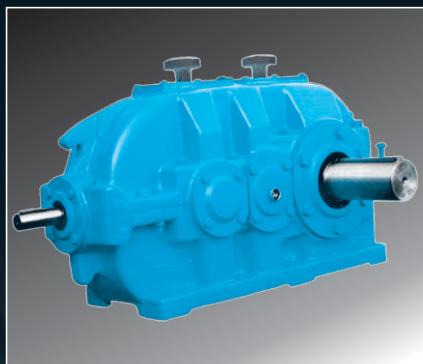




Power Transmission Equipments

D / R
Series

MODULAR GEAR UNITS



OMEX



Dharam Power Transmission Equipments Pvt. Ltd.

Company Profile

About Us

Our Company, Dharam Power Transmission Equipments Pvt. Ltd. specializes in the design, development, production and marketing of high quality Power Transmission Equipments, to the highest specifications, with proven performance in diverse industries across the globe. An accent on quality combined with ongoing research and development has given us international reputation for excellence. Despite this growth, we ensure that our customers receive due attention, with higher quality products and scheduled deliveries. As a customer focus & technology driven organization offering quality products & services is our forte. By updating technology & infrastructure, we have continued to deliver high value products to our customers.

Our Products Range

Our gears & gear boxes are widely available under the brand name "OMEX". Maintaining the pace with time, we have carved a niche for ourselves within the industry. We are an established manufacturer, exporter & OEM (Original Equipment Manufacturer) supplier of a wide range of industrial gears, gearboxes and custom made gears.

Our wide line of products include:

- Industrial Gears
- Helical Gear Boxes
- Worm Gear Boxes
- Gear Cases
- Worm/Worm Wheels
- Wheel Shafts
- Extruder Gear Boxes
- Bevel Helical Gear Boxes
- Gear Couplings.

Our Quality

At Dharam Power, high quality standards pervade every aspect of our operations. Quality is an integral element at every stage - designing, development, engineering, production and planning process. By integrating our streamlined production methodologies with a strong quality focus, we are able to manufacture products at par with established international standards. Therefore, right from product planning, selecting of raw materials, production, quality inspection & other quality control methods like Profile Grinding of Gear, Special Heat Treatment of Material. The Teamwork Management is held for the whole process of gear making. Stringent quality management system is backed by strong regulatory standards that ensures that we maintain an unwavering focus on excellence throughout our products and processes. Consistent improvement is a requirement rather than an option with us.

Machinery Used

In our company, the machinery used are well working with great accuracy results. Certain machinery we use in our company are generally Swiss made or made in Germany.

Our wide line of machinery includes

- Reishaur Gear Grinders
- Gear Grinders up to capacity of 1200 mm
- Surface Grinders
- Cylindrical Grinders
- Bore Grinders
- Gear Hobbing up to capacity of 2000 mm
- Boring Machines
- Horizontal machining centers
- Turning Centers



OMEX

Contents

Characteristic and Advantages of the D/R - SERIES MODULAR GEAR UNITS

Modular design principle

Gear sizes, transmission ratios and main dimensions according to standard series of numbers, economic mass production, comprehensive maintenance of stocks, favourable delivery periods, easy servicing, low weight, compact design with high efficiency due to case-hardened steels of the highest strength, amply dimensioned bearings, very smooth running with low noise due to ground helical gears and lapped high precision spiral bevel gears, housing of vibration-damping design of grey cast iron, the use of the most up-to-date machining equipment with constant production control by means of the most recent measuring machines.

OMEX D/R - Series modular gear units are the result of decades of experience in design and production, taking advantage of the most recent relevant research in the field of gearing technology.

General information

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 P_N , 100% duration of operation, ambient temperature 20° 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).

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
98% for single reduction
bevel 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

Dimensions, weight, oil quantity

The figures are not strictly binding. We reserve the right to modify dimensions. The indicated weight and oil quantities are average values. When filling gear unit with oil, note oil level markings.

Additional equipment

The housing can be made of nodular cast iron or of fabricated steel. Additional heating cartridges can be built into the housings. Special seals may be provided when the plant has to be set up in dusty or humid surroundings.

Mounting

Before the gear unit is set up the operating instructions should be studied and followed. Inclined positions for installation are possible on request. The plant user should provide protection covers on rotating parts.

Noise level :

Allowable noise level is generally as mentioned below

- (a) Gearbox with C.I. housing: 85 d B
- (b) Gearbox with fabricated housing: 90 d B
- (c) Gearbox with fan or built in pump will have 5 d B higher than (a) & (b).

Vibration level :

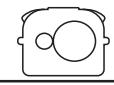
Allowable vibration limits is generally as per VDI-2056 group 'T'

Selection of gear

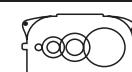
Single reduction
helical gear DAN
 $i_N = 1.6$ to 6.3



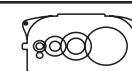
Double reduction
helical gear DBN
 $i_N = 6.3$ to 22.4



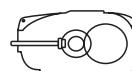
Triple reduction
helical gear DCN
 $i_N = 14$ to 112



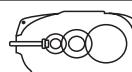
Quadruple reduction
helical gear DDN
 $i_N = 112$ to 630



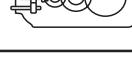
Double reduction bevel
helical gear RBN
 $i_N = 6.3$ to 18



Triple reduction bevel
helical gear RCN
 $i_N = 14$ to 100



Quadruple reduction bevel
helical gear RDN
 $i_N = 100$ to 630



**Hollow shaft design
with shrink disc
Machine Shafts**



Selection of OMEX-D/R SERIES gear units

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

$$P_N \pm P_e \times f \quad 'f' \text{ from tables 1,2 and 4}$$

- 2.2 Cheking starting torque

$$\frac{M_k \cdot n_1}{P_N \cdot 955} \leq 2.5$$

3. Checking heating effects

- 3.1 Gear unit without additional cooling when

$$P_e \leq P_{G1} \times f_w$$

- 3.2 Gear unit with fan possible when

$$P_e \leq P_{G2} \times f_w$$

- 3.3 Gear unit with built-in cooling coil possible when

$$P_e \leq P_{G3} \times f_w$$

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

$$P_e \leq P_{G4} \times f_w$$

- 3.5 Gear unit with external oil cooler necessary when

$$P_e \pm P_{G4} \times f_w$$

Example of calculation

Given

Prime mover :

electric motor, $P_{\text{motor}} = 1000[\text{kW}]$; $n_1 = 1500 [\text{rpm}]$;
2 fold starting torque $M_k = 1273 [\text{da Nm}]$

Working machine :

Heavy rubber-belt conveyor

Power demand : $P_e = 950 [\text{kW}]$

Speed : $n_2 = 60 [\text{rpm}]$;

Period of operation : 16 hours per day

Starts : 1 per hour

Running duration per hour : $E_D = 100 [\%]$

Ambient temperature : $40 [{}^{\circ}\text{C}]$

Design of gear :

Bevel helical gear

Required :

Type and size of gear box

Design :

1. Determination of the gear box type

- 1.1 Bevel helical gear is specified

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

Selected : Gear box type RCN, triple reduction bevel helical gears.

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 [° C]

E_D = running period [%], e.g. $E_D = 80\%$

P_{G1} = Thermal capacity without additional cooling at $t=20^{\circ}\text{C}$; $E_D = 100$ (see power table)

P_{G2} = Thermal capacity with fan

P_{G3} = Thermal capacity with built-in cooling coil

P_{G4} = Thermal capacity with built-in cooling coil and fan

M_k = Starting torque or max. input torque [da Nm]

2. Determination of gear box size

- 2.1 Operating factor : 'f' from tables 1 and 2 = 1.50

- 2.2 Required nominal gear box rating :

$$P_N = P_e \times f = 950 [\text{kW}] \times 1.5 = 1425 [\text{kW}]$$

- 2.3 From power table select RCN gear box size 560

with $P_N = 1460 [\text{kW}]$

$$2.4 \quad P_N \pm P_e \times f, \text{ as } 1460 [\text{kW}] \pm 950 [\text{kW}] \times 1.5 = 1425 [\text{kW}]$$

- 2.5 Checking starting torque

$$\frac{M_k \cdot n_1}{P_N \cdot 955} \leq 2.5 = \frac{1273[\text{da Nm}] \cdot 1500 [\text{rpm}]}{1460 [\text{kW}] \cdot 955} = 1.37$$

3. Check for heating

- 3.1 From table 3

$f_w = 0.75$ for gear unit without additional cooling

$P_e \pm P_{G1} \times f_w$, as $950 [\text{kW}] \pm 485 [\text{kW}] \times 0.75 = 364 [\text{kW}]$, i.e., additional cooling is required.

- 3.2 From table 3

$f_w = 0.8$ for gear unit with fan cooling

$P_e \pm P_{G2} \times f_w$, as $950 [\text{kW}] \pm 1160 [\text{kW}] \times 0.8 = 928 [\text{kW}]$, i.e., fan cooling is not sufficient.

- 3.3 From table 3

$f_w = 0.85$ for gear unit with cooling coil

$P_e \pm P_{G3} \times f_w$, as $950 [\text{kW}] \pm 685 [\text{kW}] \times 0.85 = 582 [\text{kW}]$, i.e., a cooling coil is not sufficient.

- 3.4 From table 3

$f_w = 0.83$ for gear unit with fan and additional cooling coil

$P_e \pm P_{G4} \times f_w$, as $950 [\text{kW}] \pm 1360 [\text{kW}] \times 0.83 = 1129 [\text{kW}]$

- 3.5 The RCN 560 gear unit, $i_N = 25:1$ requires fan and cooling coil.

Operating factors

Table 1		Load parameters			
Driven machines	Driven machines	Driven machines			
Excavators and stackers	Impeller blowers	G	-- wet	S**	
Bucket chain excavators	Turbo blowers	G	-- suction	S**	
Travelling gear	Centrifugal blowers	G	Suction rollers	S**	
--- caterpillar track	Generators		Drying cylinders	S**	
--- rail	M	Generators, under uniform load	G	Pumps	
Bucket-wheel stackers	Welding generators	***	Proportioning pumps	M	
Bucket wheels	Rubber and Plastics		Piston pumps		
--- clearing	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	Decorictating 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 Kilns	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 straightening machine	M**
Medium and heavy load		Pendulum mills	H**	Roller gear beds	
Shaft - sinking machines	S*	Impact mills	H**	---	M**
Bucket conveyors	M	Tube mills	H**	---	S**
Bucket belts	M**	Beating mills	H**	Shears	
Assembly line conveyors	M	Rod mills	H**	---	S**
Conveyors winders	M**	Roller mills	H**	---	M**
Conveyors	S*	Foodstuffs machines		---	
Belt Conveyors	M	Filling machines	G	billet	S**
Chain Conveyors	M	Kneading machines	M	cropping	S**
Goods lifts	M	Packing machines	G	---	M**
Passenger lifts	***	Weighing machines	M	plate trimming	M**
Apron conveyors	M	Sugarcane crushers	M**	Winding tractor	M**
Shaker conveyors	M	Sugarcane mills	S**	Continuous casting plants	S**
Worm conveyors	M	Sugarcane Cutters	M**	Shifting device	S
Inclined lifts	S**	Sugar-beet Cutters	M	Roller adjusting device	M
Blowers, fans, ventilators		Paper machines		Water recycling machine	
Axial blowers	M	Couchers	S**	Thickeners	M
Rotary piston blowers	M	Glazing cylinders	S**	Gyroscopic ventilators	M
Large ventilators (mining)	M	Calenders	M**	Mixers	M
Cooling tower fans	***	Mixers	M	Water screws	M
Radial blowers	M	Presses		Vacuum filter presses	M
Induced draft fans	M	---	S**	Rate/Screen drives	G

Prime mover	Hours of operation/day	Prime mover Load parameter			f ₁ Extra Heavy duty
		Uniform load G	Medium load M	Heavy load S	
Electric motor	up to 3 over 3 to 10 over 10 to 24	0.80 1.00 1.25	1.00 1.25 1.50	1.50 1.75 2.00	2.0 2.25 2.5
Piston engines	up to 3 over 3 to 10 over 10 to 24	1.00 1.25 1.50	1.25 1.50 1.75	1.75 2.00 2.25	2.25 2.5 2.75
Piston engines	up to 3 over 3 to 10 over 10 to 24	1.25 1.50 1.75	1.50 1.75 2.00	2.00 2.25 2.50	2.5 2.75 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.

