315	495	575	945	65	130	100	45	175	1400	1830

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

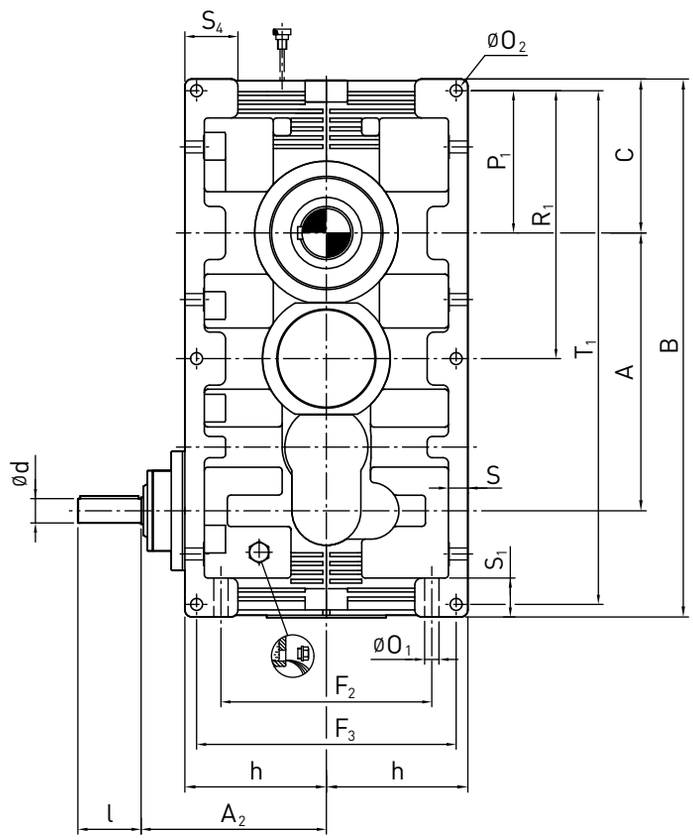
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

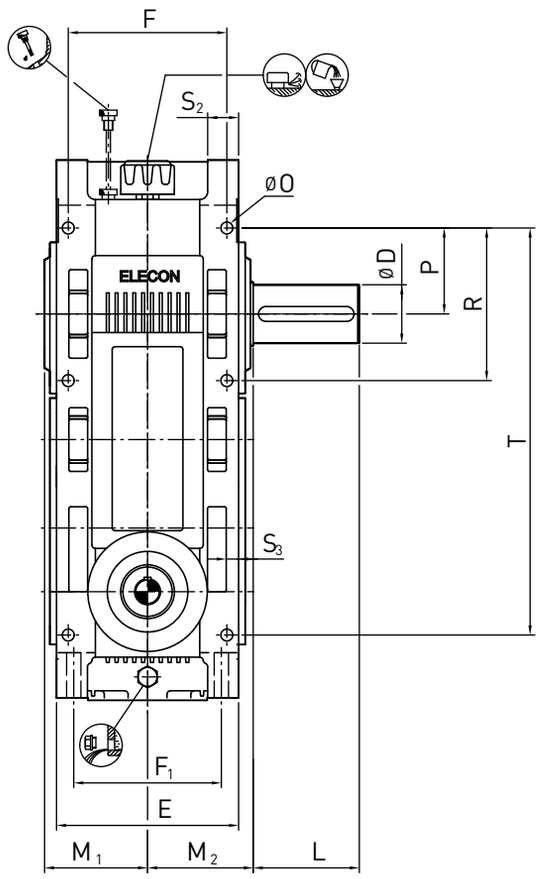
Type - C4U

Under Driven

Compact Drive Gear Units

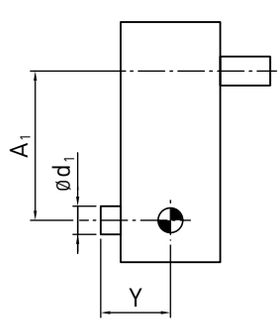
Quadruple Stage
Size 17 to 18





*For other shaft options refer page 125, 126 & 129 to 131

SIZE	Input Shaft i = 80-225 / i = 100-315 / i = 112-400 d	l	Input Shaft i = 250-400 / i = 355-560 / i = 450-560 d	l	A_2	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 [1]	Y [1]	Average Weight [kg]	Oil Quantity [Litres]
C4..17	19	90	19	90	245	70	135	141	150	350	85	210	265	-
C4..18	24	100	24	100	260	80	160	158	170	395	95	255	355	-



SIZE	Foundation A	B	C	E	F	F_1	F_2	F_3	h	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
C4..17	350	696	210	250	210	210	220	310	180	18	18	18	115	190	210	350	32	60	40	20	90	495	655
C4..18	395	787	236	284	230	230	260	350	200	18	18	18	135	215	240	395	32	66	45	20	90	565	744

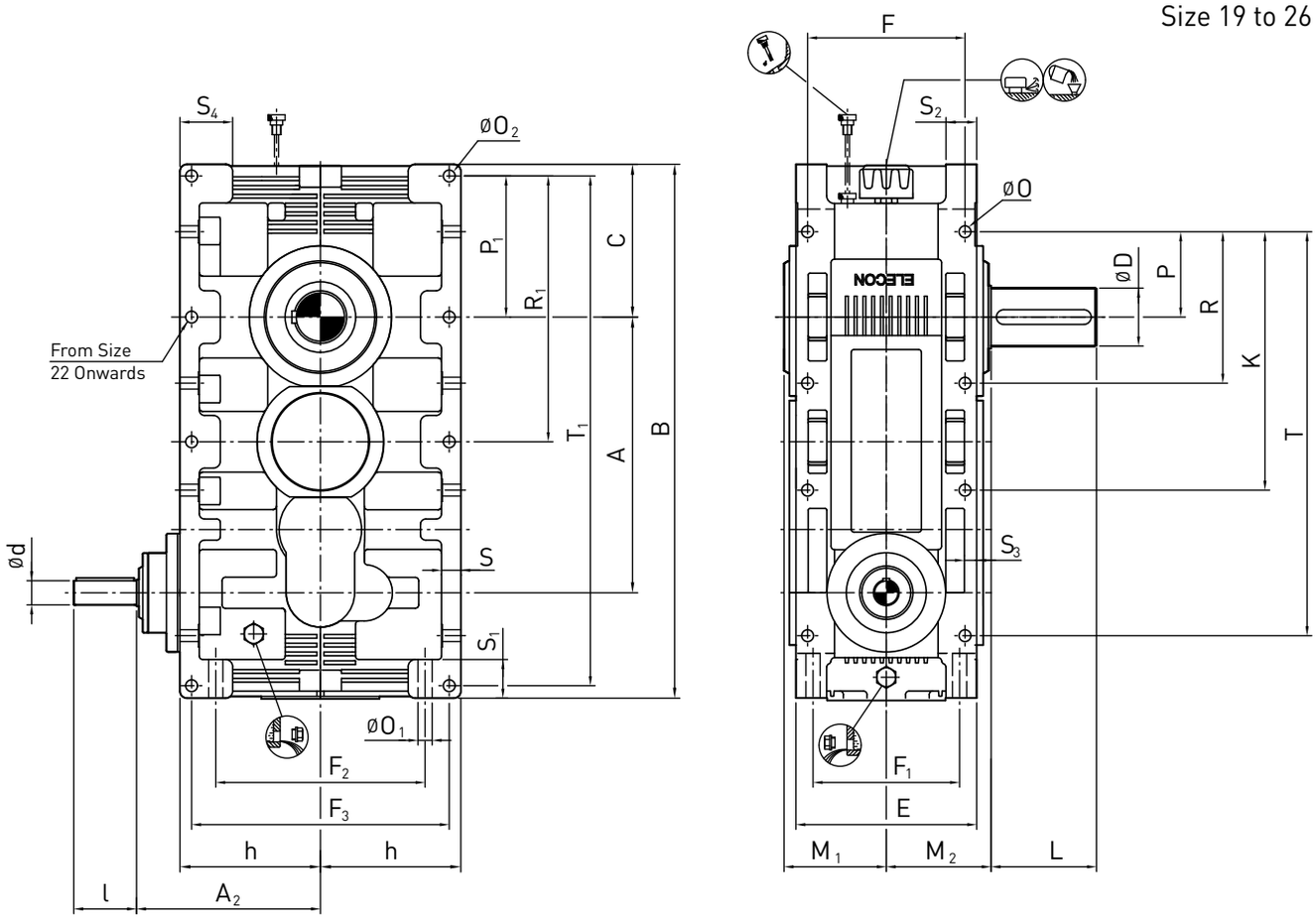
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

Compact Drive Gear Units — Under Driven

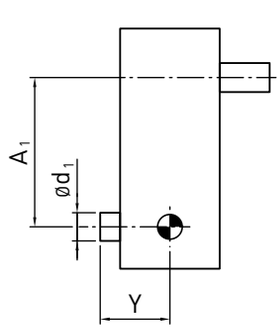
Type - C4U

Quadruple Stage
Size 19 to 26



*For other shaft options refer page 125, 126 & 129 to 131

SIZE	Input Shaft i = 80-225 / i = 100-315 / i = 112-400 d	l	Input Shaft i = 250-400 / i = 355-560 / i = 450-560 d	l	A_2	Output Shaft D	L	M_1	M_2	Backstop A_1	d_1 1)	Y 1)	Average Weight [kg]	Oil Quantity [Litres]
C4..19	24	100	24	100	290	90	165	171	180	440	95	255	480	-
C4..20	28	100	24	100	310	100	200	176	200	495	95	255	645	-
C4..21	32	110	28	100	340	110	200	210	220	555	135	310	870	-
C4..22	38	110	32	110	375	120	210	220	230	620	135	310	1170	-
C4..23	42	130	38	110	415	140	250	234	260	700	140	310	1590	-
C4..24	48	130	42	130	460	160	290	283	295	785	175	415	2145	-
C4..25	52	130	48	130	510	170	300	293	305	880	175	415	2895	-
C4..26	58	135	52	130	560	190	350	306	345	990	190	415	3885	-



SIZE	Foundation A	B	C	E	F	F_1	F_2	F_3	h	K	O	O_1	O_2	P	P_1	R	R_1	S	S_1	S_2	S_3	S_4	T	T_1
C4..19	440	885	265	303	250	250	290	400	225		23	23	23	145	240	255	440	36	75	48.5	22	105	615	836
C4..20	495	987	288	314	270	270	340	440	250		23	23	23	165	262	290	487	36	78	45	24	105	705	935
C4..21	555	1098	320	385	310	310	370	500	280		27	27	27	180	295	315	545	45	85	65	28	120	780	1045
C4..22	620	1220	355	400	340	340	440	560	315		27	27	27	200	325	355	605	45	90	60	28	120	880	1160
C4..23	700	1377	405	450	380	380	480	630	355	655	33	33	33	220	370	405	685	55	110	70	35	150	985	1305
C4..24	785	1520	435	515	410	410	570	700	400	740	33	33	33	245	398	450	753	55	110	87.5	35	150	1110	1443
C4..25	880	1690	475	535	460	460	670	800	450	840	33	33	33	280	436	510	836	55	110	80	35	150	1245	1612
C4..26	990	1920	540	600	510	510	730	890	500	940	39	39	39	315	495	575	945	65	130	100	45	175	1400	1830

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

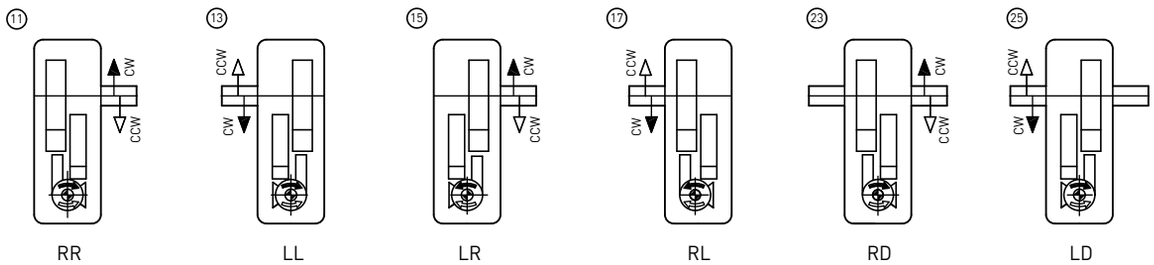
1) Max. dimensions; details acc. to order related documents
2) Approximate values; exact values acc. to order related documents