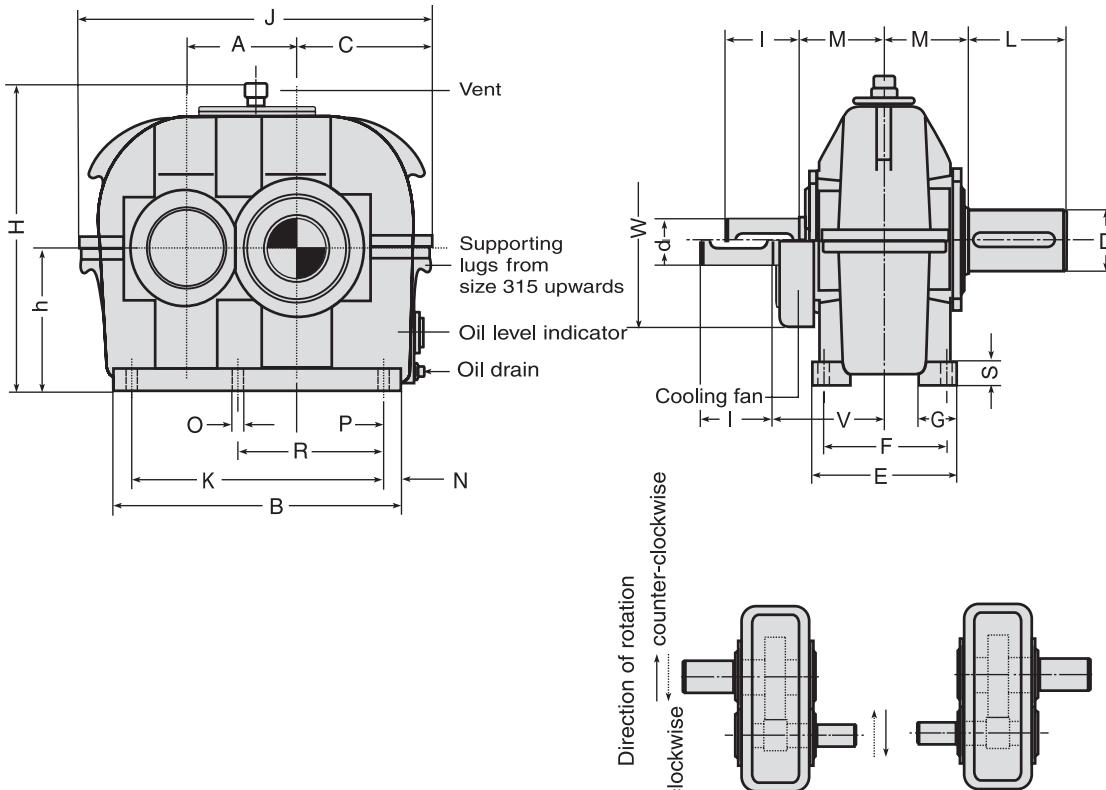
Type of cooling	Ambient temperature	Duration of operation per hour					f _w
		100%	80%	60%	40%	20%	
For gear boxes without additional cooling	10°C	1.12	1.34	1.57	1.79	2.05	
	20°C	1.0	1.2	1.4	1.6	1.8	
	30°C	0.88	1.06	1.23	1.41	1.58	
	40°C	0.75	0.9	1.05	1.2	1.35	
	50°C	0.63	0.76	0.88	1.01	1.13	
For gear 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 cooling 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

Starts per hour	Driven machines factor						f ₂
	‡	‡	‡	‡	‡	‡	
1.2	1.2	1.4	1.6	1.8	2.0		
1	1	1	1	1	1		
2 to 20	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	

OMEX-D/R SERIES modular gear units
Helical gear, single reduction

DAN



"Left-hand" design "Right-hand" design

Example of a gear unit designation :

Gear unit DAN 200 R

$P_N = 330 \text{ [kW]}$; $n_1 = 1500 \text{ [rpm]}$;

$n_2 = 475 \text{ [rpm]}$; $i_N = 3.15:1$

Normal design, size 200

R: 'right - hand' design for transmission of 330 [kW] at an input speed of $n_1 = 1500 \text{ [rpm]}$ and a transmission ratio of $i_N = 3.15:1$

Size of gear unit	Input Shaft												Output shaft	Dimensions [mm]												Fan cooling	Average weight [kg]	Oil quantity [litres]	
	$i_N \leq 3.15$		$i_N > 3.15$ up to 5		$i_N > 5$																								
	d	I	d	I	d	I	D	L	A	B	C	E	F	G	h	H	J	K	M	N	O	P	R	S	V	W			
80	25	60	20	50			32	80	80	205	115	140	110	45	100	240	280	175	90	15	14	60		20	185	180	18	0.7	
90	30	80	25	60			38	80	90	230	125	150	120	50	110	260	310	200	95	15	14	70		20	195	180	25	0.9	
100	35	80	30	80	20	50	45	110	100	260	135	155	125	50	125	290	340	220	100	20	14	75		25	200	180	35	1.2	
110	45	110	35	80	25	60	48	110	110	290	145	170	140	50	140	320	370	250	105	20	14	85		25	205	230	50	1.7	
125	50	110	40	110	30	80	55	110	125	330	165	185	155	55	160	355	420	290	115	20	14	100		25	215	230	65	2.2	
140	55	110	45	110	35	80	60	140	140	365	180	200	160	60	180	410	460	315	125	25	14	110		35	220	300	95	3	
160	60	140	50	110	40	110	70	140	160	410	205	230	190	65	200	450	520	350	135	30	18	120		35	230	300	120	4	
180	70	140	55	110	45	110	80	170	180	470	220	250	210	70	225	505	560	410	150	30	18	145		35	240	300	170	6.5	
200	75	140	60	140	50	110	90	170	200	520	250	270	220	75	250	550	640	450	160	35	23	155		40	260	380	225	8.5	
225	85	170	70	140	55	110	100	210	225	590	275	290	240	80	280	605	710	520	175	35	23	180		45	270	380	320	12	
250	95	170	80	170	60	140	110	210	250	650	305	325	265	90	315	665	790	570	185	40	27	195		50	295	530	415	16	
280	105	210	90	170	70	140	120	210	280	720	340	350	290	100	355	735	880	630	200	45	27	215	370	55	310	530	570	21	
315	115	210	95	170	80	170	140	250	315	805	375	390	315	110	400	815	975	705	215	50	33	240	420	60	335	650	760	30	
355	130	250	110	210	90	170	160	300	355	910	425	400	325	120	450	905	1100	810	235	50	33	280	480	65	350	650	1025	42	
400	145	250	120	210	100	210	170	300	400	1020	475	430	350	130	500	1000	1230	910	250	55	33	315	540	70	365	650	1400	58	
450	160	300	130	250	110	210	190	350	450	1145	535	475	390	140	560	1120	1385	1025	280	60	39	355	615	80	405	650	1900	80	
500	180	300	140	250	120	210	210	350	500	1275	590	510	425	150	630	1275	1535	1155	295	60	39	400	680	90	420	650	2800	105	
560	190	350	160	300	130	250	240	410	560	1425	650	550	465	160	710	1410	1700	1305	310	60	39	450	760	100	435	650	3810	140	
630	210	350	180	300	140	250	260	410	630	1600	730	570	485	170	800	1580	1910	1480	330	60	39	510	840	110	455	650	5100	190	

Larger gear box sizes of this design on enquiry.

Dimensions not binding. Get certified drawings for installation purpose.

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 50 mm $\pm k 6$; over 50 mm $\pm m 6$.

Power ratings
DAN

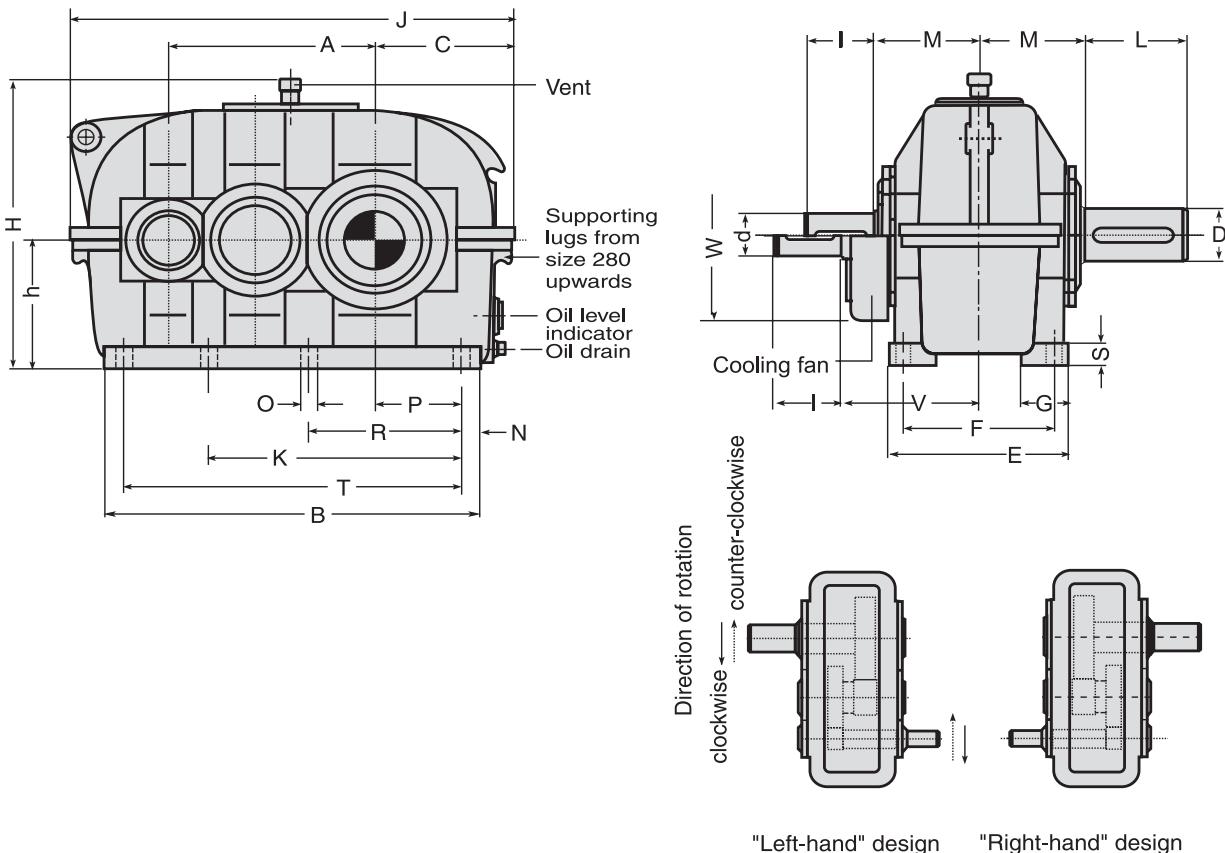
Nominal transmission ratio i_N	Nominal speeds [rpm]; n_1, n_2	Size of gear unit																				
		80	90	100	110	125	140	160	180	200	225	250	280	315	355	400	450	500	560	630		
Nominal gear box rating P_N [kW]																						
1.6	1500 1000 750	940 625 470	50 36 28	74 53 41	97 71 56	120 90 70	170 130 105	230 175 140	305 230 190	390 290 240	550 400 310	740 550 455	1100* 800 660	1500* 1100 900	2050* 1450 1180	2700* 2100 1560	2790* 2280 3450	3450 4340				
1.8	1500 1000 750	835 555 415	45 32 25	67 48 37	91 66 52	110 85 66	160 120 98	210 180 130	290 220 180	355 265 220	500 370 280	690 520 425	1000 750 610	1400* 1020 830	2000* 1400 1120	2600* 1800 1450	2620 2140 3150	3860* 4030				
2	1500 1000 750	750 500 375	38 27 21	58 43 34	79 57 44	105 77 60	150 110 89	200 150 120	270 200 165	340 250 210	480 350 265	630 475 390	950 700 580	1300 940 770	1800* 1300 1020	2400* 1680 1370	2500 1990 2970	3630 3790	4630*	4810		
2.24	1500 1000 750	670 445 335	37 26 20	51 36 28	68 48 37	95 68 52	135 100 82	180 135 110	250 190 155	310 235 190	450 300 240	600 450 370	890 650 530	1200 900 740	1650* 1200 970	2200* 1600 1260	2300 1820 2750	3360 3480	4250*	4420	4510*	
2.5	1500 1000 750	600 400 300	30 21 17	47 33 25	57 41 32	78 55 43	125 95 77	170 125 105	230 170 140	290 220 180	400 280 230	550 410 335	820 620 500	1100 820 670	1500 1120 900	2050* 1450 1180	2100 1720 2520	3080 3310	4050*	4120	4200	
2.8	1500 1000 750	535 360 270	27 19 15	42 30 23	48 34 27	66 46 36	115 80 62	160 120 93	210 160 130	265 200 165	370 260 210	495 375 305	750 560 460	1000 750 610	1350 1000 820	1850 1310 1070	1910 1560 2360	2890 3030	3700	3830	3930	
3.15	1500 1000 750	475 315 235	23 16 13	34 24 18	47 33 26	63 44 35	91 62 47	140 105 82	190 140 110	240 180 150	330 235 190	460 350 285	680 510 410	920 690 570	1250 920 750	1650 1200 1430	2320 2150 2730	3500* 3450	4430*	4220	3570	
3.55	1500 1000 750	425 280 210	20 14 11	28 20 16	43 31 24	59 41 31	92 63 47	125 88 70	185 130 100	240 180 150	330 225 180	460 350 275	680 510 410	920 690 550	1240 900 710	1510 1140 930	2200 1990 2530	3230* 3300	4120*	4250	3470	
4	1500 1000 750	375 250 187	16 11 8.5	23 16 13	35 25 19	51 53 27	75 75 40	105 56 56	160 140 110	205 175 170	310 215 265	460 350 355	640 500 490	850 600 670	1230 880 830	1350 1020 1220	1990 1500 1800	2930 2200 2230	3620*	4240	3280	
4.5	1500 1000 750	335 220 166	14 10 7.5	18 13 10	31 22 17	37 26 20	54 39 40	73 52 40	140 97 75	195 140 105	265 180 145	375 255 195	540 380 295	780 560 430	1110 820 620	1240 940 770	1770 1230 950	2560 1790 1400	3280 2470 1970	5170*	3230	
5	1500 1000 750	300 200 150		17 12 9.5	27 19 15	33 23 18	50 36 28	73 51 40	125 86 65	140 98 77	220 145 110	375 265 200	475 340 200	670 475 360	1020 710 540	1110 840 690	1660 1250 1020	2470 1750 1350	3080 2320	4670	3200	
5.6	1500 1000 750	270 180 134			22 15 12	30 21 16	41 29 22	68 48 37	100 72 54	130 90 70	200 140 105	310 210 155	415 285 215	560 405 305	870 590 440	1010 760 610	1520 1050 790	2020 1350 1040	2730 1840	3940	3000	
6.3	1500 1000 750	240 160 120				23 16 13	41 29 22	57 41 32	83 59 45	120 84 63	155 110 87	240 230 170	345 350 240	495 480 285	720 700 360	940 700 530	1210 830 640	1840 1450 950	2160 1450 1100	3160	2500	
Nominal transmission ratio i_N	input speeds [rpm]; n_1	Size of gear unit																				
Nominal transmission ratio i_N	input speeds [rpm]; n_1	80	90	100	110	125	140	160	180	200	225	250	280	315	355	400	450	500	560	630		
		Thermal capacity, P_{G1} [kW], for gear boxes without cooling																				
1.6 to 2.8	1500 to 750	23 21 20	29 27 26	37 34 32	50 42 40	59 54 51	75 70 64	92 87 81	115 103 103	145 130 130	175 160 160	225 218 211	280 275 270	355 350 345	450 440 430	540 530 520	660 650 640	820 800 790	1050 1000 1200			
3.15 to 6.3	1500 to 750	18 16 14	24 20 18	31 29 22	38 33 29	51 45 40	66 62 60	82 79 78	102 94 86	125 120 115	160 151 140	220 210 200	270 260 240	345 335 320	440 425 415	560 535 525	690 650 640	810 790 980	1020 1000 1180			
		Thermal capacity, P_{G2} [kW], for gear boxes with fan cooling																				
1.6 to 2.8	1500 to 750	42 35 30	48 44 40	65 55 50	85 70 62	102 85 75	130 110 98	158 132 120	200 180 165	262 225 205	310 280 260	400 325 310	500 422 390	640 560 525	790 690 630	860 780 720	1160 1065 1310	1400 1310 1700	1800 2000			
3.15 to 6.3	1500 to 750	38 28 24	42 34 30	60 43 37	75 56 50	92 75 65	120 102 80	152 122 135	190 150 182	235 202 240	300 320 285	378 320 360	475 415 475	615 525 475	785 685 605	980 835 765	1245 1050 1000	1560 1360 1260	1750 1650 1900			
		Thermal capacity, P_{G3} [kW], for gear boxes with cooling coil																				
1.6 to 6.3	1500 to 750	101 96 95	121 113 111	144 141 140	175 175 168	212 204 196	245 240 231	289 285 271	335 332 328	393 381 375	470 457 450	555 543 536	650 643 640	765 750 750	920 910 890	1070 1060 1060	1260 1245 1245	1530 1510 1510	1850 1780 1780	2000		
		Thermal capacity, P_{G4} [kW], for gear boxes with fan and cooling coil																				
1.6 to 6.3	1500 to 750	120 110 105	140 130 125	172 162 158	210 200 190	255 235 220	300 280 265	355 330 310	420 400 390	510 470 450	605 570 550	730 650 635	870 790 760	1050 970 930	1260 1160 1090	1390 1340 1340	1760 1660 1660	2110 2020 2020	2600 2480 2480	2800		