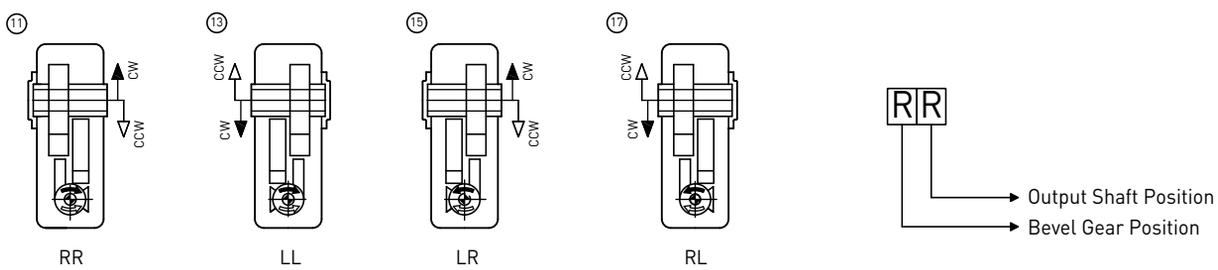
Type - **C4**

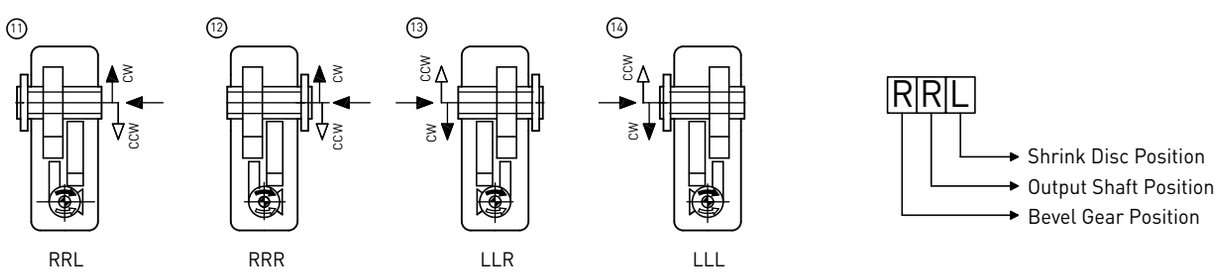
Quadruple Stage

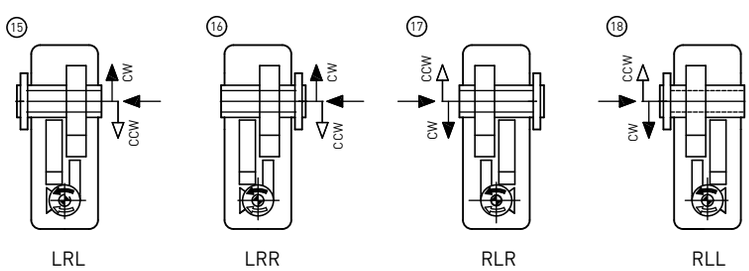
Shaft Arrangement

Compact Drive Gear Units







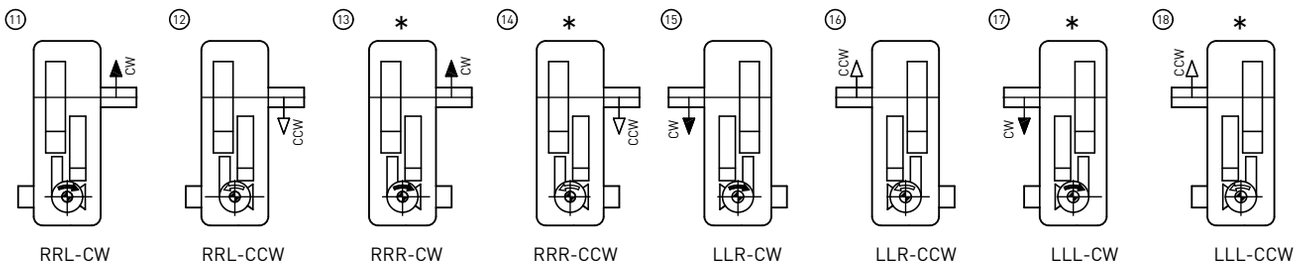


Compact Drive Gear Units

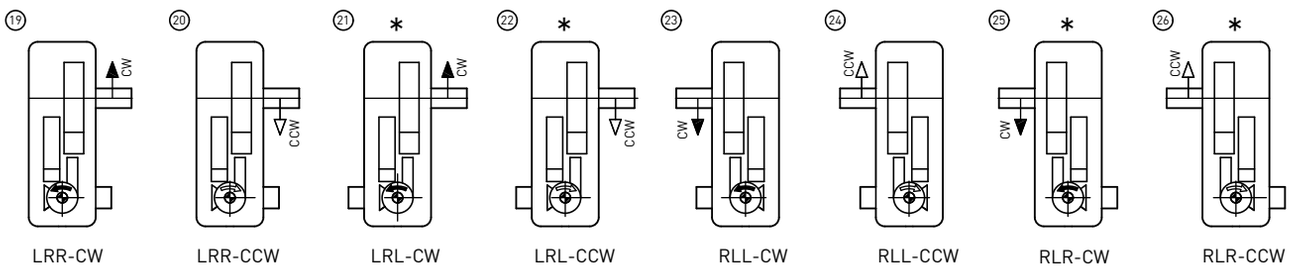
Shaft Arrangement - Hold Back

Type - C4

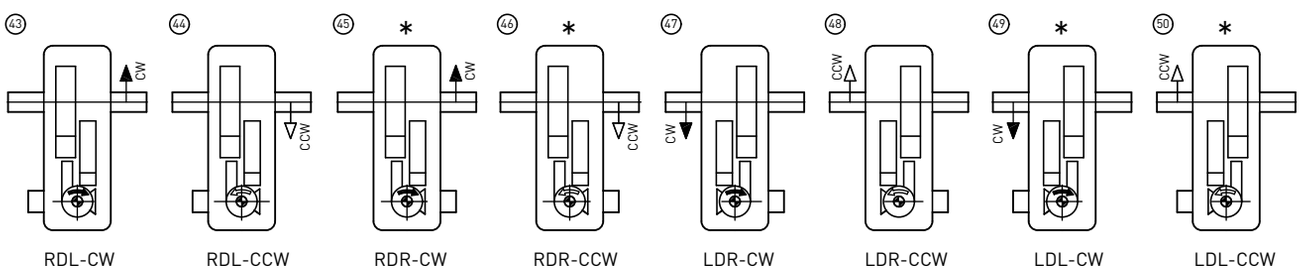
Quadruple Stage



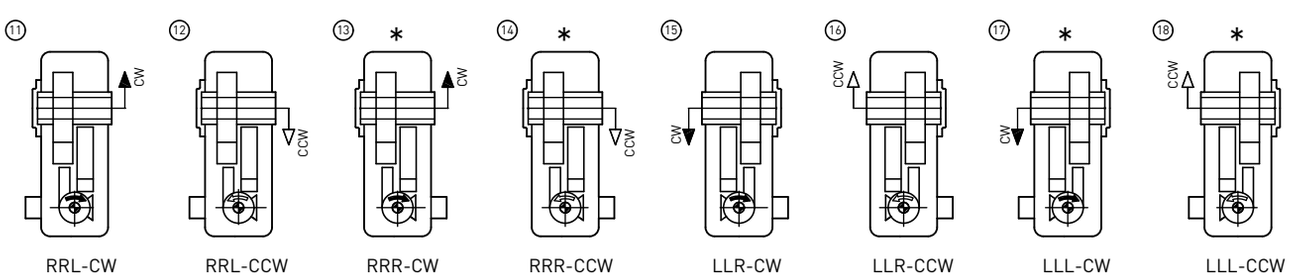
RRL-CW | RRL-CCW | RRR-CW | RRR-CCW | LLR-CW | LLR-CCW | LLL-CW | LLL-CCW



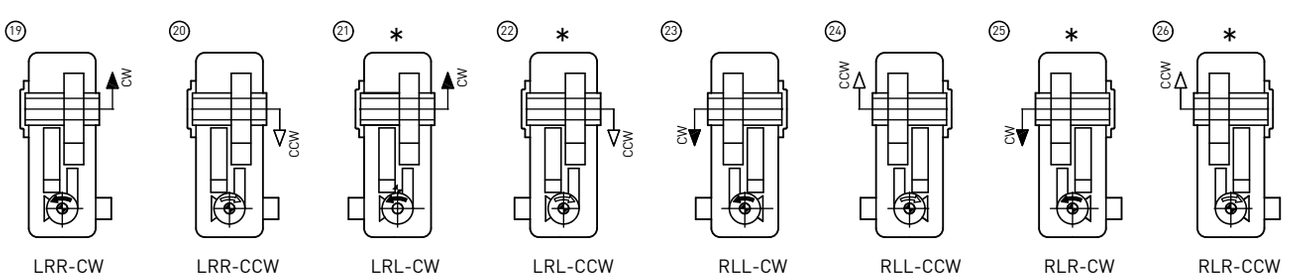
LRR-CW | LRR-CCW | LRL-CW | LRL-CCW | RLL-CW | RLL-CCW | RLR-CW | RLR-CCW



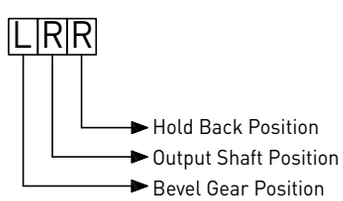
RDL-CW | RDL-CCW | RDR-CW | RDR-CCW | LDR-CW | LDR-CCW | LDL-CW | LDL-CCW



RRL-CW | RRL-CCW | RRR-CW | RRR-CCW | LLR-CW | LLR-CCW | LLL-CW | LLL-CCW



LRR-CW | LRR-CCW | LRL-CW | LRL-CCW | RLL-CW | RLL-CCW | RLR-CW | RLR-CCW

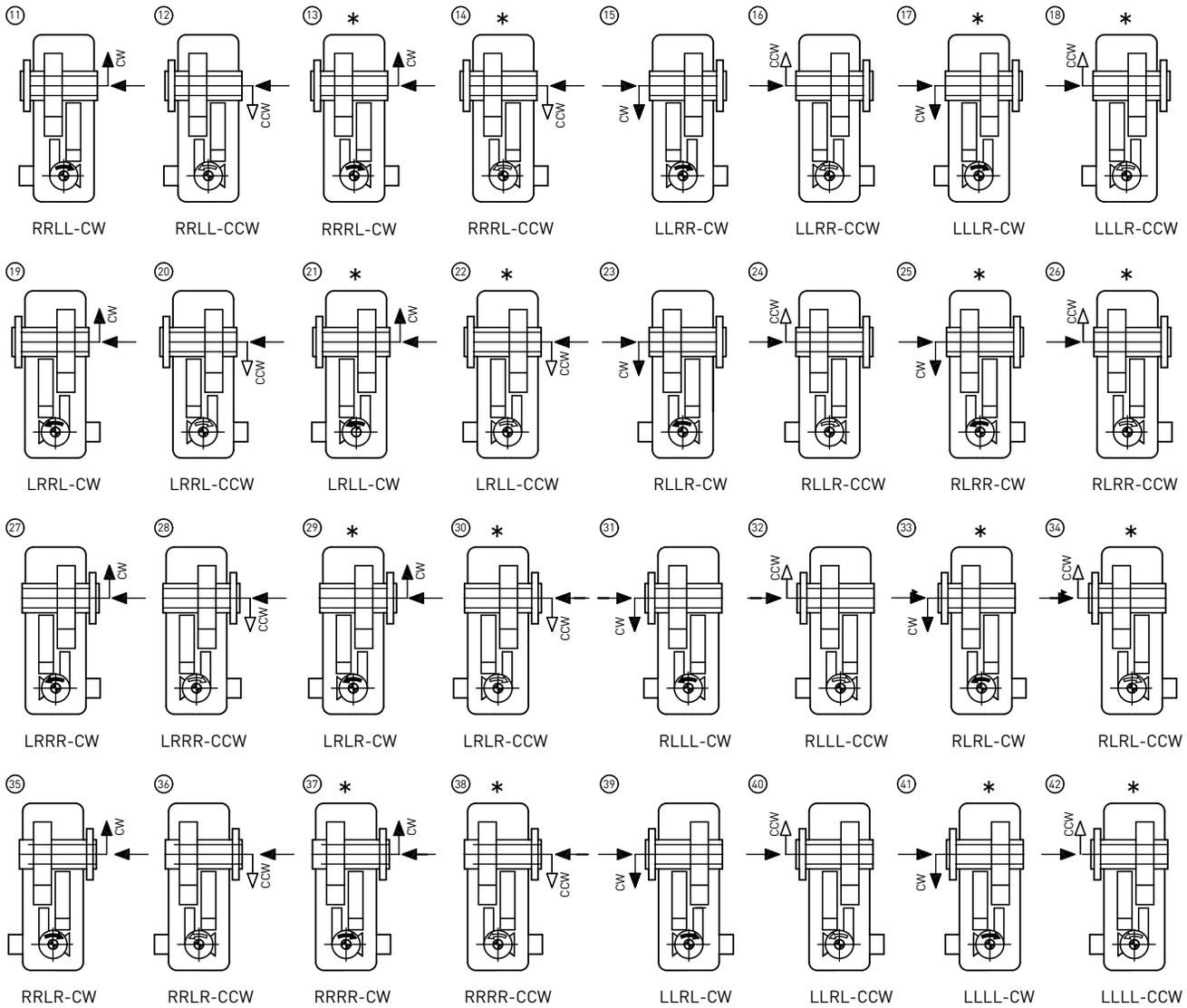


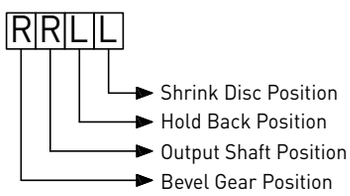
Type - **C4**

Quadruple Stage

Shaft Arrangement - Hold Back

Compact Drive Gear Units



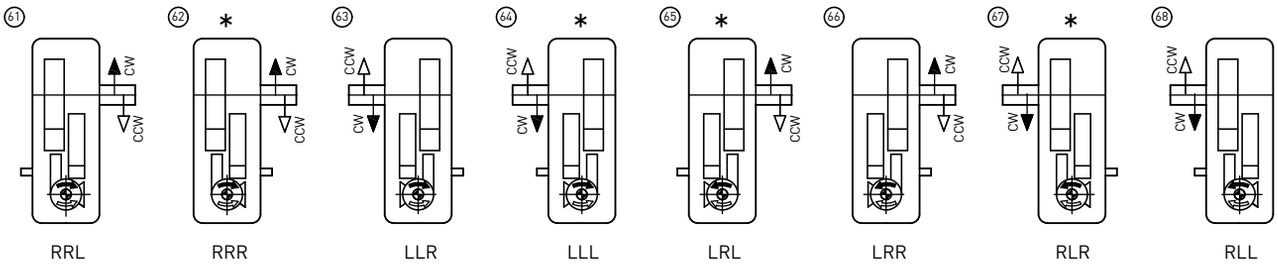


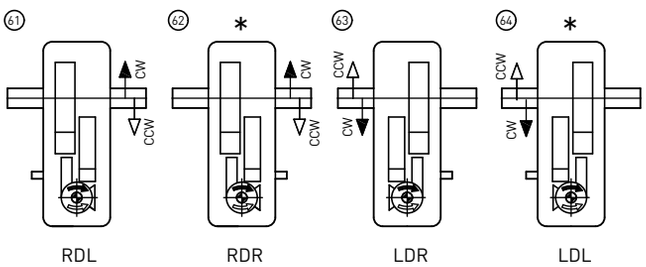
Compact Drive Gear Units

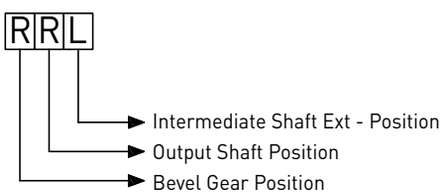
Shaft Arrangement - Int Ext

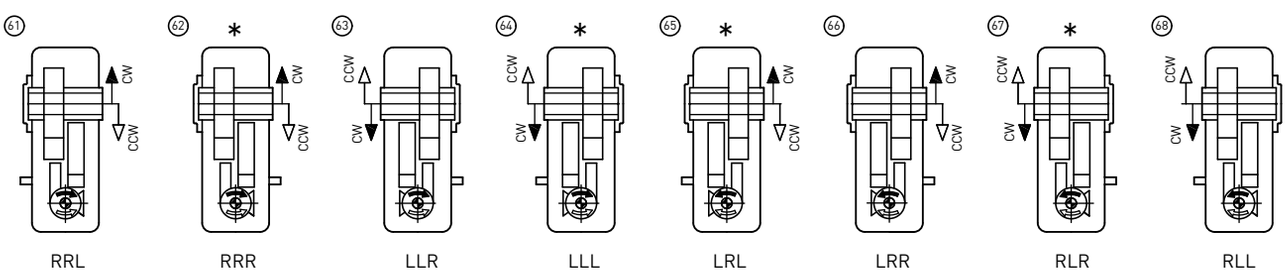
Type - C4

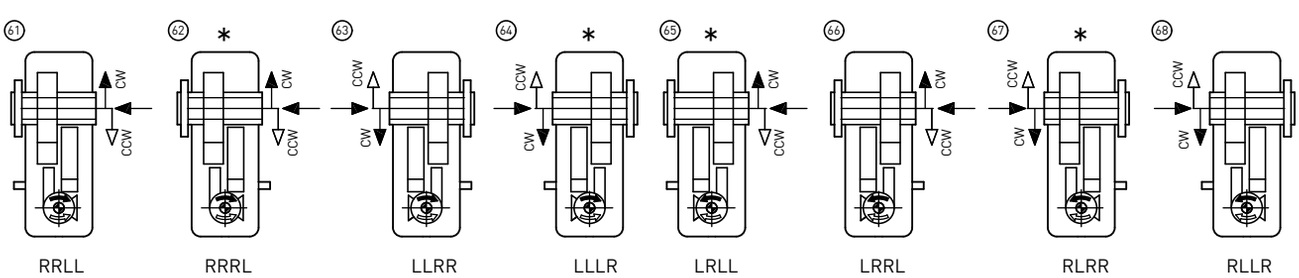
Quadruple Stage

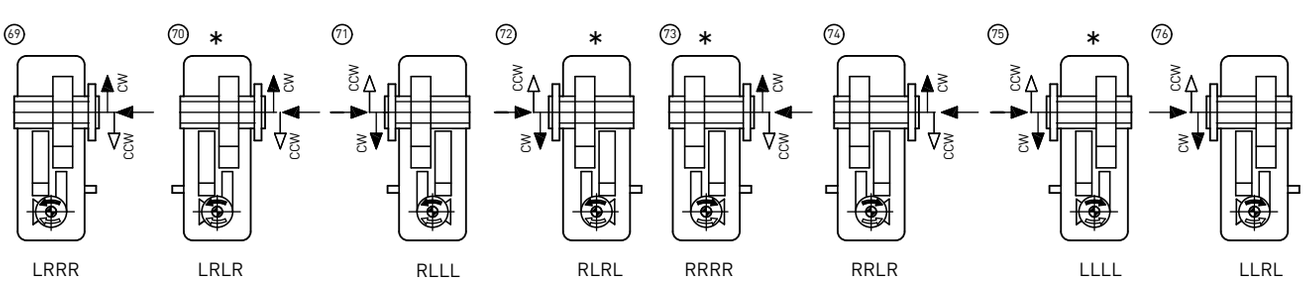


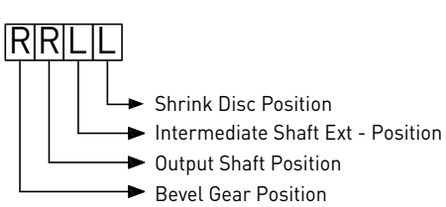










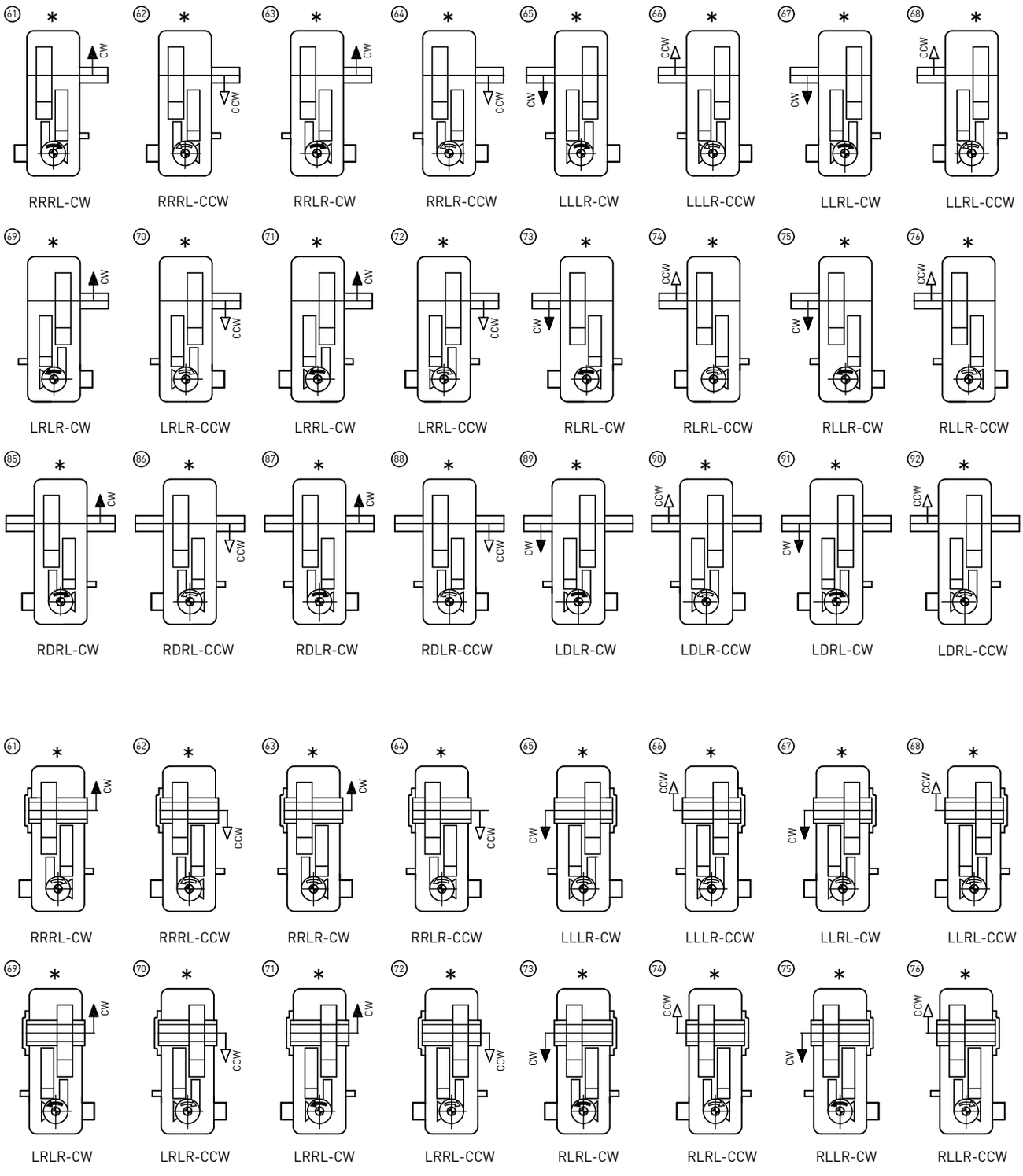


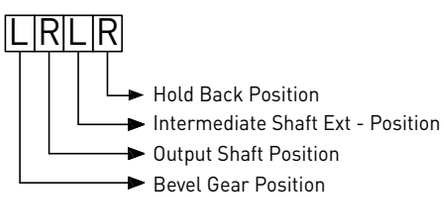
Type - **C4**

Quadruple Stage

Shaft Arrangement - Int Ext & Hold Back

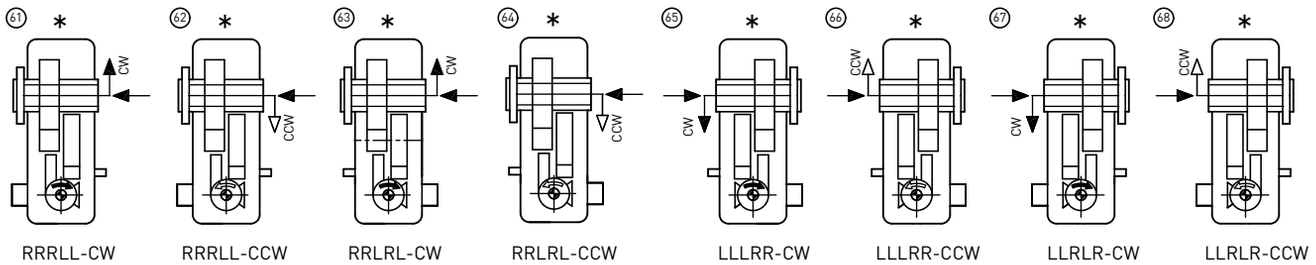
Compact Drive Gear Units



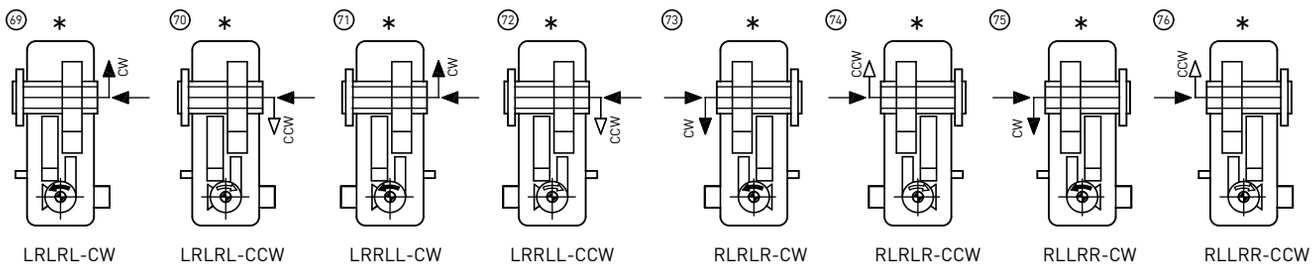


Compact Drive Gear Units — Shaft Arrangement - Int Ext & Hold Back — Type - **C4**

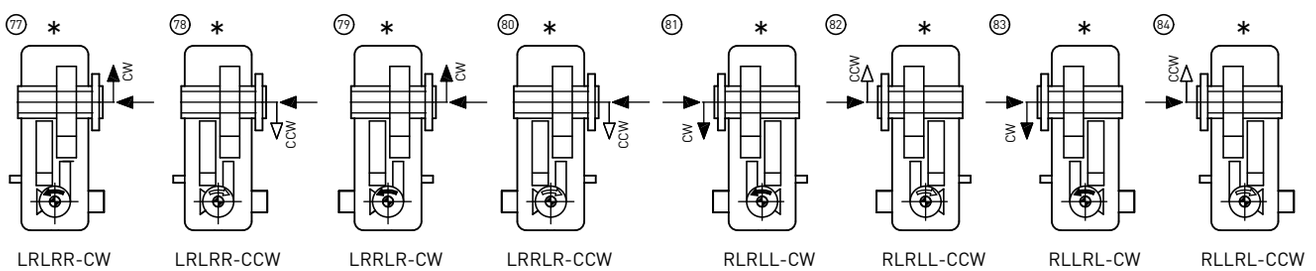
Quadruple Stage



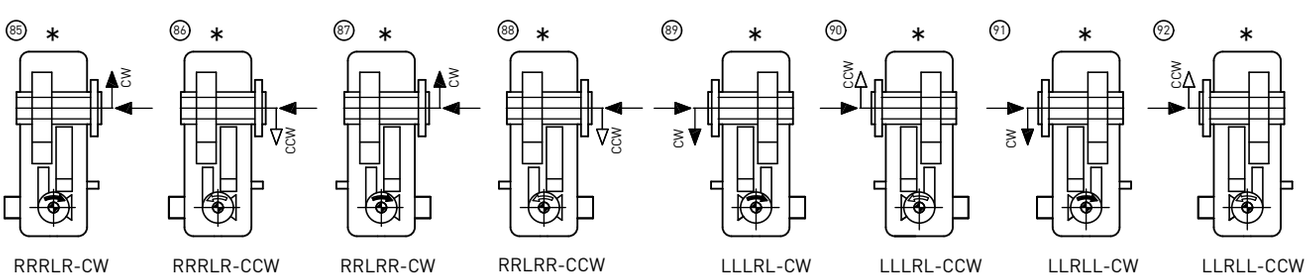
RRRLL-CW | RRRLL-CCW | RRLRL-CW | RRLRL-CCW | LLLRR-CW | LLLRR-CCW | LLRLR-CW | LLRLR-CCW



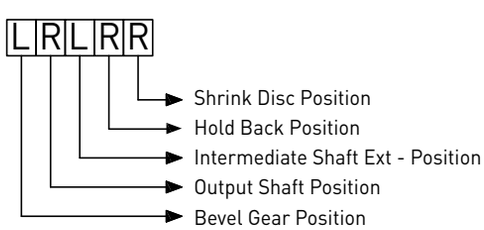
LRLRL-CW | LRLRL-CCW | LRRLL-CW | LRRLL-CCW | RLRLR-CW | RLRLR-CCW | RLLRR-CW | RLLRR-CCW



LRLRR-CW | LRLRR-CCW | LRRLR-CW | LRRLR-CCW | RLRLL-CW | RLRLL-CCW | RLLRL-CW | RLLRL-CCW



RRRLR-CW | RRRLR-CCW | RRLRR-CW | RRLRR-CCW | LLLRL-CW | LLLRL-CCW | LLLRL-CW | LLLRL-CCW

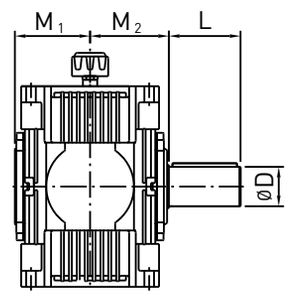


Helical / Bevel-Helical / Compact Drive Gear Units

Output Shaft Types

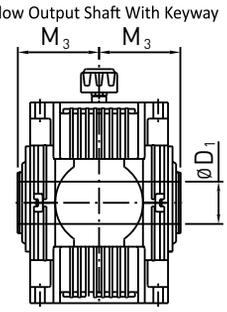
Size	Solid Output Shaft			
	D	L	M_1	M_2
11	32	55	93.5	105
12	38	60	101	110
13	45	95	106	115
14	48	95	106	125
15	55	95	127	135
16	60	130	132.5	145
17	70	135	141	150
18	80	160	158	170