For power ratings indicated in **heavy type** a check of the thermal capacity is always necessary (see the example of a calculation). At normal type print this is necessary only at an ambient temperature deviating from 20°C. The nominal gear ratings P_N [kW] marked with * require forced feed lubrication by a pump. The nominal transmission ratio is maintained with a tolerance of about –3%. Intermediate transmission ratios are possible.

FOR MILL DUTY APPLICATIONS IT IS RECOMMENDED TO GO WITH FLS

OMEX-D/R SERIES modular gear units
Helical gear, double reduction

DBN



"Left-hand" design "Right-hand" design

Example of a gear unit designation :

Gear unit DBN 200 R

$P_N = 195 \text{ [kW]}$; $n_1 = 1500 \text{ rpm}$;
 $n_2 = 210 \text{ [rpm]}$; $i_N = 7.1 : 1$

Normal design, size 200

R: 'right - hand' design for transmission of 195 [kW] at an input speed of $n_1 = 1500 \text{ [rpm]}$ and a transmission ratio of $i_N = 7.1 : 1$

Size of gear unit	Input Shaft						Output shaft	Dimensions [mm]																Fan cooling	Average weight [kg]	Oil quantity [litres]				
	$i_N \leq 12.5$ up to 20	$i_N > 12.5$	$i_N > 20$	d	I	d	I	D	L	A	B	C	E	F	G	h	H	J	K	M	N	O	P	R	S	T	V	W		
110	25	60	20	50				48	110	190	350	140	180	150	50	125	310	420	110	20	14	80	140	25	310	210	180	58	2	
125	30	80	25	60				55	110	215	395	155	200	170	55	140	340	475	120	20	14	95	170	25	355	220	230	78	3	
140	35	80	30	80	20	50	60	140	240	440	175	220	190	60	160	380	530		135	20	14	110	195	30	400	230	230	110	4	
160	45	110	35	80	25	60	70	140	270	500	190	250	210	65	180	430	590	145	30	18	115	210	35	440	240	300	145	5		
180	50	110	40	110	30	80	80	170	305	565	215	270	230	70	200	475	665	160	30	18	135	240	35	505	250	300	200	8		
200	55	110	45	110	35	80	90	170	340	625	240	300	250	75	225	520	745	175	35	23	145	255	40	555	275	380	270	11		
225	60	140	50	110	40	110	100	210	385	705	260	320	270	80	280	570	825		190	35	23	165	290	45	635	285	380	360	14	
250	70	140	55	110	45	110	110	210	430	785	290	370	310	90	280	625	925		210	40	27	180	315	50	705	310	380	490	21	
280	75	140	60	140	50	110	120	210	480	875	325	400	340	100	315	690	1035		230	45	27	200	355	55	785	340	530	675	29	
315	85	170	70	140	55	110	140	250	540	975	355	450	380	110	355	785	1145		260	50	33	220	405	60	875	365	530	910	42	
355	95	170	80	170	60	140	160	300	605	1085	390	480	410	120	400	865	1265		285	55	33	245	450	65	975	400	650	1230	60	
400	105	210	90	170	70	140	170	300	680	1215	440	530	460	130	450	960	1425		305	55	33	280	510	70	1105	425	650	1675	85	
450	115	210	95	170	80	170	190	350	765	1365	490	600	510	140	500	1065	1595		940	345	60	39	315	575	80	1245	455	650	2260	115
500	125	250	110	210	90	170	220	350	855	1525	550	650	560	150	560	1185	1785		1050	475	70	39	350	645	90	1385	555	650	3500	165
560	145	250	120	210	100	210	250	410	960	1705	610	750	640	160	630	1325	1985		1165	510	80	45	390	715	100	1545	595	650	4800	235
630	160	300	130	250	110	210	300	470	1080	1915	675	800	690	170	710	1460	2215		1305	560	80	45	445	800	110	1755	635	650	6500	330
710	180	300	140	250	120	210	340	550	1210	2150	760	900	770	190	800	1665	2480		1490	600	90	45	500	900	125	1970	670	650	9100	440
800	190	350	160	300	130	250	400	650	1360	2420	840	1000	870	200	900	1870	2770		1680	645	90	45	560	1100	140	2240	710	650	12500	600

Larger gear box sizes of this design on enquiry.

Modification of dimensions reserved.

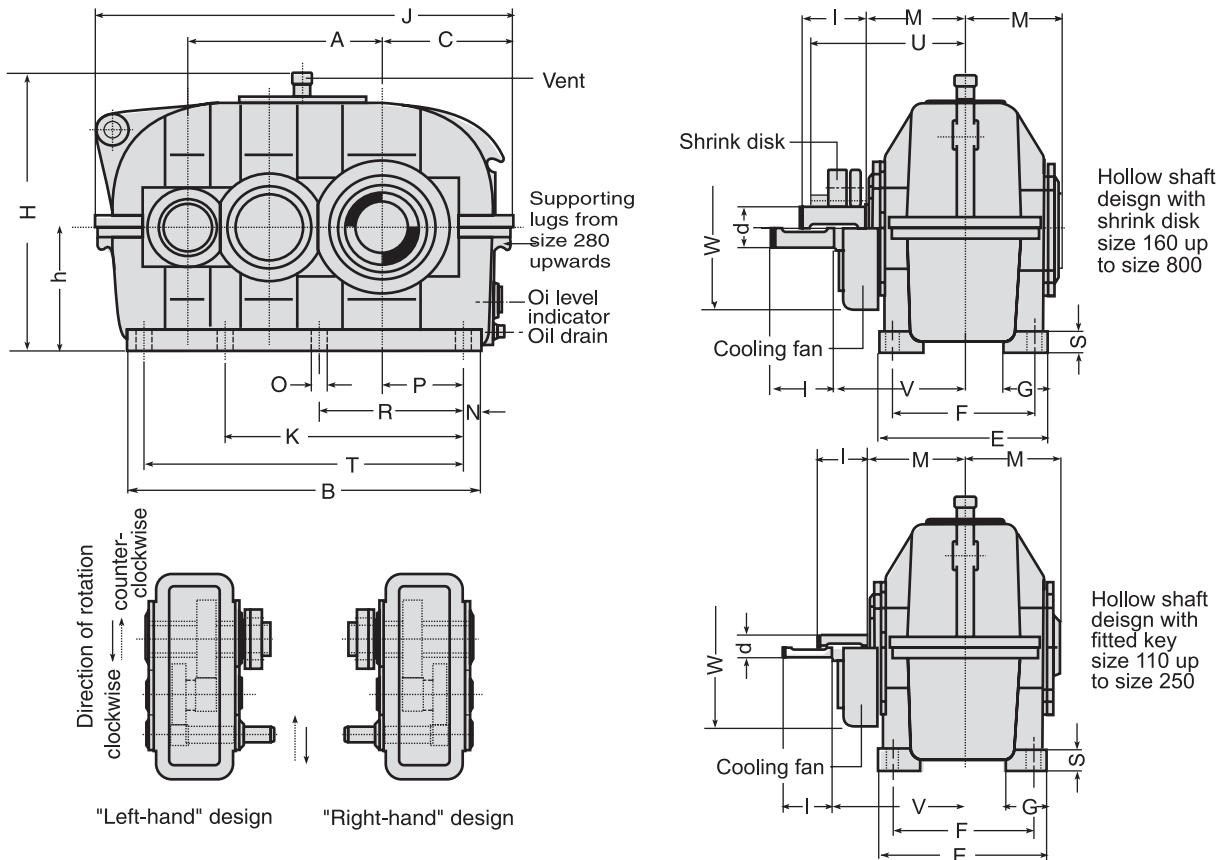
Shaft ends with keys according to DIN 6885, part 1, Shape A.

Shaft centering according to DIN 332, shape DS (with thread)

Tolerance field for shaft ends ISO fit, up to 50 mm f k 6 ; over 50 mm f m 6 .

OMEX-D/R SERIES modular gear units, hollow shaft, footmounted - Helical gear, double reduction

DBH*



Example of a gear unit designation :

Gear unit DBH 200 R

$P_N = 195 \text{ [kW]}$; $n_1 = 1500 \text{ [rpm]}$;

$n_2 = 210 \text{ [rpm]}$; $i_N = 7.1 : 1$

Normal design, size 200

R: 'right - hand' design for transmission of 195 [kW] at an input speed of $n_1 = 1500 \text{ [rpm]}$ and a transmission ratio of $i_N = 7.1 : 1$

Size of gear unit	Input Shaft						Dimensions [mm]																		Fitting code	Average weight [kg]	Oil quantity [litres]		
	$i_N \leq 12.5$ up to 20	$i_N > 12.5$	$i_N > 20$	d	I	d	I	d	I	A	B	C	E	F	G	h	H	J	K	M	N	O	P	R	S	T	U	V	W
110	25	60	20	50				190	350	140	180	150	50	125	310	430		110	20	14	80	140	25	310		210	180	58	2
125	30	80	25	60				215	395	155	200	170	55	140	340	475		120	20	14	95	170	25	355		220	230	78	3
140	35	80	30	80	20	50		240	440	175	220	190	60	160	380	530		135	20	14	110	195	30	400		230	230	110	4
160	45	110	35	80	25	60		270	500	190	250	210	65	180	430	590		145	30	18	115	210	35	440	225	240	300	145	5
180	50	110	40	110	30	80		305	565	215	270	230	70	200	475	665		160	30	18	135	240	35	505	250	250	300	200	8
200	55	110	45	110	35	80		340	625	240	300	250	75	225	520	745		175	35	23	145	255	40	555	275	275	380	270	11
225	60	140	50	110	40	110		385	705	260	320	270	80	250	570	825		190	35	23	165	290	45	635	295	285	380	360	14
250	70	140	55	110	45	110		430	785	290	370	310	90	280	625	925		210	40	27	180	315	50	705	325	310	380	490	21
280	75	140	60	140	50	110		480	875	325	400	340	100	315	690	1035		230	45	27	200	355	55	785	360	340	530	675	29
315	85	170	70	140	55	110		540	975	355	450	380	110	355	785	1145		260	50	33	220	405	60	875	420	365	530	910	42
355	95	170	80	170	60	140		605	1085	390	480	410	120	400	865	1265		285	55	33	245	450	65	975	450	400	650	1230	60
400	105	210	90	170	70	140		680	1215	440	530	460	130	450	960	1425		305	55	33	280	510	70	1105	490	425	650	1675	85
450	115	210	95	170	80	170		765	1365	490	600	510	140	500	1065	1595	940	345	60	39	315	575	80	1245	550	455	650	2260	115
500	125	250	110	210	90	170		855	1525	550	650	560	150	560	1185	1785	1050	475	70	39	350	645	90	1385	715	555	650	3500	165
560	145	250	120	210	100	210		960	1705	610	750	640	160	630	1325	1985	1165	510	80	45	390	715	100	1545	760	595	650	4800	235
630	160	300	130	250	110	210	1080	1915	675	800	690	170	710	1460	2215	1305	560	80	45	445	800	110	1755	840	635	650	6500	330	
710	180	300	140	250	120	210	1210	2150	760	900	770	190	800	1665	2480	1490	600	90	45	500	900	125	1970	890	670	650	9100	440	
800	190	350	160	300	130	250	1360	2420	840	1000	870	200	900	1870	2770	1690	645	90	45	560	1100	140	2240	955	710	650	12500	600	

Larger gear box sizes of this design on enquiry.