Solid Output Shaft - (N)



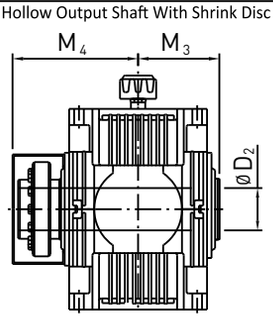
Size	Hollow Shaft Key	
	D_1	M_3
11	35	105
13	50	115
14	55	120
15	60	135
16	70	145
17	75	150
18	90	170

Hollow Output Shaft With Keyway - (K)



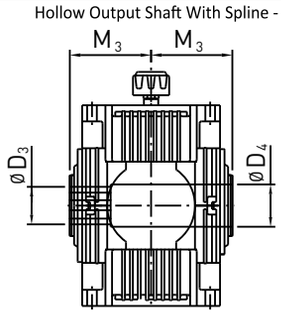
Size	Hollow Shaft (Shrink Disc)		
	D_2	M_3	M_4
14	60	120	200
15	65	135	215
16	75	145	235
17	80	150	250
18	95	170	280

Hollow Output Shaft With Shrink Disc - (D)



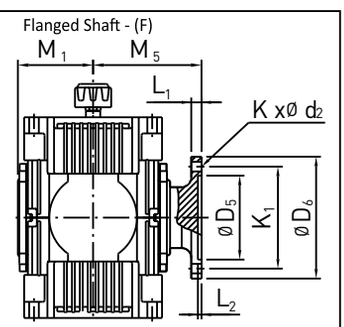
Size	Hollow Shaft (Spline)		
	D_3	D_4	M_3
11	Dimensions on request		
13			
14			
15			
16			
17			
18			

Hollow Output Shaft With Spline - (S)



Size	Flanged Shaft							
	D_5	D_6	K_1	K xø d_2	L_1	L_2	M_1	M_5
11	Dimensions on request							
13								
14								
15								
16								
17								
18								

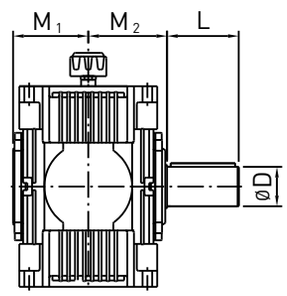
Flanged Shaft - (F)



Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

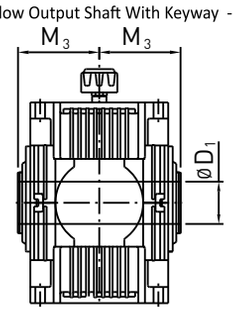
Size	Solid Output Shaft			
	D	L	M_1	M_2
19	90	165	170.5	180
20	100	200	176	200
21	110	200	210	220
22	120	210	220	230
23	140	250	234	260
24	160	290	282.5	295
25	170	300	292.5	305
26	190	350	305.5	345

Solid Output Shaft - (N)



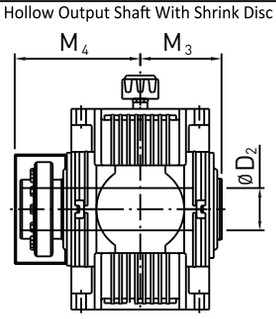
Size	Hollow Shaft Key	
	D_1	M_3
19	105	180
20	110	190
21	120	220

Hollow Output Shaft With Keyway - (K)



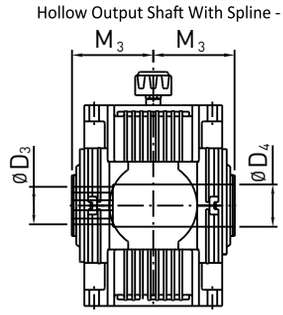
Size	Hollow Shaft (Shrink Disc)		
	D_2	M_3	M_4
19	105	180	300
20	115	190	315
21	125	220	360
22	140	230	395
23	160	260	445
24	180	295	485
25	200	305	515
26	220	345	575

Hollow Output Shaft With Shrink Disc - (D)



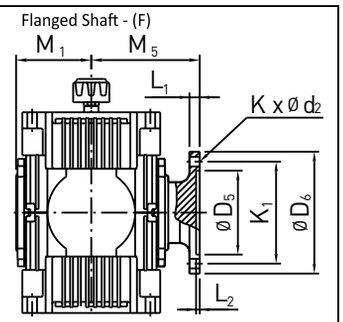
Size	Hollow Shaft (Spline)		
	D_3	D_4	M_3
19	Dimensions on request		
20			
21			
22			
23			
24			
25			
26			

Hollow Output Shaft With Spline - (S)



Size	Flanged Shaft							
	D_5	D_6	K_1	K x Ø d_2	L_1	L_2	M_1	M_5
19	Dimensions on request							
20								
21								
22								
23								
24								
25								
26								