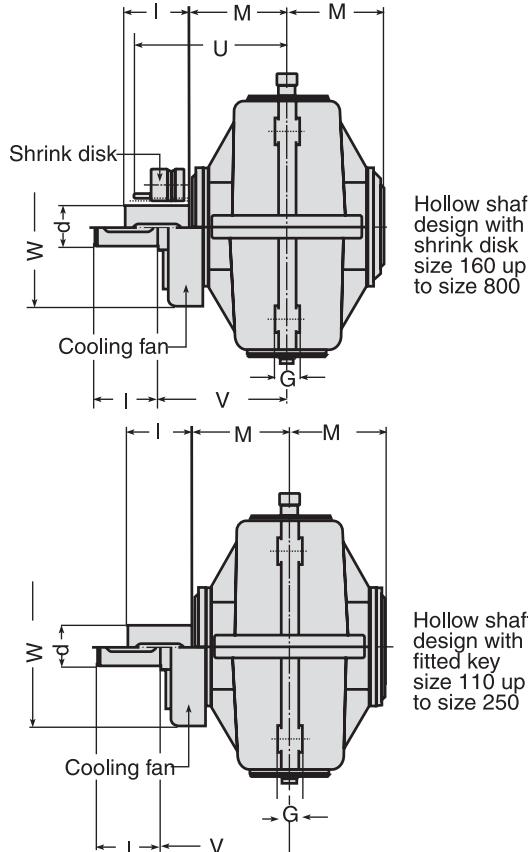
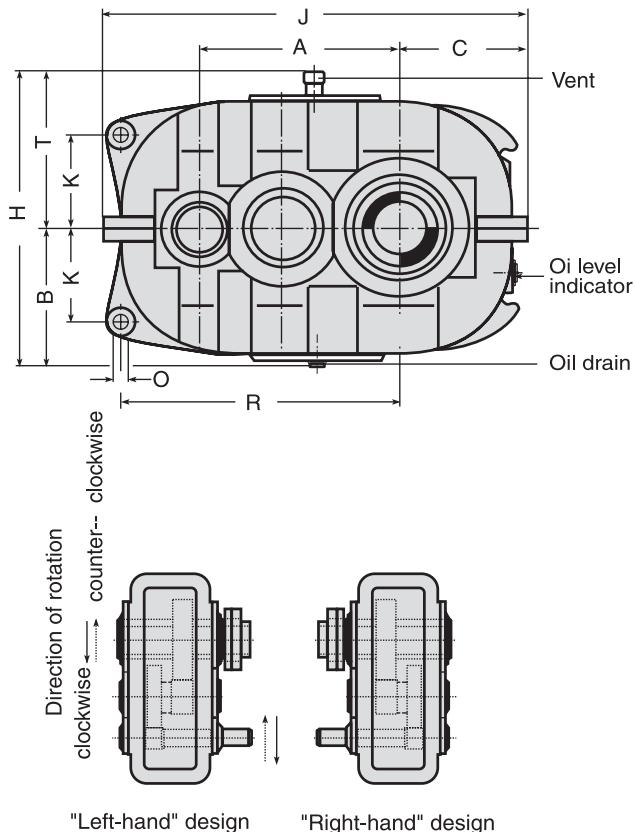
Modification of dimensions reserved.

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 50 mm $\pm k 6$; over 50 mm $\pm m 6$.

OMEX-D/R SERIES modular gear units,
shaftmounted Helical gear, double reduction

DBA*



Example of a gear unit designation :

Gear unit DBA 200 R

$$P_N = 195 \text{ [kW]}; n_1 = 1500 \text{ [rpm]};$$

$$n_2 = 210 \text{ [rpm]}; i_N = 7.1 : 1$$

Normal design, size 200

R: 'right - hand' design for transmission of 195 [kW] at an input speed of $n_i = 1500$ [rpm] and a transmission ratio of $i_N = 7.1 : 1$

Size of gear unit	Input Shaft		Dimensions [mm]																Fan cooling		Average weight [kg]	Oil quantity [litres]	
	i _N ≤ 12.5	i _N > 12.5 up to 20	i _N > 20	d	I	d	I	A	B	C	G	H	J	K	M	O ^{H11}	R	T	U	V	W		
110	25	60	20	50				190	160	140	25	345	430	95	110	18	270	185		210	180	51	1
125	30	80	25	60				215	175	155	28	375	475	110	120	18	300	200		220	230	68	2
140	35	80	30	80	20	50	240	195	175	30	415	530	120	135	20	330	220		230	230	96	3	
160	45	110	35	80	25	60	270	215	190	32	465	590	135	145	20	375	250	225	240	300	127	4	
180	50	110	40	110	30	80	305	240	215	35	515	665	160	160	25	420	275	250	250	300	174	5	
200	55	110	45	110	35	80	340	260	240	45	555	745	165	175	30	475	295	275	275	380	235	6	
225	60	140	50	110	40	110	385	290	260	50	610	825	185	190	35	535	320	295	285	380	314	8	
250	70	140	55	110	45	110	430	315	290	55	660	925	210	210	40	605	345	325	310	380	428	12	
280	75	140	60	140	50	110	480	345	325	60	720	1035	235	230	45	670	375	360	340	530	595	17	
315	85	170	70	140	55	110	540	380	355	70	810	1145	265	260	50	745	430	420	365	530	800	24	
355	95	170	80	170	60	140	605	415	390	80	880	1265	295	285	55	815	465	450	400	650	1080	35	
400	105	210	90	170	70	140	680	460	440	90	970	1425	320	305	60	925	510	490	425	650	1475	50	
450	115	210	95	170	80	170	765	515	490	105	1080	1595	370	345	65	1030	565	550	455	650	1990	65	
500	125	250	110	210	90	170	855	575	550	105	1200	1785	415	475	70	1145	625	715	555	650	3120	95	
560	145	250	120	210	100	210	960	645	610	110	1340	1985	470	510	75	1275	695	760	595	650	4190	135	
630	160	300	130	250	110	210	1080	725	675	115	1500	2215	540	560	80	1425	775	840	635	650	5660	190	
710	180	300	140	250	120	210	1210	830	760	120	1695	2480	610	600	85	1590	865	890	670	650	7650	270	
800	190	350	160	300	130	250	1360	940	840	125	1910	2770	690	645	90	1780	970	955	710	650	10140	380	

Larger gear box sizes of this design on enquiry.

Modification of dimensions required

Shaft ends with keys according to DIN 6885, part 1, Shape A.
Shaft centering according to DIN 332 shape DS (with thread)

Shaft centering according to DIN 332; shape DS (with thread)
Tolerance field for shaft ends ISO fit, up to 50 mm f k 6 ; over 50 mm f m 6 .

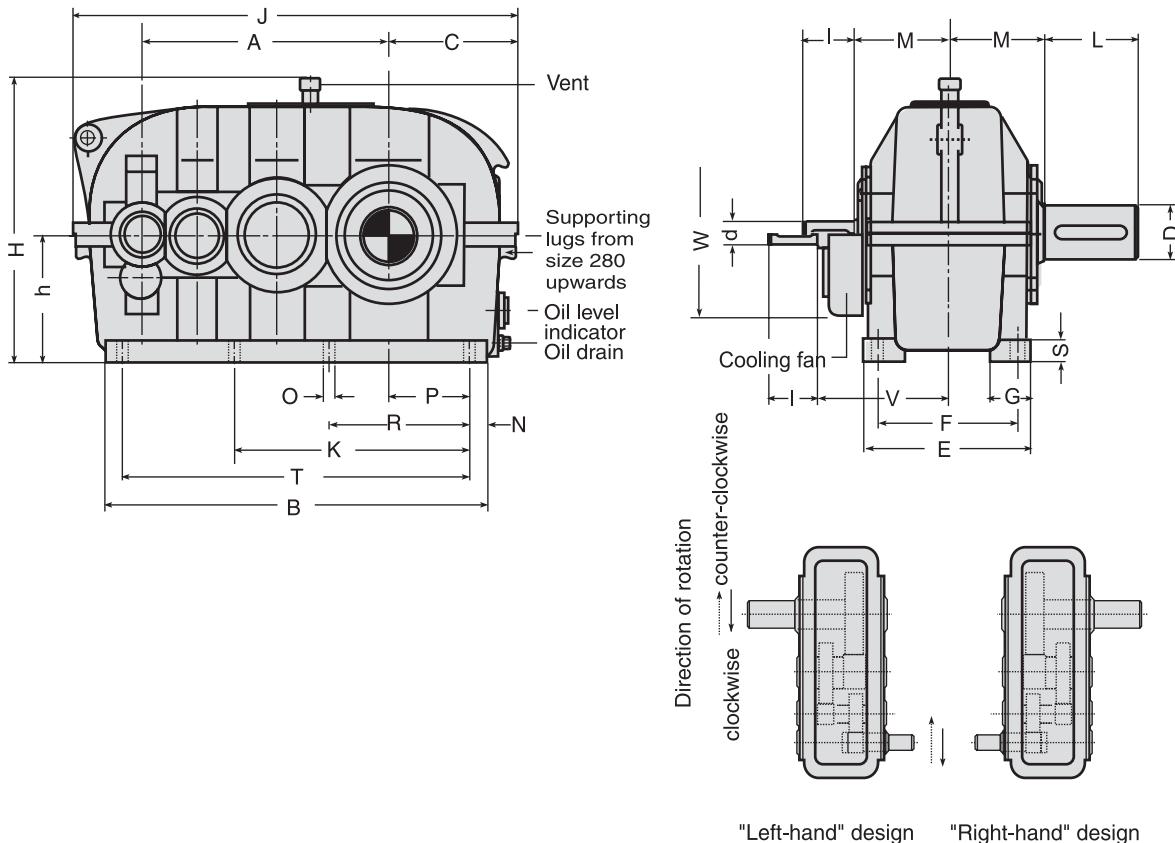
Power ratings
DBN/DBH/DBA

Nominal transmission ratio i_N	Nominal speeds [rpm]; n_1 , n_2		Size of gear unit																	
			110	125	140	160	180	200	225	250	280	315	355	400	450	500	560	630	710	800
6.3	1500	240	36	50	70	105	145	205	285	370	530	790	1060*	1450*	2020*	3740*	5060*	7020*		
	1000	160	24	34	47	71	100	145	215	280	400	560	800	1100	1520	2650	3650*	4780*	7120*	
	750	120	18	25	36	54	74	110	170	230	310	425	600	900	1200	1990	2790	3600	5420*	7700*
7.1	1500	210	36	48	66	100	140	195	280	380	490	730	990	1350*	1900*	3400*	4760*	6200*		
	1000	140	24	32	44	66	93	135	200	255	365	490	720	1000	1400	2330	3270*	4210*	6270*	
	750	105	18	24	33	50	71	100	150	210	275	370	550	790	1050	1760	2470	3170	4730	6700*
8	1500	188	32	44	62	91	125	180	255	350	450	660	920	1300	1750*	3070*	4300*	5600*		
	1000	125	22	30	41	60	85	125	180	245	335	450	680	950	1270	2120	2970	3820	5700*	
	750	94	16	22	31	46	65	92	135	190	250	340	520	710	950	1590	2230	2870	4270	6070
9	1500	167	29	40	56	83	130	185	225	320	450	580	820	1100	1500	2740*	3840*	5000*		
	1000	111	19	27	38	56	86	125	160	215	300	430	620	800	1120	1890	2640	3400	5070*	
	750	83	15	20	28	43	67	95	125	170	235	340	500	650	900	1470	2080	2750	4020	5760
10	1500	150	25	35	50	74	100	150	210	280	390	540	760	1050	1420	2540*	3560*	4590*		
	1000	100	17	24	33	49	68	95	145	195	265	360	540	750	1000	1700	2380	3060	4560*	
	750	75	13	18	25	37	50	80	110	155	210	280	420	600	800	1320	1860	2460	3600	5160
11.2	1500	134	22	32	45	66	95	140	180	250	330	480	680	900	1250	2270	3180*	4090*		
	1000	89	15	21	30	45	65	95	130	175	245	360	500	680	940	1530	2140	2750	4320	
	750	67	11	16	22	35	49	72	95	130	185	270	400	500	720	1180	1660	2200	3220	4610
12.5	1500	120	21	29	40	55	80	110	170	225	320	430	640	850	1200	2020	2830	3630*	5420*	
	1000	80	14	19	27	37	52	77	115	165	220	300	450	600	850	1390	1970	2600	3800	
	750	60	11	15	20	28	42	58	88	125	165	225	330	450	640	1050	1480	1950	2860	4090
14	1500	107	18	26	35	48	68	100	150	205	280	380	550	710	950	1790	2510	3230*	4820*	
	1000	71	12	17	24	32	46	70	105	145	195	265	400	520	710	1240	1750	2310	3380	
	750	53	9	13	18	24	35	52	78	110	145	200	290	420	560	930	1310	1730	2530	3630
16	1500	94	15	22	30	43	60	90	135	185	250	340	490	650	860	1590	2230	2870	4270*	
	1000	62	10	15	20	29	40	62	92	130	175	235	350	490	650	1100	1550	2050	3000	
	750	47	8	11	15	22	32	47	69	97	130	175	270	370	500	820	1170	1540	2250	3220
18	1500	83	13	19	27	37	55	73	120	140	220	310	430	550	740	1470	1760	2570	4020	
	1000	56	8.5	14	19	25	39	51	80	98	145	230	320	410	540	970	1230	1820	2730	
	750	41	6.5	10	15	19	30	40	62	77	110	180	250	340	440	770	950	1440	2140	3110
20	1500	75		17	24	35	49	73	110	140	210	280	410	520	700	1320	1860	2460	3600	
	1000	50		12	17	23	33	49	74	98	140	190	280	380	500	880	1240	1640	2400	
	750	38		9	12	18	25	38	58	77	110	145	230	310	400	700	990	1290	1920	2780
22.4	1500	67			21	30	41	65	99	135	185	250	390	490	660	1180	1550	2020	3110	
	1000	45			14	20	27	44	66	92	125	170	260	350	460	790	1050	1360	2100	
	750	33			11	16	21	34	52	70	98	130	200	280	370	620	790	1040	1600	2370
Nominal transmission ratio i_N	input speeds [rpm]; n_1		Size of gear unit																	
			110	125	140	160	180	200	225	250	280	315	355	400	450	500	560	630	710	800