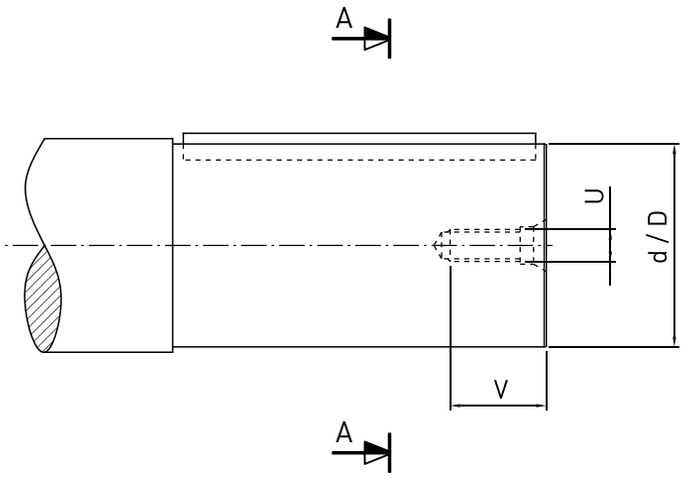
Flanged Shaft - (F)

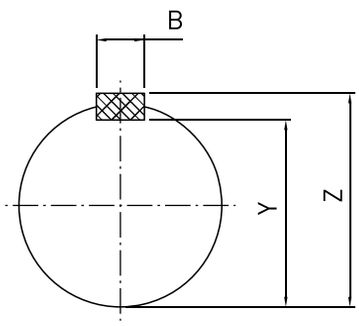


Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, Part 1, Shape A.
Shaft centering according to DIN 332, Shape DS (with thread)
Tolerance field for Shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

Helical / Bevel-Helical / Compact Drive Gear Units

Solid Shaft Extension Details





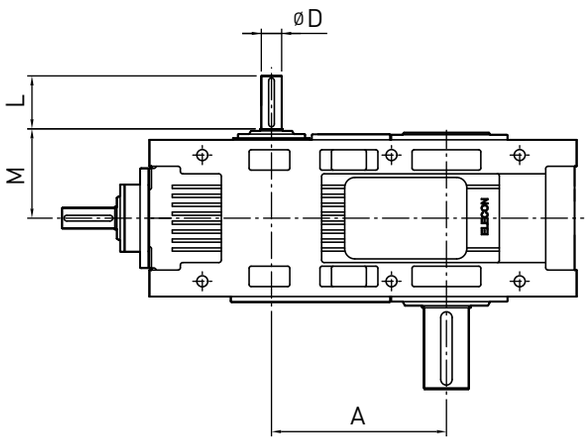
SEC-AA

d / D	B	Y	Z	tol. on Z	U	V
19	6	15.5	21.5	-0.1	M6	16
20	6	16.5	22.5		M6	16
24	8	20	27	-0.2	M8	19
25	8	21	28		M10	22
28	8	24	31		M10	22
30	8	26	33		M10	22
32	10	27	35		M12	28
35	10	30	38		M12	28
38	10	33	41		M12	28
40	12	35	43		M16	36
42	12	37	45		M16	36
45	14	39.5	48.5		M16	36
48	14	42.5	51.5		M16	36
50	14	44.5	53.5		M16	36
52	16	46	56		M20	42
55	16	49	59		M20	42
58	16	52	62		M20	42
60	18	53	64		M20	42
65	18	58	69		M20	42
70	20	62.5	74.5		M20	42
75	20	67.5	79.5		M20	42
80	22	71	85		M20	42
85	22	76	90		M20	42
90	25	81	95		M24	50
95	25	86	100		M24	50
100	28	90	106		M24	50
105	28	95	111		M24	50
110	28	100	116		M24	50
115	32	104	122		M24	50
120	32	109	127		M24	50
130	32	119	137		M24	50
140	36	128	148	-0.3	M30	60
145	36	133	153		M30	60
160	40	147	169		M30	60
170	40	157	179		M36	80
190	45	175	200		M36	80

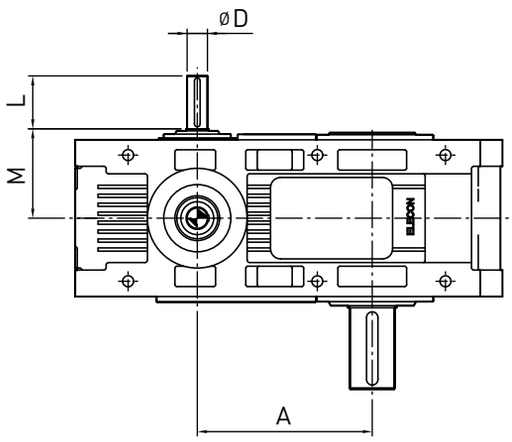
d / D	tol. field	tol
19-30	k6	+0.015 +0.002
32-50	k6	+0.018 +0.002
52-80	m6	+0.030 +0.011
85-120	m6	+0.035 +0.013
140-180	m6	+0.040 +0.015
190-250	m6	+0.046 +0.017

B	tol. field	tol
3 - 6	h9	0 -0.030
8 - 10		0 -0.036
12 - 18		0 -0.043
20 - 28		0 -0.052
32 - 50		0 -0.062

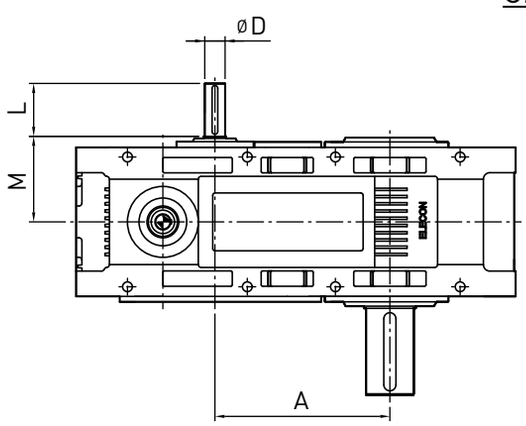
Additional Intermediate Shaft Extension Details



B2 / B3 / B4



C2 / C3



C4

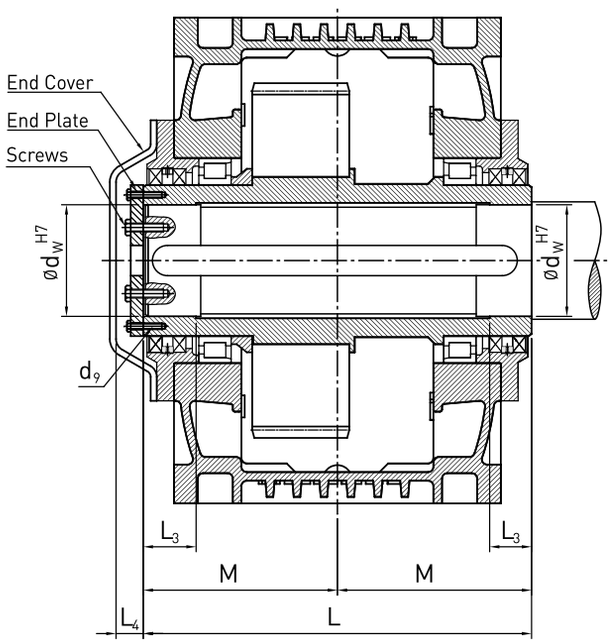
B2/C2				
Size	A	D	L	M
11	80	19	30	105
13	100	24	40	115
15	125	38	60	135
17	160	38	60	150
18	180	52	80	170
20	225	52	80	200
21	250	75	105	220
22	280	75	105	230
23	315	80	130	260
24	355	105	170	295
25	400	105	170	305
26	450	110	170	345

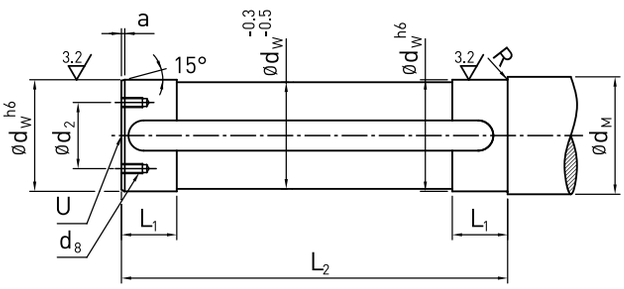
B3/B4/C3/C4				
Size	A	D	L	M
14	190	19	30	125
15	215	24	40	135
16	240	24	50	145
17	270	28	50	150
18	305	35	60	170
19	340	35	60	180
20	385	40	80	200
21	430	58	85	220
22	480	58	85	230
23	540	58	85	260
24	605	90	130	295
25	680	90	130	305
26	765	90	130	345

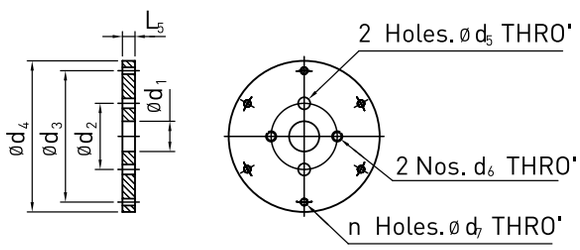
Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, part 1, Shape A.
Shaft centering according to DIN 332, shape DS (with thread)
Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

Helical/Bevel-Helical/Compact Drive Gear Units

Hollow Output Shaft Design with Fitted Key



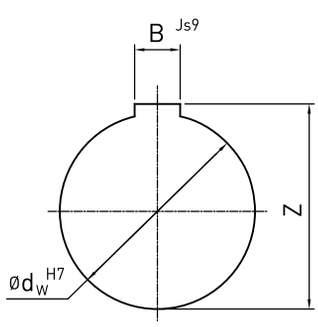




End Plate (Size 13 onwards)

Size	Hollow Shaft						Driven Machine Shaft									End Plate								
	d_w	L	M	L_3	L_4	d_9	d_w	d_M	d_2	d_8	L_1	L_2	a	R	U	d_1	d_2	d_3	d_4	d_5	d_6	d_7	n	L_5
11	35	210	105	30	23	M5 x 9	35	55	-	-	35	207	3	2.5	M10	-	-	-	-	-	-	-	-	-
13	50	230	115	45	23	M5 x 9	50	70	35	M8 x 16	50	227	3	2.5	M16	18	35	60	69.5	9	M8	5.5	4	8
14	55	240	120	50	25	M6 x 12	55	75	40	M8 x 16	55	237	4	2.5	M20	22	40	67.5	79	9	M10	6.6	4	8
15	60	270	135	55	25	M6 x 12	60	80	45	M10 x 20	60	267	4	2.5	M20	22	45	72.5	89	11	M10	6.6	6	8
16	70	290	145	65	25	M6 x 12	70	90	50	M10 x 20	70	287	4	2.5	M20	22	50	85	99	11	M10	6.6	6	8
17	75	300	150	70	30	M6 x 12	75	95	55	M10 x 20	75	297	5	4	M20	22	55	90	109	11	M10	6.6	6	10
18	90	340	170	85	30	M8 x 15	90	110	65	M10 x20	90	337	5	4	M24	26	65	110	129	11	M10	9	4	10
19	105	360	180	100	32	M8 x 15	105	125	70	M12 x 25	105	357	5	4	M24	26	70	120	139	14	M12	9	4	10
20	110	380	190	110	32	M10 x 17	110	135	75	M12 x 25	115	377	5	4	M24	26	75	125	159	14	M12	11	4	12
21	120	440	220	120	32	M10 x 17	120	150	80	M12 x 25	130	437	6	6	M24	26	80	140	169	14	M12	11	4	12

Hollow Shaft Bore Details



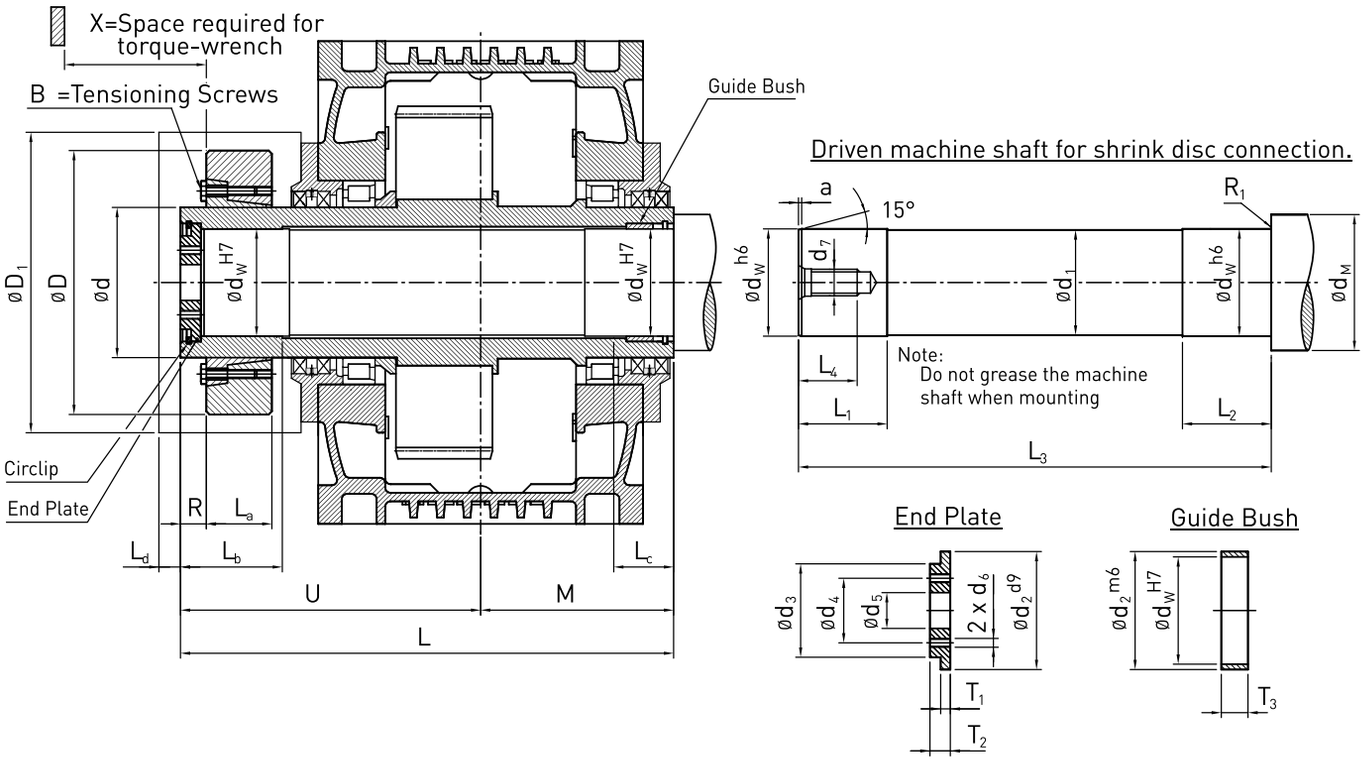
d_w	B	Z	tol. on Z
35	10	38	+0.2
50	14	53.5	
55	16	59	
60	18	64	
70	20	74.5	
75	20	79.5	
90	25	95	
105	28	111	
110	28	116	
120	32	127	

d_w	tol. field	tol
35	H7	+0.025 0
50		
55	H7	+0.030 0
60		
70		
75		
90	H7	+0.035 0
105		
110		
120		

B	tol. field	tol
10	Js9	+0.018 -0.018
12	Js9	+0.022 -0.022
14		
16		
18		
20	Js9	+0.026 -0.026
25		
28		
32	Js9	+0.031 -0.031

Helical/Bevel-Helical/Compact Drive Gear Units Hollow Output Shaft Design with Shrink Disc

Standard Shaft Mounting Position



Driven machine shaft for shrink disc connection.

End Plate

Guide Bush

Size	Hollow Shaft							Shrink Disc									Weight (kg)
	d_w	L	L_b	L_c	U	M	R	Type	D	d	D_1	L_a	L_d	M_t (da Nm)	B	M_a (da Nm)	
14	60	300	50	30	180	120	17	80 - 60	141	80	160	31	20	319	M10	5.8	2.3
15	65	330	55	35	195	135	17	90 - 65	155	90	185	38	20	540	M10	5.8	3.2
16	75	360	65	40	215	145	20	100 - 75	170	100	200	43.5	20	720	M10	5.8	4.3
17	80	380	80	41	230	150	26	110 - 80	185	110	220	49	20	1000	M12	10	5.8
18	95	430	85	44	260	170	27	125 - 95	215	125	290	53.5	20	1650	M12	10	8.7
19	105	460	95	49	280	180	32	140 - 105	230	140	320	58	20	2210	M14	16	10.3
20	115	485	100	49	295	190	33	155 - 115	263	155	350	63	20	2950	M14	16	15.2
21	125	555	120	68	335	220	35	165 - 125	290	165	380	68	25	4120	M16	24	21.5
22	140	600	135	68	370	230	35	180 - 140	320	180	410	85.5	25	6400	M16	24	32.7
23	160	680	155	73	420	260	37	220 - 160	370	220	480	105	25	10300	M20	47	53
24	180	755	160	83	460	295	38	240 - 180	405	240	530	109	25	14000	M20	47	66
25	200	795	180	88	490	305	46	260 - 200	430	260	550	120	25	18400	M20	47	82
26	220	895	190	103	550	345	48	280 - 220	460	280	570	135	25	24000	M20	47	103

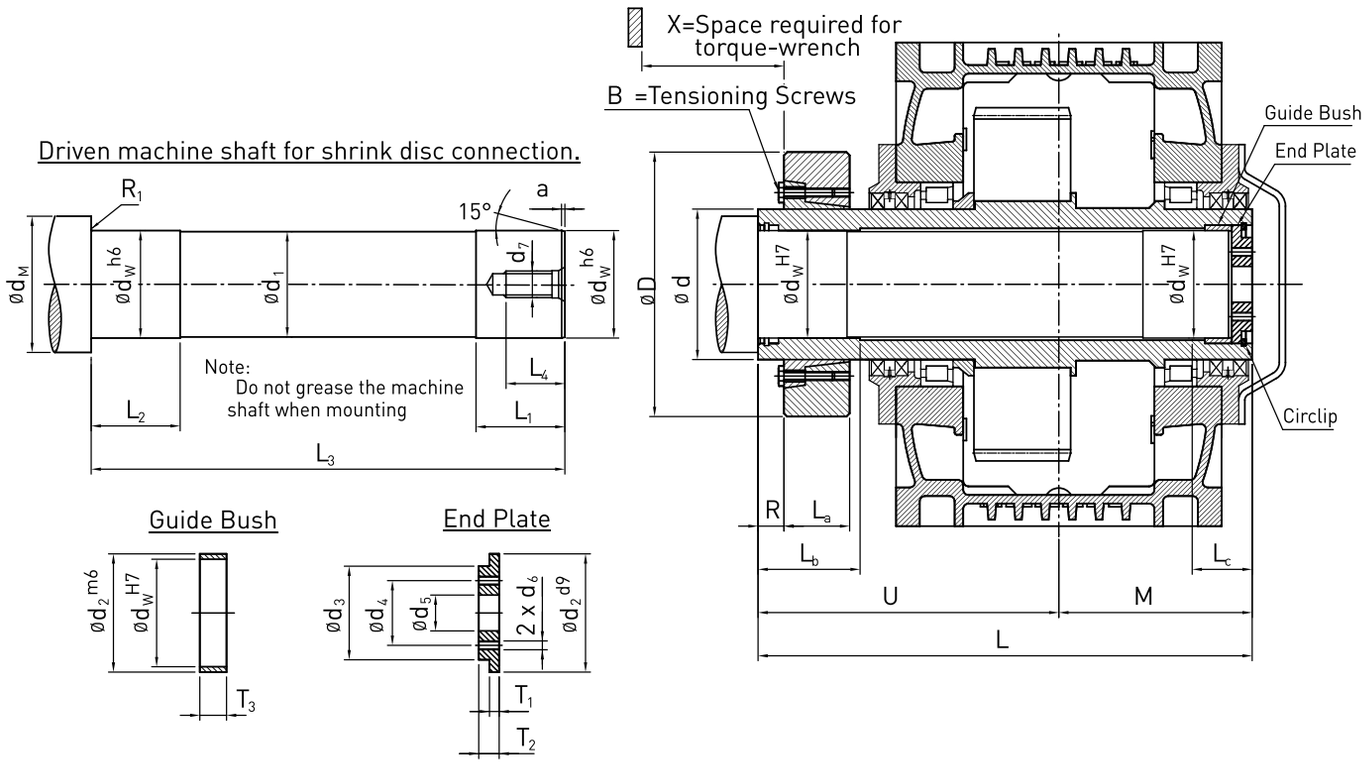
Size	Driven Machine Shaft										End Plate							Guide Bush			
	d_w	d_1	d_m (min)	R_1	L_1	L_2	L_3	L_4	d_7	a	d_2	d_3	d_4	d_5	d_6	T_1	T_2	d_w	d_2	T_3	Circlip
14	60	59.5	80	1.5	45	65	286	42	M20	4	70	50	35	22	M6	5	13	60	70	17	70 x 2.5
15	65	64.5	85	1.5	50	70	316	42	M20	4	75	55	40	22	M8	5	13	65	75	22	75 x 2.5
16	75	74.5	95	1.5	55	75	342	42	M20	4	85	65	45	22	M8	7	17	75	85	23	85 x 3
17	80	79.5	100	1.6	70	90	362	42	M20	5	90	70	50	22	M8	7	17	80	90	24	90 x 3
18	95	94.5	120	1.6	70	90	408	50	M24	5	105	80	55	26	M10	8	20	95	105	24	105 x 4
19	105	104.5	130	1.6	80	100	438	50	M24	5	120	90	60	26	M10	8	20	105	120	29	120 x 4
20	115	114.5	140	1.6	85	105	463	50	M24	5	130	100	65	26	M10	8	20	115	130	29	130 x 4
21	125	124.5	160	2.5	85	110	530	50	M24	6	140	105	65	26	M12	10	23	125	140	45	140 x 4
22	140	139.5	170	2.5	105	130	575	60	M30	6	155	115	75	33	M12	10	23	140	155	45	155 x 4
23	160	159.5	190	2.5	130	155	655	60	M30	6	175	120	80	33	M12	10	23	160	175	50	175 x 4
24	180	179.5	210	2.5	130	160	725	60	M30	6	195	125	85	33	M16	12	28	180	195	55	195 x 4
25	200	199.5	240	4	150	180	765	60	M30	8	220	140	95	33	M16	12	28	200	220	60	220 x 5
26	220	219.5	260	4	165	195	865	80	M36	8	240	160	110	39	M20	12	28	220	240	75	240 x 5

M_a = Required tightening torque.
M_t = Maximum torque transmitted by shrink disc.

Helical/Bevel-Helical/Compact Drive Gear Units

Hollow Output Shaft Design with Shrink Disc

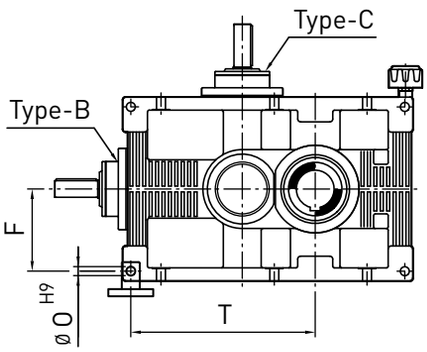
Alternate Shaft Mounting Option



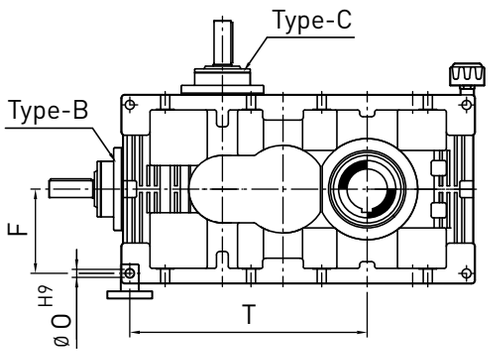
Size	Hollow Shaft							Shrink Disc									
	d_w	L	L_b	L_c	U	M	R	Type	D	d	L_a	L_d	M_t (da Nm)	B	M_a (da Nm)	Weight (kg)
14	60	300	50	30	180	120	17	80 - 60	141	80	31	25	319	M10	5.8	2.3
15	65	330	55	35	195	135	17	90 - 65	155	90	38	25	540	M10	5.8	3.2
16	75	360	65	40	215	145	20	100 - 75	170	100	43.5	25	720	M10	5.8	4.3
17	80	380	80	41	230	150	26	110 - 80	185	110	49	30	1000	M12	10	5.8
18	95	430	85	44	260	170	27	125 - 95	215	125	53.5	30	1650	M12	10	8.7
19	105	460	95	49	280	180	32	140 - 105	230	140	58	32	2210	M14	16	10.3
20	115	485	100	49	295	190	33	155 - 115	263	155	63	32	2950	M14	16	15.2
21	125	555	120	68	335	220	35	165 - 125	290	165	68	32	4120	M16	24	21.5
22	140	600	135	68	370	230	35	180 - 140	320	180	85.5	40	6400	M16	24	32.7
23	160	680	155	73	420	260	37	220 - 160	370	220	105	40	10300	M20	47	53
24	180	755	160	83	460	295	38	240 - 180	405	240	109	40	14000	M20	47	66
25	200	795	180	88	490	305	46	260 - 200	430	260	120	40	18400	M20	47	82
26	220	895	190	103	550	345	48	280 - 220	460	280	135	40	24000	M20	47	103