Thermal capacity, P_{G1} (kW), for gear boxes without cooling																				
6.3	1500	30	40	48	62	80	100	122	155	205	245	300	390	480	630	780	1000	1200	1500	
to	14	1000	26	35	46	55	72	92	120	150	190	240	290	380	470	620	770	980	1180	1470
	750	23	32	40	53	67	90	110	142	180	230	285	370	465	610	760	950	1160	1450	
16	1500	25	34	42	56	73	94	120	147	185	240	290	380	465	610	760	970	1170	1470	
to	22.4	1000	22	29	36	48	61	84	108	132	175	230	280	360	460	560	740	955	1150	1450
	750	20	25	33	42	56	75	100	122	162	212	275	345	440	550	730	940	1130	1420	
Thermal capacity, P_{G2} (kW), for gear boxes with fan cooling																				
6.3	1500	52	65	82	110	135	162	205	260	320	405	500	650	800	1000	1300	1600	1) 1)		
to	14	1000	40	50	65	85	105	145	180	220	280	370	450	580	730	880	1150	1400	1) 1)	
	750	32	42	58	75	100	130	170	210	260	340	420	530	680	880	1150	1400	1) 1)		
16	1500	45	58	75	95	120	155	200	250	290	390	490	630	780	950	1200	1500	1) 1)		
to	22.4	1000	34	44	55	70	95	120	160	210	270	350	440	570	700	900	1100	1400	1) 1)	
	750	30	38	50	62	85	105	140	180	240	300	400	520	650	850	1000	1300	1) 1)		
Thermal capacity, P_{G3} (kW), for gear boxes with cooling coil																				
6.3	1500	148	165	186	202	225	248	267	295	345	390	450	540	680	830	880	1100	1) 1)		
to	22.4	1000	136	156	181	195	217	237	260	290	340	380	440	520	660	800	870	1080	1) 1)	
	750	121	140	162	188	207	230	250	282	330	370	425	510	645	780	860	1050	1300	1) 1)	
Thermal capacity, P_{G4} (kW), for gear boxes with fan and cooling coil																				
6.3	1500	170	190	220	250	280	310	350	400	460	550									

OMEX-D/R SERIES modular gear units
Helical gear, triple reduction

DCN



"Left-hand" design "Right-hand" design

Example of a gear unit designation :

Gear unit DCN 200 R
 $P_N = 43 \text{ [kW]}$; $n_1 = 1500 \text{ rpm}$;
 $n_2 = 38 \text{ [rpm]}$; $i_N = 40 : 1$

Normal design, size 200

R: 'right - hand' design for transmission of 43 [kW] at an input speed of $n_1 = 1500$ [rpm] and a transmission ratio of $i_N = 40:1$

Size of gear unit	Input Shaft										Output shaft	Dimensions [mm]																		Fan cooling	Average weight [kg]	Oil quantity [litres]
	$i_N \leq 45$	$i_N > 45$ up to 100	$i_N > 100$	d	I	d	I	d	I	D		A	B	C	E	F	G	h	H	J	K	M	N	O	P	R	S	T	V	W		
160	25	60	20	50			70	140	350	555	190	250	210	65	180	430	645		145	30	18	115	210	35	495	240	300	160	8			
180	30	80	25	60			80	170	395	625	215	270	230	70	200	475	725		160	30	18	135	240	35	565	250	300	215	10			
200	35	80	30	80	20	50	90	170	440	685	240	300	250	75	225	520	805		175	35	23	145	255	40	615	275	380	295	14			
225	45	110	35	80	25	60	100	210	495	775	260	320	270	80	250	570	895		190	35	23	165	290	45	705	285	380	405	22			
250	50	110	40	110	30	80	110	210	555	860	290	370	310	90	280	625	1000		210	40	27	180	315	50	780	310	380	540	28			
280	55	110	45	110	35	80	120	210	620	970	325	400	340	100	315	690	1130		230	45	27	200	355	55	880	340	530	720	39			
315	60	140	50	110	40	110	140	250	700	1085	355	450	380	110	355	785	1255		655	260	50	33	220	405	60	985	365	530	970	56		
355	70	140	55	110	45	110	160	300	785	1220	390	480	410	120	400	865	1400		740	285	55	33	245	450	65	1110	400	650	1300	80		
400	75	140	60	140	50	110	170	300	880	1355	440	530	460	130	450	960	1565		840	305	55	33	280	510	70	1245	423	650	1770	115		
450	85	170	70	140	55	110	190	350	990	1520	490	600	510	140	500	1065	1750		940	345	60	39	315	575	80	1400	455	650	2350	165		
500	95	170	80	170	60	140	220	350	1105	1690	550	650	560	150	560	1185	1950		1050	475	70	39	350	645	90	1550	55	650	3850	220		
560	105	210	90	170	70	140	250	410	1240	1895	610	750	640	160	630	1325	2175		1165	510	80	45	390	715	100	1735	595	650	5300	310		
630	115	210	95	170	80	170	300	470	1395	2145	695	800	690	170	710	1485	2485		1320	560	80	45	445	800	110	1985	635	650	7250	450		
710	125	250	110	210	90	170	340	550	1565	2400	760	900	770	190	800	1665	2740		1490	600	90	45	500	900	125	2220	670	650	10100	670		
800	145	250	120	210	100	210	400	650	1760	2700	840	1000	870	200	900	1870	3040		1680	645	90	45	560	1100	140	2520	710	650	14100	900		

Larger gear box sizes of this design on enquiry.

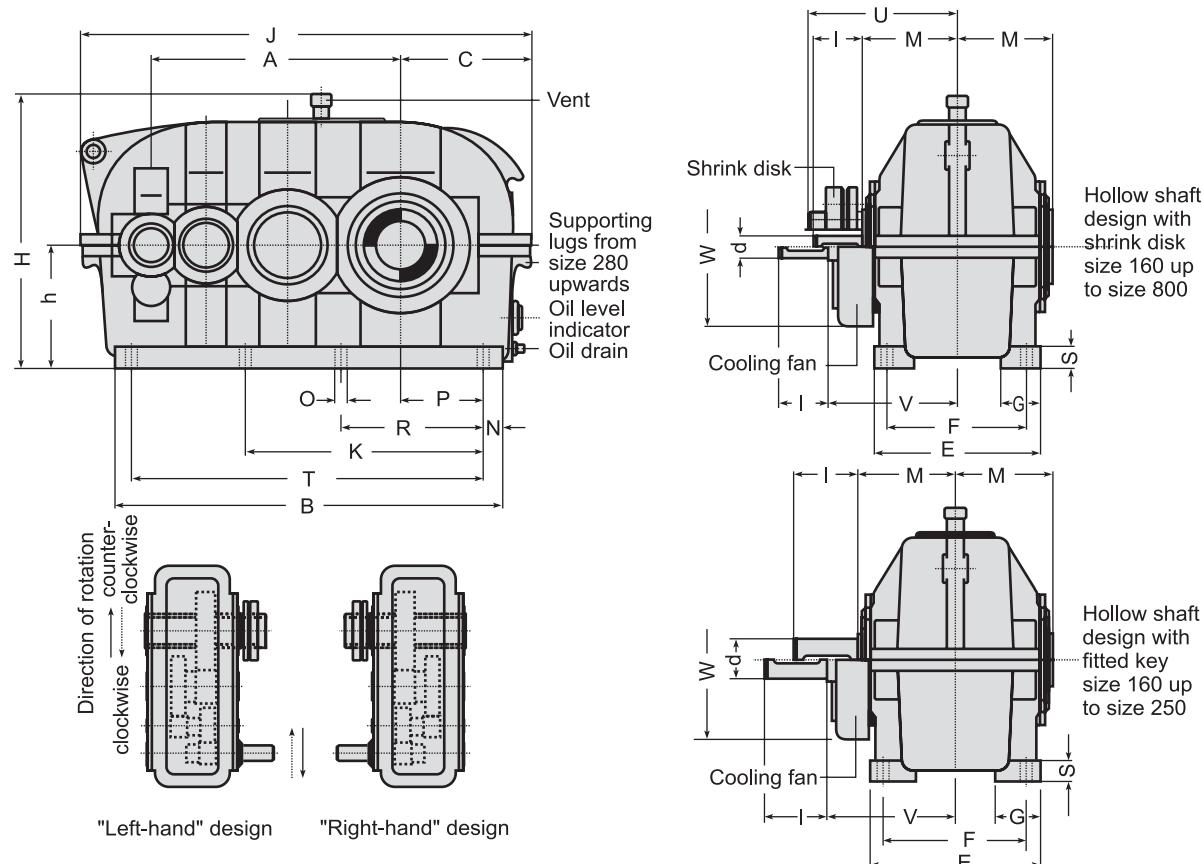
Modification of dimensions reserved.

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 50 mm $\pm k 6$; over 50 mm $\pm m 6$.

OMEX-D/R SERIES modular gear units, hollow shaft,
footmounted - Helical gear, triple reduction

DCH*



Example of a gear unit designation :

Gear unit DCH 200 R

$P_N = 43 \text{ [kW]}$; $n_1 = 1500 \text{ [rpm]}$;

$n_2 = 38 \text{ [rpm]}$; $i_N = 40 : 1$

Normal design, size 200

R: 'right - hand' design for transmission of 43 [kW] at an input speed of $n_1 = 1500 \text{ [rpm]}$ and a transmission ratio of $i_N = 40 : 1$

Size of gear unit	Input Shaft						Dimensions [mm]																		Fan cooling	Average weight [kg]	Oil quantity [litres]		
	$i_N \leq 45$	$i_N > 45$ up to 100	$i_N > 100$	d	I	d	I	A	B	C	E	F	G	h	H	J	K	M	N	O	P	R	S	T	U	V	W		
160	25	60	20	50		350	555	190	250	210	65	180	430	645		145	30	18	115	210	35	495	225	240	300	160	8		
180	30	80	25	60		395	625	215	270	230	70	200	475	725		160	30	18	135	240	35	565	250	250	300	215	10		
200	35	80	30	80	20	50	440	685	240	300	250	75	225	520	805		175	35	23	145	255	40	615	275	275	380	295	14	
225	45	110	35	80	25	60	495	775	260	320	270	80	250	570	895		190	35	23	165	290	45	705	295	285	380	405	22	
250	50	110	40	110	30	80	555	860	290	370	310	90	280	625	1000		210	40	27	180	315	50	780	325	310	380	540	28	
280	55	110	45	110	35	80	620	970	325	400	340	100	315	690	1130		230	45	27	200	355	55	880	360	340	530	720	39	
315	60	140	50	110	40	110	700	1085	355	450	380	110	355	785	1255		655	260	50	33	220	405	60	985	420	365	530	970	56
355	70	140	55	110	45	110	785	1220	390	480	410	120	400	865	1400		740	285	55	33	245	450	65	1110	450	400	650	1300	80
400	75	140	60	140	50	110	880	1355	440	530	460	130	450	960	1565		840	305	55	33	280	510	70	1245	490	425	650	1770	115
450	85	170	70	140	55	110	990	1520	490	600	510	140	500	1065	1750		940	345	60	39	315	575	80	1400	550	455	650	2350	165
500	95	170	80	170	60	140	1105	1690	550	650	560	150	560	1185	1950		1050	475	70	39	350	645	90	1550	715	555	650	3850	220
560	105	210	90	170	70	140	1240	1895	610	750	640	160	630	1325	2175		1165	510	80	45	390	715	100	1735	760	595	650	5300	310
630	115	210	95	170	80	170	1395	2145	695	800	690	170	710	1485	2485		1320	560	80	45	445	800	110	1985	840	635	650	7250	450
710	125	250	110	210	90	170	1565	2400	760	800	770	190	800	1665	2740		1490	600	90	45	500	900	125	2220	890	670	650	10100	670
800	145	250	120	210	100	210	1760	2700	840	1000	870	200	900	1870	3040		1680	645	90	45	560	1100	140	2520	955	710	650	14100	900

Larger gear box sizes of this design on enquiry.

Modification of dimensions reserved.