Size	Driven Machine Shaft										End Plate							Guide Bush			
	d_w	d_1	d_m (min)	R_1	L_1	L_2	L_3	L_4	d_7	a	d_2	d_3	d_4	d_5	d_6	T_1	T_2	d_w	d_2	T_3	Circlip
14	60	59.5	80	1.5	45	65	286	42	M20	4	70	50	35	22	M6	5	13	60	70	17	70 x 2.5
15	65	64.5	85	1.5	50	70	316	42	M20	4	75	55	40	22	M8	5	13	65	75	22	75 x 2.5
16	75	74.5	95	1.5	55	75	342	42	M20	4	85	65	45	22	M8	7	17	75	85	23	85 x 3
17	80	79.5	100	1.6	70	90	362	42	M20	5	90	70	50	22	M8	7	17	80	90	24	90 x 3
18	95	94.5	120	1.6	70	90	408	50	M24	5	105	80	55	26	M10	8	20	95	105	24	105 x 4
19	105	104.5	130	1.6	80	100	438	50	M24	5	120	90	60	26	M10	8	20	105	120	29	120 x 4
20	115	114.5	140	1.6	85	105	463	50	M24	5	130	100	65	26	M10	8	20	115	130	29	130 x 4
21	125	124.5	160	2.5	85	110	530	50	M24	6	140	105	65	26	M12	10	23	125	140	45	140 x 4
22	140	139.5	170	2.5	105	130	575	60	M30	6	155	115	75	33	M12	10	23	140	155	45	155 x 4
23	160	159.5	190	2.5	130	155	655	60	M30	6	175	120	80	33	M12	10	23	160	175	50	175 x 4
24	180	179.5	210	2.5	130	160	725	60	M30	6	195	125	85	33	M16	12	28	180	195	55	195 x 4
25	200	199.5	240	4	150	180	765	60	M30	8	220	140	95	33	M16	12	28	200	220	60	220 x 5
26	220	219.5	260	4	165	195	865	80	M36	8	240	160	110	39	M20	12	28	220	240	75	240 x 5

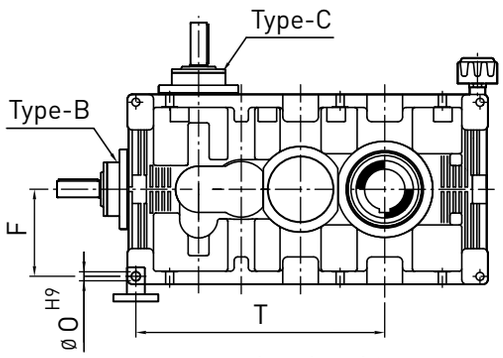
M_a = Required tightening torque.
M_t = Maximum torque transmitted by shrink disc.



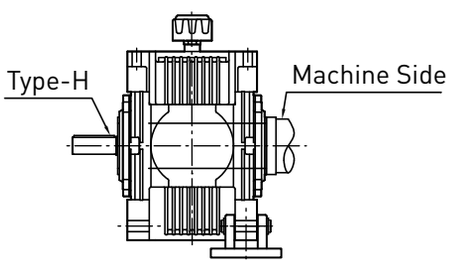
H1 / B2 / C2



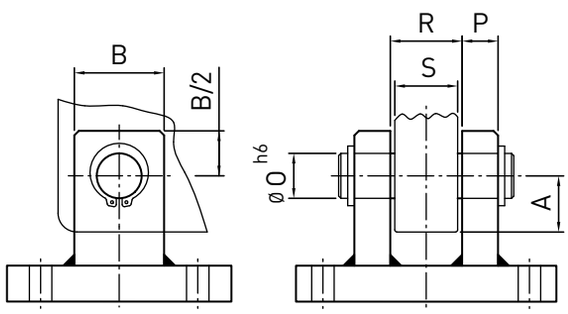
H2 / B3 / C3



H3 / H4 / B4 / C4



Torque Arm on Driven Machine Side



Torque Reaction Arm Details
(Torque Arm not supplied by Elecon)

H1 / B2 / C2

Size	F	T	O
11	80	200	10
13	105	266	15
15	135	321	18
17	175	402	20
18	200	448	24
20	250	563	28
21	285	630	28
22	320	694	36
23	360	787	40
24	400	861	48
25	450	958	48
26	505	1082	55

H2 / B3 / C3

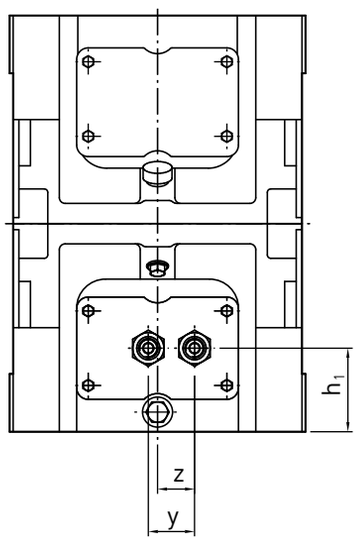
Size	F	T	O
14	100	310	18
15	115	355	18
16	135	402	20
17	155	455	20
18	175	507	24
19	200	560	24
20	220	631	28
21	250	705	28
22	280	785	36
23	315	895	40
24	350	993	48
25	400	1092	48
26	445	1235	55

H3 / H4 / B4 / C4

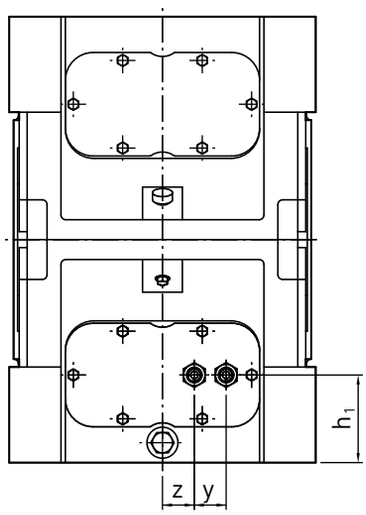
Size	F	T	O
16	135	418	20
17	155	465	20
18	175	529	24
19	200	596	24
20	220	673	28
21	250	750	28
22	280	835	36
23	315	935	40
24	350	1045	48
25	400	1176	48
26	445	1335	55

Size	O	A	B	P	R	S
11	10	20	20	10		
13	15	20	26	12		
14	18	25	30	12	39	36
15	18	25	30	12	48	45
16	20	25	32	16	41	38
17	20	25	32	16	43	40
18	24	25	40	20	48	45
19	24	25	40	20	52	48.5
20	28	30	45	25	50	45
21	28	30	45	25	70	65
22	36	35	60	32	65	60
23	40	40	65	36	75	70
24	48	50	80	40	92.5	87.5
25	48	50	80	40	85	80
26	55	55	90	45	105	100

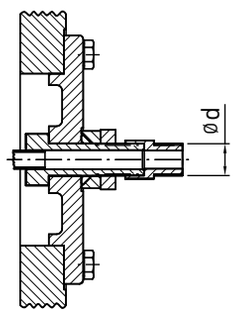
Modification of dimensions reserved.



Size 17



Size 18 and above



Cooling Coil Connections

Size	H1			
	d	h_1 2)	y	z
11	Dimensions on request			
13				
15				
17				
18				
20				
21				
22				
23				
24				
25				
26				

Size	H2,H3,H4,B2,B3,B4,C2,C3 & C4			
	d	h_1 2)	y	z
11	Dimensions on request			
13				
14				
15				
16				
17	3/8"	75	40	32
18	3/8"	88	40	28
19	3/8"	88	40	28
20	3/8"	88	40	28
21	3/8"	110	40	40
22	3/8"	110	40	40
23	3/8"	110	40	40
24	1/2"	125	60	53
25	1/2"	125	60	53
26	1/2"	125	60	53

Built-in cooling coils of normal design suitable for fresh water.
(mains and recirculated water not to be chemically polluted)
Sea water and brackish water require cooling coils of special design.
Maximum permissible pressure of water : 8 bar.
The direction of flow of the water is optional.
Contact thermometers and water control valves can also be offered.