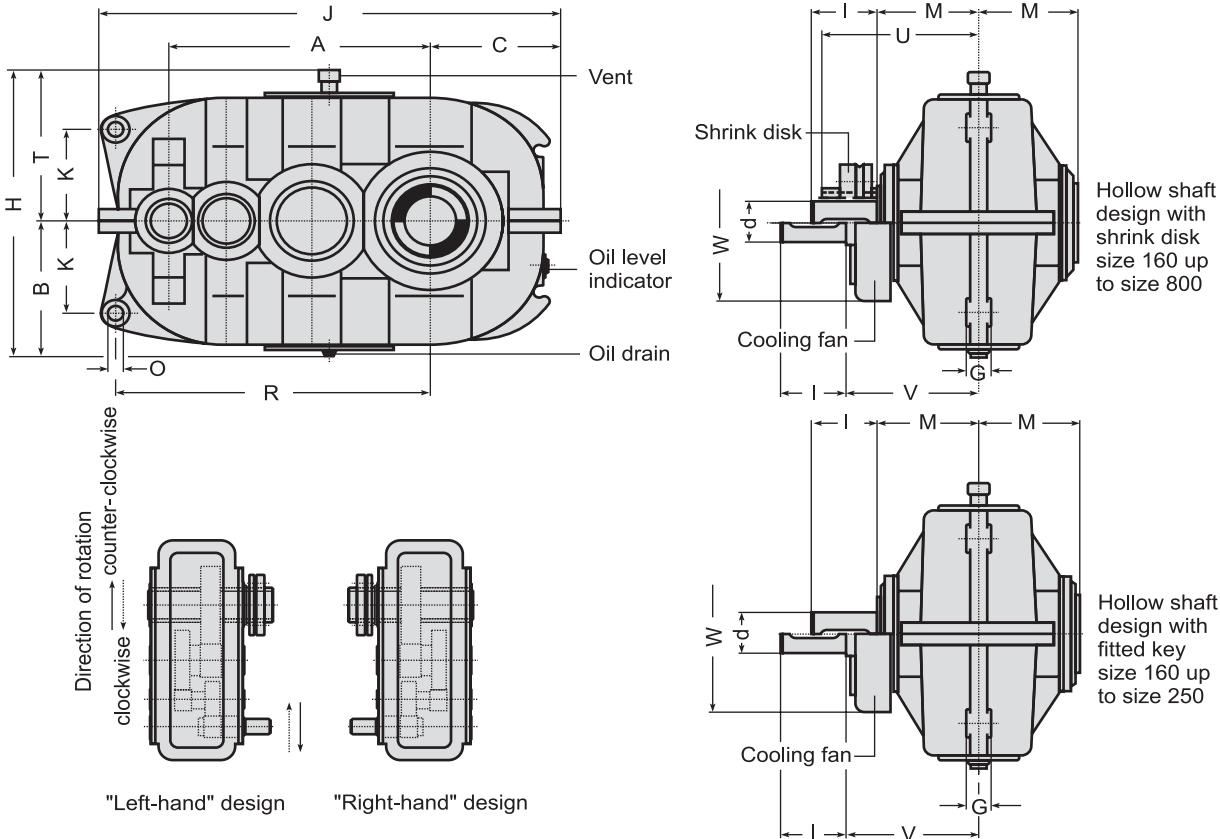
Shaft ends with keys according to DIN 6885, part 1, Shape A.
Shaft centering according to DIN 332, shape DS (with thread)

Tolerance field for shaft ends ISO fit, up to 50 mm $\pm k 6$; over 50 mm $\pm m 6$.

* Under development

OMEX-D/R SERIES modular gear units, shaft mounted
Helical gear, triple reduction

DCA*



Example of a gear unit designation :

Gear unit DCA 200 R

P_N = 43 [kW]; n₁ = 1500 [rpm];
n₂ = 38 [rpm]; i_N = 40 : 1

Normal design, size 200

R: 'right - hand' design for transmission of 43 [kW] at an input speed of n₁ = 1500 [rpm] and a transmission ratio of i_N = 40 : 1

Size of gear unit	Input Shaft i _N ≤ 45		i _N > 45 up to 100		i _N > 100		Dimensions [mm]												Fan cooling	Average weight [kg]	Oil quantity [litres]	
	d	I	d	I	d	I	A	B	C	G	H	J	K	M	O ^{H11}	R	T	U	V	W		
160	25	60	20	50			350	215	190	32	465	645	135	145	20	430	250	225	240	300	141	5
180	30	80	25	60			395	240	215	35	515	725	160	160	25	470	275	250	250	300	188	7
200	35	80	30	80	20	50	440	260	240	45	555	805	165	175	30	535	295	275	275	380	257	9
225	45	110	35	80	25	60	495	290	260	50	610	895	185	190	35	600	320	295	285	380	345	11
250	50	110	40	110	30	80	555	315	290	55	660	990	210	210	40	670	345	325	310	380	460	17
280	55	110	45	110	35	80	620	345	325	60	720	1130	235	230	45	755	375	360	340	530	610	23
315	60	140	50	110	40	110	700	380	355	70	810	1255	265	260	50	855	430	420	365	530	820	36
355	70	140	55	110	45	110	785	415	390	80	880	1400	295	285	55	950	465	450	400	650	1100	50
400	75	140	60	140	50	110	880	460	440	90	970	1565	320	305	60	1065	510	490	425	650	1520	70
450	85	170	70	140	55	110	990	515	490	105	1080	1750	370	345	65	1185	565	550	455	650	2000	100
500	95	170	80	170	60	140	1105	575	550	105	1200	1950	415	475	70	1310	625	715	555	650	3210	130
560	105	210	90	170	70	140	1240	645	610	110	1340	2175	470	510	75	1465	695	760	595	650	4420	200
630	115	210	95	170	80	170	1395	725	695	115	1500	2485	540	560	80	1655	775	840	635	650	6050	280
710	125	250	110	210	90	170	1565	830	760	120	1695	2740	610	600	85	1860	865	890	670	650	8080	390
800	145	250	120	210	100	210	1760	940	840	125	1910	3040	690	645	90	2080	970	955	710	650	10870	540

Larger gear box sizes of this design on enquiry.

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)

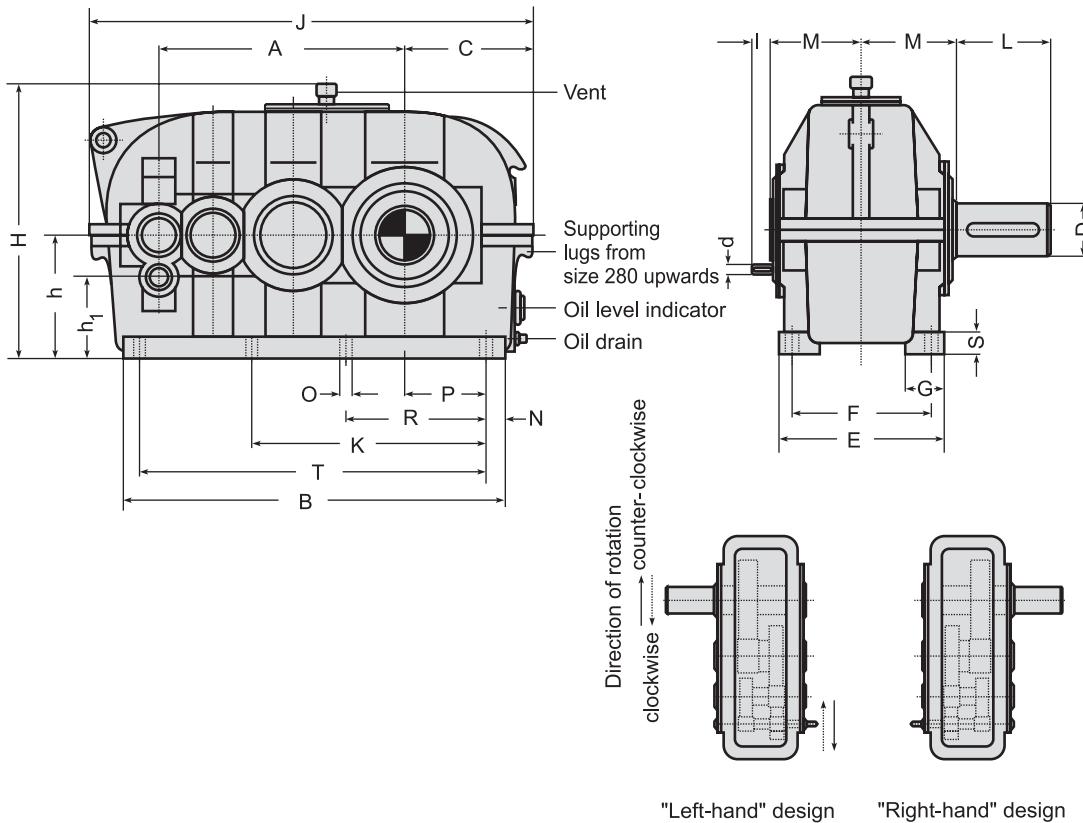
Tolerance field for shaft ends ISO fit, up to 50 mm f k 6; over 50 mm f m 6.

Power ratings
DCN/DCH/DCA

Nominal transmission ratio i_N	Nominal speeds [rpm]; n_1 , n_2	Size of gear unit															
		160	180	200	225	250	280	315	355	400	450	500	560	630	710	800	
		Nominal gear box rating P_N (kW)															
14	1500 107 1000 71 750 53	50 34 26	70 47 36	105 73 55	140 95 74	200 135 105	280 190 150	380 270 215	500 390 300	660 500 390	930 700 580	1810* 1250 940	2540* 1770 1330	3270* 2340 1760	4880* 3420* 2580	4900* 3700	
16	1500 94 1000 62 750 47	46 32 24	65 44 33	95 66 50	130 88 68	180 120 105	260 170 135	350 250 200	460 350 360	600 460 530	860 640 830	1610* 1120 1180	2260* 1580 1560	2910* 2090 2280	4330* 3060* 4390*	3270	
18	1500 83 1000 56 750 41	42 30 22	62 42 32	85 60 45	120 80 62	160 105 85	230 150 120	320 220 170	420 320 330	550 420 480	800 590 780	1490* 1000 1110	2110* 1410 1140	2790* 2720* 2170	4080* 3900* 3140		
20	1500 75 1000 50 750 38	39 27 20	59 39 30	105 54 43	145 70 55	205 140 77	295 200 160	385 290 240	500 380 305	740 550 445	1320* 880 690	1860* 1240 990	2460* 2400* 1920	3600* 3440* 2770			
22.4	1500 67 1000 45 750 33	35 24 18	52 35 26	66 50 38	93 65 49	130 91 69	185 130 96	270 190 215	350 265 275	480 345 400	700 520 620	1170* 1640* 1140	1640* 1040 880	2170* 2120 1710	3180* 3040* 2460		
25	1500 60 1000 40 750 30	30 20 15	44 30 22	62 42 31	83 57 43	115 80 60	160 110 85	235 165 125	330 255 195	450 315 240	660 460 350	1030* 730 550	1460* 1040 780	1930* 1350 1010	2820* 2010 1510	2900*	
28	1500 54 1000 36 750 27	27 18 14	40 27 20	56 38 28	75 52 39	105 72 54	145 100 77	215 150 115	310 230 165	405 285 215	590 420 490	910* 640 690	1290* 910 980	1700* 1190 1330	2440* 2550* 1920		
31.5	1500 48 1000 32 750 24	24 16 13	33 22 17	48 33 25	69 46 34	95 63 49	130 87 65	200 130 100	290 200 150	385 255 190	560 370 280	820* 580 440	1170* 820 620	1540* 1070 810	2260* 1600 1200	2310*	
35.5	1500 42 1000 28 750 21	22 15 11	32 22 16	46 30 23	62 41 31	87 58 43	120 82 61	180 120 90	280 185 140	345 230 175	500 340 250	770 510 385	1100* 720 550	1430* 950 710	2120* 1410 1060	3070*	2030*
40	1500 38 1000 25 750 19	20 14 10	30 21 15	43 28 22	56 52 29	78 52 41	110 72 56	240 205 82	310 205 125	450 300 155	700 465 230	990 660 350	1290 860 495	1920* 1280 960	2770*	1850	
45	1500 33.5 1000 22 750 16.6	17 12 8.5	26 17 13	36 25 18	50 33 26	69 46 36	97 64 50	145 95 74	220 150 115	275 180 140	400 265 205	620 455 320	880 640 455	1150* 760 600	1710* 1140 880	2480*	1650
50	1500 30 1000 20 750 15	15 11 8	23 15 12	32 22 16	44 31 23	62 43 32	87 60 44	130 100 100	200 135 120	245 165 120	360 240 230	550 365 290	780 520 410	1030 690 540	1540* 1020 780	2220*	1480
56	1500 27 1000 18 750 13.4	14 9.5 7	20 14 10	28 19 15	39 38 21	55 53 28	77 53 40	115 77 59	175 120 91	220 145 110	400 265 205	620 455 320	880 640 475	1150* 760 360	1710* 1140 475	2480*	1330
63	1500 24 1000 16 750 12	11 7.5 6	17 11 8.5	23 22 12	35 22 18	45 31 23	63 43 32	100 69 52	150 105 78	195 130 98	285 240 145	440 360 230	630 550 325	810 520 430	1220 690 630	1760 1180 900	
71	1500 21 1000 14 750 10.5	9.5 6.5 5	15 10 7.5	21 14 11	31 22 16	40 27 24	56 39 30	90 61 43	135 92 69	175 115 105	250 180 130	395 270 200	560 380 285	730 500 380	1090 730 550	1570 1050 790	
80	1500 18.8 1000 12.5 750 9.4	8.5 6 4.5	14 9 7	19 13 10	29 19 14	36 24 19	51 34 27	82 54 40	120 82 63	155 100 76	230 150 110	350 240 180	495 340 255	640 450 340	960 650 495	1390 940 700	
90	1500 16.7 1000 11.1 750 8.3	8 5.5 4	12 8 6	17 11 7	26 22 10	32 22 19	46 31 24	74 49 37	110 74 57	140 92 69	205 135 69	320 210 160	455 300 225	600 395 295	880 570 430	1260 820 620	
100	1500 15 1000 10 750 7.5		9.5 6.5 5	16 11 8	24 21 12	30 21 16	44 30 22	60 40 30	95 63 47	130 86 65	175 115 87	290 190 145	410 270 205	540 360 270	780 520 395	1130 750 560	
112	1500 13.4 1000 8.9 750 6.7			15 10 7.5	21 14 11	29 19 15	40 27 20	53 48 27	84 78 43	115 78 58	155 105 78	255 170 130	360 245 185	475 325 245	690 470 355	990 670 510	
Nominal transmission ratio i_N	input speeds [rpm]; n_1	Size of gear unit															
		160	180	200	225	250	280	315	355	400	450	500	560	630	710	800	
		Thermal capacity, P_{G1} (kW), for gear boxes without cooling															
14 to 35.5	1500 42 1000 39 750 33	53 48 54	65 60 75	90 80 90	108 98 125	132 125 152	172 168 195	212 202 242	265 255 324	335 330 312	405 400 388	510 490 485	650 630 620	790 760 750	1010 990 970		
40 to 112	1500 36 1000 32 750 30	48 44 40	60 55 50	80 70 65	97 88 80	122 112 100	165 155 135	202 192 172	255 243 222	330 310 295	395 375 368	495 475 468	630 605 595	770 740 720	990 960 940		
14 to 35.5	1500 75 1000 65 750 61	Thermal capacity, P_{G2} (kW), for gear boxes with fan cooling															
		75	90	110	140	170	220	270	340	420	520	640	800	1050	1) 1)		
		65	83	100	130	160	205	250	320	380	492	590	750	1002	1) 1)		
40 to 112	1500 72 1000 63 750 58	88	106	138	162	205	260	324	387	500	590	755	1000	1) 1)			
14 to 35.5	1500 72 1000 63 750 58 <td>88</td> <td>106</td> <td>138</td> <td>162</td> <td>205</td> <td>260</td> <td>324</td> <td>387</td> <td>500</td> <td>590</td> <td>755</td> <td>1000</td> <td>1) 1)</td> <td></td>	88	106	138	162	205	260	324	387	500	590	755	1000	1) 1)			
		95	115	132	160	195	245	305	360	466	552	700	942	1) 1)			
		95	125	153	195	232	290	342	445	522	670	900	1145	1) 1)			
14 to 35.5	1500 72 1000 63 750 58 <td>120</td> <td>140</td> <td>170</td> <td>210</td> <td>250</td> <td>324</td> <td>387</td> <td>500</td> <td>590</td> <td>755</td> <td>1000</td> <td>1) 1)</td> <td></td>	120	140	170	210	250	324	387	500	590	755	1000	1) 1)				
		120	144	167	200	252	318	360	450	540	673	777	1040	1250	1) 1)		
		120	144	167	200	252	318	360	450	540	673	777	1192	1145	1) 1)		
14 to 35.5	1500 72 1000 63 750 58 <td>120</td> <td>140</td> <td>170</td> <td>210</td> <td>250</td> <td>324</td> <td>387</td> <td>500</td> <td>590</td> <td>755</td> <td>1000</td> <td>1) 1)</td> <td></td>	120	140	170	210	250	324	387	500	590	755	1000	1) 1)				
		120	144	167	200	252	318	360	450	540	673	777	1192	1145	1) 1)		
		120	144	167	200	252	318	360	450	540	673	777	1192	1145	1) 1)		
14 to 35.5	1500 72 1000 63 750 58 <td>120</td> <td>140</td> <td>170</td> <td>210</td> <td>250</td> <td>324</td> <td>387</td> <td>500</td> <td>590</td> <td>755</td> <td>1000</td> <td>1) 1)</td> <td></td>	120	140	170	210	250	324	387	500	590	755	1000	1) 1)				
		120	144	167	200	252	318	360	450	540	673	777	1192	1145	1) 1)		
		120	144	167	200	252	318	360	450	540	673	777	1192	1145	1) 1)		
14 to 35.5	1500 72 1000 63 750 58 <td>120</td> <td>140</td> <td>170</td> <td>210</td> <td>250</td> <td>324</td> <td>387</td> <td>500</td> <td>590</td> <td>755</td> <td>1000</td> <td>1) 1)</td> <td></td>	120	140	170	210	250	324	387	500	590	755	1000	1) 1)				
		120	144	167	200	252	318	360	450	540	673	777	1192	1145	1) 1)		
		120	144	167	200	252	318	360	450	540	673	777	1192	1145	1) 1)		
14 to 35.5	1500 72 1000 63 750 58 <td>120</td> <td>140</td> <td>170</td> <td>210</td> <td>250</td> <td>324</td> <td>387</td> <td>500</td> <td>590</td> <td>755</td> <td>1000</td> <td>1) 1)</td> <td></td>	120	140	170	210	250	324	387	500	590	755	1000	1) 1)				
		120	144	167	200	252	318	360	450	540	673	777	1192	1145	1) 1)		
		120	144	167	200	252	318	360	450	540	673	777	1192	1145	1) 1)		
14 to 35.																	

OMEX-D/R SERIES modular gear units,
Helical gear, quadruple reduction

DDN*



"Left-hand" design "Right-hand" design

Example of a gear unit designation :

Gear unit DDN 280 R

P_N = 22 [kW]; n₁ = 1500 rpm ;
n₂ = 7.5 [rpm]; i_N = 200 : 1

Normal design, size 280

R: 'right - hand' design for transmission of 22 [kW]
at an input speed of n₁ = 1500 [rpm] and a transmission ratio of i_N = 200 : 1

Size of gear unit	Input Shaft		Output shaft		Dimensions [mm]																		Average weight [kg]	Oil quantity [litres]		
	i _N ≤ 500	i _N > 500			A	B	C	E	F	G	h	h ₁	H	J	K	M	N	O	P	R	S	T				
225	18	40			100	210	495	775	260	320	270	80	250	170	570	895	190	35	23	165	290	45	705	405	22	
250	22	50			110	210	555	860	290	370	310	90	280	190	625	1000	210	40	27	180	315	50	780	540	28	
280	25	60	20	50	120	210	620	970	325	400	340	100	315	215	690	1130	230	45	27	200	355	55	880	720	39	
315	30	80	25	60	140	250	700	1085	355	450	380	110	355	245	785	1255	655	260	50	33	220	405	60	985	970	56
355	40	110	30	80	160	300	785	1220	390	480	410	120	400	275	865	1400	740	285	55	33	245	450	65	1110	1300	80
400	45	110	35	80	170	300	880	1355	440	530	460	130	450	310	960	1565	840	305	55	33	280	510	70	1245	1770	115
450	50	110	40	110	190	350	990	1520	490	600	510	140	500	340	1065	1750	940	345	60	39	315	575	80	1400	2350	165
500	55	110	45	110	220	350	1105	1690	550	650	560	150	560	380	1185	1950	1050	475	70	39	350	645	90	1550	3850	220
560	60	140	50	110	250	410	1240	1895	610	750	640	160	630	430	1325	2175	1165	510	80	45	390	715	100	1735	5300	310
630	70	140	55	110	300	470	1395	2145	695	800	690	170	710	485	1485	2485	1320	560	80	45	445	800	110	1985	7250	450
710	75	140	60	140	340	550	1565	2400	760	900	770	190	800	550	1665	2740	1490	600	90	45	500	900	125	2220	10100	670
800	85	170	70	140	400	650	1760	2700	840	1000	870	200	900	620	1870	3040	1680	645	90	45	560	1100	140	2520	14100	900

Larger gear box sizes of this design on enquiry.

Modification of dimensions reserved.

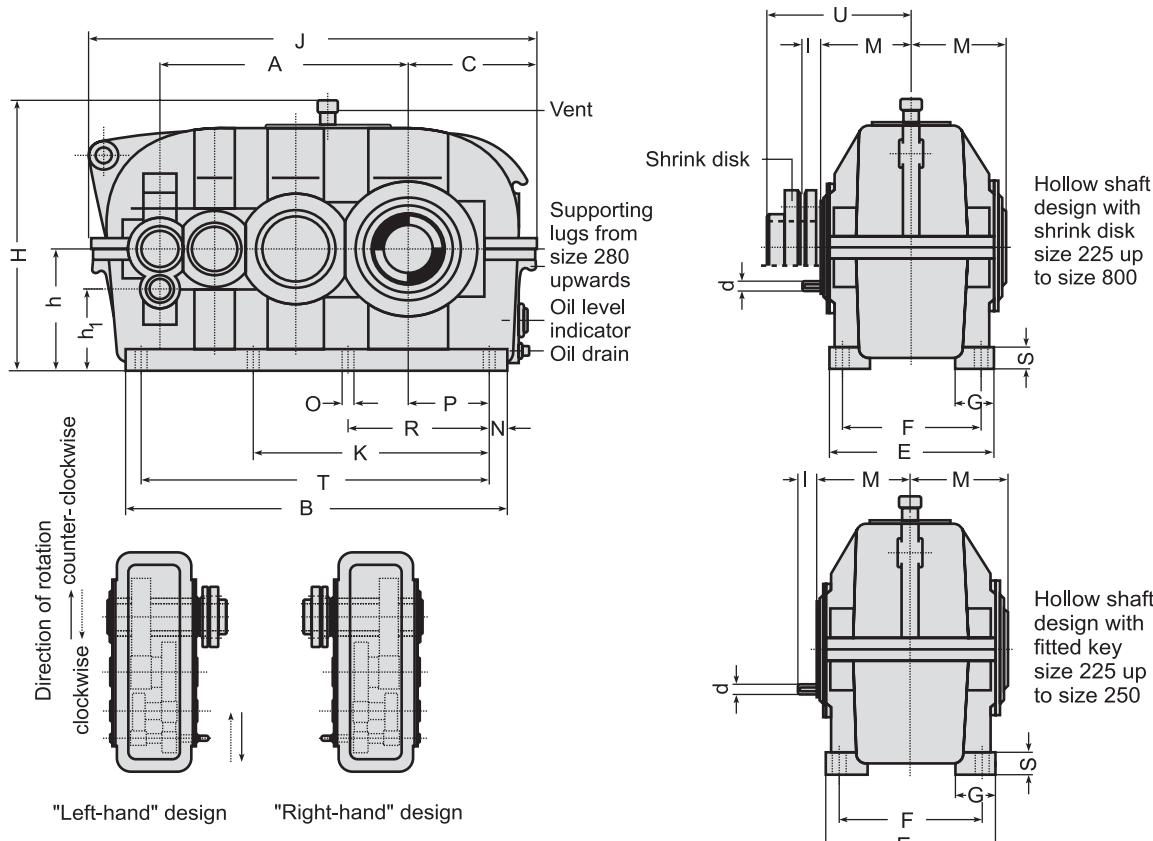
Shaft ends with keys according to DIN 6885, part 1, Shape A.

Shaft centering according to DIN 332, shape DS (with thread)

Tolerance field for shaft ends ISO fit, up to 50 mm f k 6; over 50 mm f m 6.

OMEX-D/R SERIES modular gear units, hollow shaft, footmounted - Helical gear, quadruple reduction

DDH*



Example of a gear unit designation :

Gear unit DDH 280 R

$P_N = 22 \text{ [kW]}$; $n_1 = 1500 \text{ [rpm]}$;

$n_2 = 7.5 \text{ [rpm]}$; $i_N = 200 : 1$

Normal design, size 280

R: 'right - hand' design for transmission of 22 [kW] at an input speed of $n_1 = 1500 \text{ [rpm]}$ and a transmission ratio of $i_N = 200 : 1$

Size of gear unit	Input Shaft				Dimensions [mm]																		Average oil quantity weight [kg]	Oil quantity [litres]		
	$i_N \leq 500$	$i_N > 500$	d	I	d	I	A	B	C	E	F	G	h	h_1	H	J	K	M	N	O	P	R	S	T	U	
225	18	40			495	775	260	320	270	80	250	170	570	895		190	35	23	165	290	45	705	295	405	22	
250	22	50			555	860	290	370	310	90	280	190	625	1000		210	40	27	180	315	50	780	325	540	28	
280	25	60	20	50	620	970	325	400	340	100	315	215	690	1130		230	45	27	200	355	55	880	360	720	39	
315	30	80	25	60	700	1085	355	450	380	110	355	245	785	1255		655	260	50	33	220	405	60	985	420	970	56
355	40	110	30	80	785	1220	390	480	410	120	400	275	865	1440		740	285	55	33	245	450	65	1110	450	1300	80
400	45	110	35	80	880	1355	440	530	460	130	450	310	960	1565		840	305	55	33	280	510	70	1245	490	1770	115
450	50	110	40	110	990	1520	490	600	510	140	500	340	1065	1750		940	345	60	39	315	575	80	1400	550	2350	165
500	55	110	45	110	1105	1690	550	650	560	150	560	380	1185	1950		1050	475	70	39	350	645	90	1550	715	3850	220
560	60	140	50	110	1240	1895	610	750	640	160	630	430	1325	2175		1165	510	80	45	390	715	100	1735	760	5300	310
630	70	140	55	110	1395	2145	695	800	690	170	710	485	1485	2485		1320	560	80	45	445	800	110	1985	840	7250	450
710	75	140	60	140	1565	2400	760	900	770	190	800	550	1665	2740		1490	600	90	45	500	900	125	2220	890	10100	670
800	85	170	70	140	1760	2700	840	1000	870	200	900	620	1870	3040		1680	645	90	45	560	1100	140	2520	955	14100	900

Larger gear box sizes of this design on enquiry.