2) Approximate values; exact values acc. to order related documents

GD Square Values (kg-m^2) - H1, H2, H3, H4

Type	i_N	Gear unit Size														
		11	13	14	15	16	17	18	19	20	21	22	23	24	25	26
H1	1.25	0.0110	0.0381	-	0.1171	-	0.3736	0.6788	-	1.9447	3.1712	5.4903	-	-	-	-
	1.4	0.0096	0.0331	-	0.1034	-	0.3256	0.5967	-	1.7091	2.8137	4.8453	-	-	-	-
	1.6	0.0084	0.0288	-	0.0914	-	0.2838	0.5246	-	1.5021	2.4966	4.2761	7.5047	13.7072	24.5190	-
	1.8	0.0074	0.0251	-	0.0807	-	0.2474	0.4611	-	1.3202	2.2152	3.7737	6.4097	12.0608	21.4817	38.8289
	2	0.0066	0.0225	-	0.0728	-	0.2229	0.4115	-	1.1754	1.9670	3.3594	5.9417	10.7405	19.2453	34.7051
	2.24	0.0057	0.0201	-	0.0642	-	0.1974	0.3624	-	1.0437	1.7430	2.9678	5.2070	9.4628	17.1708	30.7868
	2.5	0.0053	0.0176	-	0.0578	-	0.1775	0.3236	-	0.9308	1.5483	2.6808	4.6199	8.3181	15.0927	27.4575
	2.8	0.0047	0.0155	-	0.0507	-	0.1563	0.2618	-	0.8321	1.3719	2.3846	4.1078	7.3197	13.4406	23.9837
	3.15	0.0042	0.0138	-	0.0455	-	0.1389	0.2513	-	0.7322	1.2101	2.0733	3.6029	6.4733	11.7963	21.1103
	3.55	0.0033	0.0111	-	0.0344	-	0.1085	0.1937	-	0.5787	0.9804	1.6860	2.9046	5.4212	9.7838	17.7320
	4	0.0029	0.0098	-	0.0296	-	0.0947	0.1688	-	0.4977	0.8441	1.4502	2.5070	4.7576	8.5308	15.4682
	4.5	0.0026	0.0084	-	0.0257	-	0.0807	0.1451	-	0.4344	0.7397	1.2788	2.1729	4.0887	7.4270	13.3917
	5	0.0023	0.0074	-	0.0224	-	0.0708	0.1269	-	0.3794	0.6393	1.0965	1.8998	3.5340	6.3119	11.3897
H2	5.6	-	-	0.0158	0.0295	0.0530	0.0970	0.1754	0.2827	0.5422	0.9295	1.5542	3.0090	5.1498	9.2019	16.2044
	6.3	-	-	0.0135	0.0254	0.0449	0.0824	0.1491	0.2450	0.4536	0.8105	1.3527	2.5445	4.3722	7.6863	13.5713
	7.1	-	-	0.0116	0.0218	0.0380	0.0699	0.1268	0.2123	0.3795	0.7067	1.1774	2.1516	3.7121	6.4203	11.3660
	8	-	-	0.0099	0.0188	0.0330	0.0611	0.1113	0.1842	0.3272	0.9962	0.9962	1.8209	3.1782	5.5056	9.7374
	9	-	-	0.0078	0.0150	0.0261	0.0489	0.0887	0.1475	0.2624	0.4778	0.7890	1.4477	2.4744	4.3944	7.5695
	10	-	-	0.0074	0.0143	0.0249	0.0468	0.0848	0.1409	0.2501	0.4563	0.7520	1.3820	2.3663	4.1903	7.1912
	11.2	-	-	0.0059	0.0114	0.0198	0.0375	0.0675	0.1122	0.2016	0.3705	0.5906	1.0835	1.8389	3.2372	5.6135
	12.5	-	-	0.0057	0.0110	0.0191	0.0363	0.0651	0.1082	0.1938	0.3570	0.5672	1.0421	1.7708	3.1086	5.3753
	14	-	-	0.0045	0.0086	0.0155	0.0261	0.0482	0.0809	0.1461	0.2621	0.4412	0.8091	1.4061	2.4413	4.2239
	16	-	-	0.0039	0.0074	0.0134	0.0225	0.0416	0.0710	0.1280	0.2276	0.3791	0.6932	1.2030	2.0904	3.5957
	18	-	-	0.0030	0.0056	0.0102	0.0170	0.0315	0.0533	0.0968	0.1761	0.2916	0.5363	0.9437	1.6269	2.7644
	20	-	-	0.0029	-	0.0099	0.0164	0.0588	0.0516	0.0936	0.3453	0.2823	0.5199	1.8413	1.5759	2.6699
	22.4	-	-	0.0026	-	0.0077	0.0128	0.0535	0.0444	0.0744	0.3005	0.2192	0.4130	1.4295	1.2269	2.1566
H3	25	-	-	-	-	On Request	0.0225	0.0413	0.0705	0.1263	0.2308	0.3925	0.7303	1.3073	2.1930	3.9525
	28	-	-	-	-		0.0195	0.0355	0.0608	0.1093	0.2000	0.3390	0.6258	1.1173	1.8748	3.3368
	31.5	-	-	-	-		0.0198	0.0360	0.0615	0.1090	0.2008	0.3403	0.6398	1.1490	1.8940	3.4198
	35.5	-	-	-	-		0.0140	0.0260	0.0443	0.0808	0.1473	0.2498	0.4603	0.8165	1.3610	2.5735
	40	-	-	-	-		0.0110	0.0200	0.0343	0.0653	0.1150	0.1948	0.3605	0.6355	1.0770	1.9133
	45	-	-	-	-		0.0103	0.0190	0.0323	0.0618	0.1085	0.1878	0.3395	0.5988	0.9855	1.7985
	50	-	-	-	-		0.0080	0.0150	0.0263	0.0440	0.0823	0.1415	0.2623	0.4643	0.7860	3.7035
	56	-	-	-	-		0.0068	0.0128	0.0220	0.0380	0.0700	0.1218	0.2243	0.3945	0.6665	3.2085
	63	-	-	-	-		0.0073	0.0138	0.0240	0.0395	0.0748	0.1280	0.2390	0.4235	0.7093	1.2845
	71	-	-	-	-		0.0063	0.0115	0.0200	0.0345	0.0640	0.1110	0.2058	0.3623	0.6058	1.0883
	80	-	-	-	-		0.0053	0.0098	0.0178	0.0288	0.0545	0.0930	0.1750	0.3115	0.5100	0.9308
	90	-	-	-	-		0.0053	On Request	0.0150	0.0248	0.0386	0.0798	0.1520	0.2182	0.4403	0.8135
	100	-	-	-	-		0.0045		0.0148	0.0245	0.0353	0.0793	0.1510	0.2013	0.4420	0.8073
	112	-	-	-	-		0.0038		0.0118	0.0200	0.0324	0.0640	0.1215	0.1857	0.3620	0.6558
H4	125	-	-	-	-	-	-		On Request	0.0162	0.0297	0.0510	0.0936	0.1713	0.2862	0.5244
	140	-	-	-	-	-	-			0.0135	0.0252	0.0432	0.0852	0.1452	0.2454	0.4509
	160	-	-	-	-	-	-			0.0132	0.0246	0.0423	0.0831	0.1419	0.2394	0.4401
	180	-	-	-	-	-	-			0.0105	0.0195	0.0342	0.0609	0.1077	0.1845	0.3405
	200	-	-	-	-	-	-			0.0126	0.0237	0.0408	0.0804	0.1368	0.2301	0.4233
	224	-	-	-	-	-	-			0.0102	0.0189	0.0330	0.0585	0.1038	0.1773	0.3273
	250	-	-	-	-	-	-			0.0129	0.0240	0.0408	0.0741	0.1368	0.2265	0.4185
	280	-	-	-	-	-	-			0.0111	0.0204	0.0354	0.0696	0.1182	0.1980	0.3675
	315	-	-	-	-	-	-			0.0090	0.0162	0.0288	0.0501	0.0891	0.1521	0.2832
	355	-	-	-	-	-	-			0.0075	0.0138	0.0243	0.0429	0.0762	0.1323	0.2445
	400	-	-	-	-	-	-			0.0063	0.0117	0.0213	0.0360	0.0654	0.1107	0.2079
	450	-	-	-	-	-	-			0.0063	0.0114	0.0204	0.0342	0.0651	0.1107	0.2076
	500	-	-	-	-	-	-	-		0.0057	-	0.0174	0.0288	-	0.0951	0.1806
	560	-	-	-	-	-	-	-		0.0045	-	0.0138	0.0240	-	0.0771	0.1455

GD Square Values (kg-m2) - B2, B3, B4 / C2, C3, C4

Type	i_N	Gear unit Size														
		11	13	14	15	16	17	18	19	20	21	22	23	24	25	26
B2 C2	5	-	-	-	0.0329	-	-	0.2005	-	-	1.1220	-	-	6.4715	-	-
	5.6	-	0.0114	-	0.0318	-	-	0.1929	-	-	1.0842	1.8418	-	6.2213	10.9504	-
	6.3	0.0038	0.0110	-	0.0306	-	0.1044	0.1856	-	0.5898	1.0478	1.7804	3.2670	5.9807	10.5095	20.1875
	7.1	0.0038	0.0105	-	0.0296	-	0.1001	0.1785	-	0.5673	1.0125	1.7210	3.1574	5.7494	10.0863	19.5288
	8	0.0036	0.0102	-	0.0285	-	0.0968	0.1724	-	0.5483	0.9789	1.6631	3.0548	5.5805	9.7674	18.9378
	9	0.0030	0.0083	-	0.0233	-	0.0783	0.1409	-	0.4449	0.7886	1.3380	2.4473	4.4955	7.8683	15.2442
	10	0.0024	0.0069	-	0.0192	-	0.0644	0.1164	-	0.3663	0.6435	1.0830	1.9863	3.6575	6.4106	12.4238
	11.2	0.0021	0.0057	-	0.0158	-	0.0525	0.0963	-	0.3015	0.5253	0.8841	1.6217	2.9885	5.2424	10.1013
	12.5	0.0018	0.0048	-	0.0131	-	0.0435	0.0807	-	0.2499	0.4317	0.7197	1.3122	2.4492	4.2938	8.2713
	14	0.0015	0.0041	-	0.0108	-	0.0362	0.0680	-	0.2100	0.3567	0.5903	1.0761	2.0273	3.5610	6.8516
	16	0.0014	0.0035	-	0.0092	-	0.0299	0.0567	-	0.1754	0.2991	0.4905	0.8919	1.6979	2.9880	5.7323
	18	0.0012	0.0030	-	0.0078	-	0.0254	0.0485	-	0.1488	0.2487	0.4044	0.7304	1.4079	2.4804	4.8758
	20	0.0011	0.0027	-	0.0173	-	0.0222	0.0870	-	0.1310	0.5048	0.3491	0.6252	2.9313	2.1473	4.1493
	22.4	0.0009	-	-	0.0165	0.0285	0.0194	0.0803	0.1498	0.1152	0.4795	0.8760	0.5352	2.7888	4.7188	3.5311
B3 C3	25	-	-	0.0078	0.0130	0.0228	0.0388	0.0648	0.1180	0.2135	0.3815	0.6983	1.2320	2.1905	3.5663	6.6940
	28	-	-	0.0090	0.0153	0.0268	0.0415	0.0760	0.1383	0.2488	0.4418	0.8095	1.4475	2.5883	4.3400	7.9568
	31.5	-	-	0.0073	0.0120	0.0213	0.0323	0.0595	0.1090	0.1963	0.3515	0.6458	1.1413	2.0323	3.4060	6.1613
	35.5	-	-	0.0060	0.0098	0.0173	0.0265	0.0485	0.0885	0.1595	0.2863	0.5233	0.9300	1.6493	2.7660	5.0145
	40	-	-	0.0050	0.0080	0.0140	0.0215	0.0395	0.0718	0.1293	0.2340	0.4258	0.7548	1.3283	2.2255	4.0178
	45	-	-	0.0040	0.0065	0.0118	0.0175	0.0325	0.0588	0.1060	0.1935	0.3538	0.6210	1.0838	1.8013	3.2613
	50	-	-	0.0035	0.0055	0.0098	0.0145	0.0268	0.0483	0.0865	0.1603	0.2938	0.5110	0.8845	1.4708	2.6635
	56	-	-	0.0030	0.0045	0.0080	0.0120	0.0223	0.0398	0.0718	0.1340	0.2460	0.4233	0.7268	1.1975	2.1560
	63	-	-	0.0025	0.0038	0.0068	0.0100	0.0183	0.0335	0.0598	0.1130	0.2083	0.3553	0.6000	0.9820	1.7690
	71	-	-	0.0023	0.0033	0.0058	0.0085	0.0153	0.0278	0.0493	0.0943	0.1740	0.2965	0.5030	0.8160	1.4675
	80	-	-	0.0023	-	0.0058	0.0083	0.0234	0.0275	0.0490	0.1057	0.1730	0.2948	0.6429	0.8108	1.4575
	90	-	-	0.0020	-	0.0050	0.0073	0.0188	0.0238	0.0418	0.0847	0.1495	0.2498	0.5002	0.6688	1.1943
	100	-	-	0.0018	-	-	0.0063	0.0150	0.0210	0.0365	0.0678	0.1293	0.2198	0.3891	0.6774	1.0233
B4 C4	112	-	-	-	-	-	0.0093	0.0120	0.0168	0.0306	0.0543	0.0972	0.1716	0.3027	0.5274	0.9471
	125	-	-	-	-	-	0.0087	0.0108	0.0147	0.0270	0.0480	0.0855	0.1515	0.2661	0.4665	0.8379
	140	-	-	-	-	-	0.0099	0.0117	0.0150	0.0276	0.0483	0.0939	0.1599	0.2745	0.4833	0.8631
	160	-	-	-	-	-	0.0078	0.0093	0.0120	0.0219	0.0393	0.0693	0.1218	0.2124	0.3744	0.6711
	180	-	-	-	-	-	0.0093	0.0105	0.0126	0.0234	0.0414	0.0810	0.1359	0.2313	0.4101	0.7293
	200	-	-	-	-	-	0.0075	0.0084	0.0102	0.0186	0.0336	0.0591	0.1032	0.1782	0.3171	0.5658
	224	-	-	-	-	-	0.0051	0.0057	0.0072	0.0129	0.0234	0.0402	0.0726	0.1257	0.2268	0.4020
	250	-	-	-	-	-	0.0048	0.0054	0.0066	0.0120	0.0219	0.0372	0.0675	0.1161	0.2109	0.3729
	280	-	-	-	-	-	0.0048	0.0054	0.0063	0.0114	0.0207	0.0351	0.0633	0.1083	0.1977	0.3486
	315	-	-	-	-	-	0.0048	0.0051	0.0060	0.0108	0.0195	0.0330	0.0597	0.1023	0.1875	0.3300
	355	-	-	-	-	-	0.0048	0.0051	0.0057	0.0102	0.0186	0.0315	0.0570	0.0978	0.1794	0.3156
	400	-	-	-	-	-	0.0045	0.0048	0.0054	0.0099	0.0180	0.0303	0.0549	0.0936	0.1725	0.3027
	450	-	-	-	-	-	0.0045	-	0.0054	0.0099	-	0.0303	0.0546	-	0.1722	0.3024
	500	-	-	-	-	-	0.0045	-	0.0051	0.0096	-	0.0294	0.0534	-	0.1680	0.2943
	560	-	-	-	-	-	0.0039	-	0.0045	0.0081	-	0.0246	0.0426	-	0.1353	0.2538

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