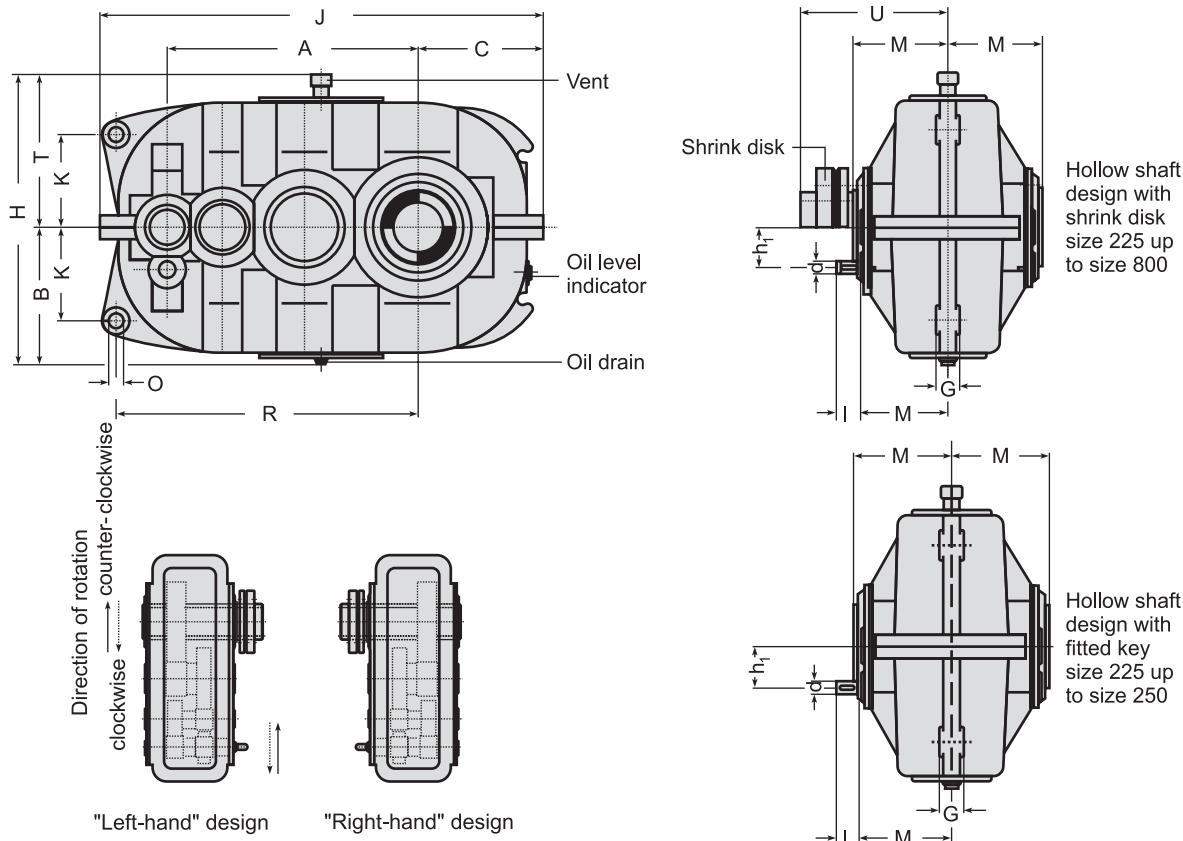
Modification of dimensions reserved.

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 50 mm $\pm k 6$; over 50 mm $\pm m 6$.

OMEX-D/R SERIES modular gear units, shaftmounted
Helical gear, quadruple reduction

DDA*



Example of a gear unit designation :

Gear unit DDA 280 R
 $P_N = 22 \text{ [kW]}$; $n_1 = 1500 \text{ [rpm]}$;
 $n_2 = 7.5 \text{ [rpm]}$; $i_N = 200 : 1$

Normal design, size 280

R: 'right - hand' design for transmission of 22 [kW] at an input speed of $n_1 = 1500 \text{ [rpm]}$ and a transmission ratio of $i_N = 200 : 1$

Size of gear unit	Input Shaft				Dimensions [mm]														Average weight [kg]	Oil quantity [litres]
	$i_N \leq 500$	$i_N > 500$	d	I	A	B	C	G	h1	H	J	K	M	O^{H11}	R	T	U			
225	18	40			495	290	260	50	80	610	895	185	190	35	600	320	295	245	11	
250	22	50			555	315	290	55	90	660	1000	210	210	40	670	345	325	460	17	
280	25	60	20	50	620	345	325	60	100	720	1120	235	230	45	755	375	360	610	23	
315	30	80	25	60	700	380	355	70	110	810	1255	265	260	50	855	430	420	820	36	
355	40	110	30	80	785	415	390	80	125	880	1440	295	285	55	950	465	450	1100	50	
400	45	110	35	80	880	460	440	90	140	970	1565	320	305	60	1065	510	490	1520	70	
450	50	110	40	110	990	515	490	105	160	1080	1750	370	345	65	1185	565	550	2000	100	
500	55	110	45	110	1105	575	550	105	180	1200	1950	415	475	70	1310	625	715	3210	130	
560	60	140	50	110	1240	645	610	110	200	1340	2175	470	510	75	1465	695	760	4420	200	
630	70	140	55	110	1395	725	695	115	225	1500	2485	540	560	80	1655	775	840	6050	280	
710	75	140	60	140	1565	830	760	120	250	1695	2740	610	600	85	1885	865	890	8160	390	
800	85	170	70	140	1760	940	840	125	280	1910	3040	690	645	90	2080	970	955	10870	540	

Larger gear box sizes of this design on enquiry.

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 50 mm $\pm k 6$; over 50 mm $\pm m 6$.

Power ratings
DDN/DDH/DDA

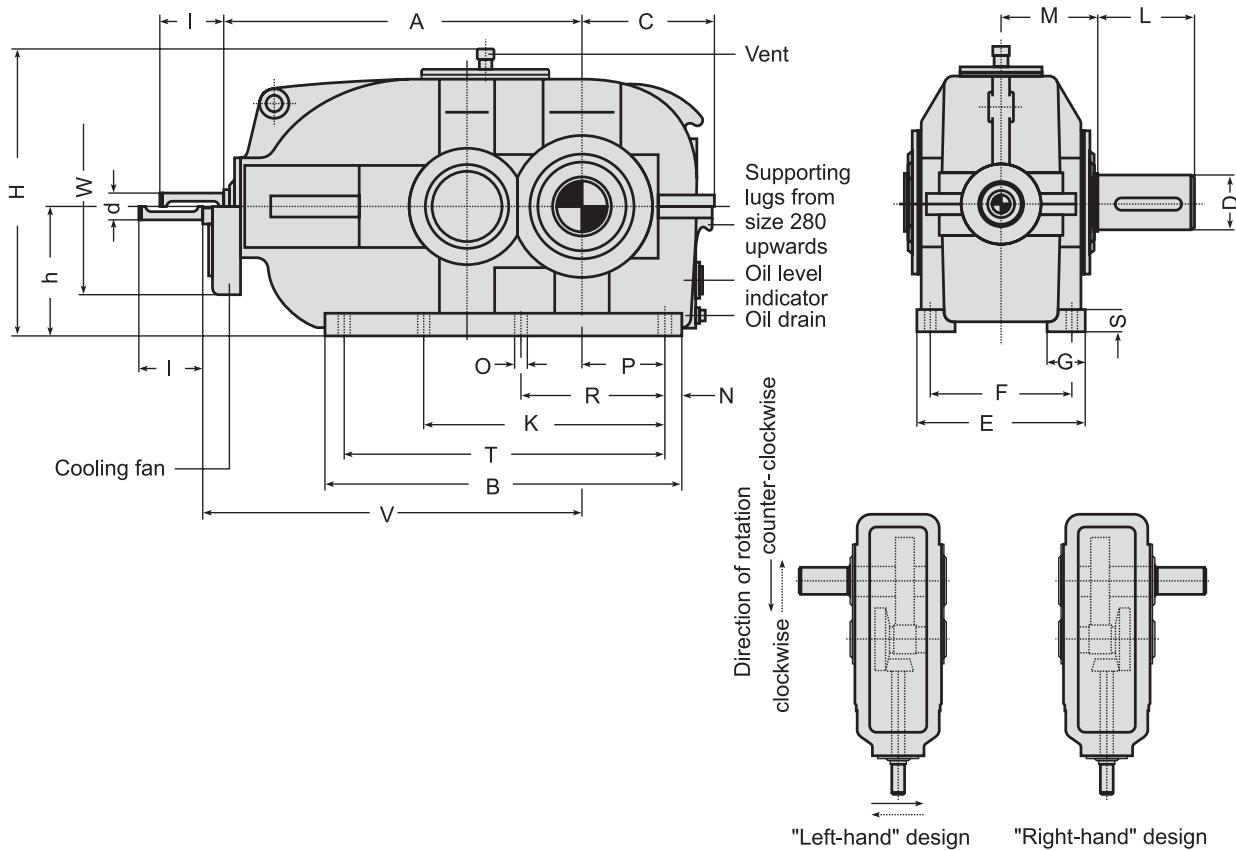
Nominal transmission ratio i_N	Nominal speeds [rpm]; n_1 , n_2	Size of gear unit												
		225	250	280	315	355	400	450	500	560	630	710	800	
		Nominal gear box rating P_N (kW)												
112	1500 1000 750	13.4 8.9 6.7	20 14 10	29 20 15	40 27 20	59 39 29	91 59 43	110 70 53	160 105 83	255 170 130	360 240 185	480 320 235	690 470 355	990 670 500
125	1500 1000 750	12 8 6	18 12 9	26 17 13	36 23 18	52 34 26	81 53 40	97 64 48	145 95 71	230 155 115	320 210 160	425 285 210	610 420 310	880 570 440
140	1500 1000 750	10.7 7.15 5.4	16 11 8	23 16 12	32 21 16	46 31 23	72 47 36	87 58 44	130 85 65	205 135 100	290 190 145	380 250 190	550 365 275	800 520 395
160	1500 1000 750	9.37 6.25 4.68	14 9.5 7.5	20 14 10	28 18 14	41 27 21	63 42 32	76 51 39	115 75 58	180 120 91	255 170 130	340 225 170	495 330 250	710 470 360
180	1500 1000 750	8.34 5.56 4.17	13 8.5 6.5	19 12 9.5	25 25 18	37 38 29	57 46 35	69 68 51	100 88 81	160 105 81	225 150 115	295 200 155	435 290 220	630 420 320
200	1500 1000 750	7.5 5 3.75	12 8 6	15 10 8	22 14 11	33 22 17	51 34 26	62 41 30	92 61 44	145 96 72	205 135 100	270 180 135	395 260 200	560 375 280
224	1500 1000 750	6.7 4.47 3.35	10 7 5	14 9 7	19 13 10	29 20 15	45 30 23	55 37 28	82 54 41	130 86 65	185 120 92	240 160 120	355 235 175	500 340 255
250	1500 1000 750	6 4 3	9.5 6 4.5	12 8.5 6.5	17 12 9	26 17 13	40 27 20	48 32 24	71 48 36	115 77 58	165 110 82	215 145 110	315 210 155	450 300 225
280	1500 1000 750	5.35 3.57 2.67	8 5.5 4	11 7.5 5.5	15 10 8	23 15 12	36 24 18	44 29 22	65 43 32	100 67 50	145 95 71	190 125 95	275 185 140	395 265 195
315	1500 1000 750	4.76 3.17 2.38	7.5 5 3.5	9.5 6.5 5	13 9 7	21 14 10	32 25 20	39 37 29	58 37 29	91 60 46	130 86 65	170 115 86	250 165 125	355 235 180
355	1500 1000 750	4.23 2.82 2.12	6.5 4.5 3	8.5 6 4.5	12 8.5 6.5	18 12 9.5	29 19 14	35 23 17	51 34 25	82 53 41	115 75 58	155 99 77	225 145 110	320 205 160
400	1500 1000 750	3.75 2.5 1.88	6 4 3	8 5 4	11 7.5 5.5	16 11 8	26 17 13	31 20 15	45 30 23	71 48 35	100 68 52	135 90 66	195 130 98	280 190 135
450	1500 1000 750	3.33 2.22 1.66	5 3.5 2.5	7.5 5 3.5	10 6.5 5	13 9 6.5	21 14 11	29 19 14	39 26 19	65 43 32	92 60 46	120 81 60	175 115 88	255 170 125
500	1500 1000 750	3 2 1.6		6.5 4.5 3	9 6 4.5	12 8 6	19 13 9.5	26 17 13	35 23 17	58 38 29	82 54 41	110 72 54	155 105 79	225 150 115
560	1500 1000 750	2.68 1.78 1.34			8 5.5 4	11 7 5.5	17 11 8.5	23 16 12	30 21 16	50 35 26	71 49 37	95 65 49	140 94 71	195 135 100
630	1500 1000 750	2.38 1.59 1.19				9.5 6.5 5	15 10 7.5	21 14 10	28 18 14	46 30 23	65 43 33	86 57 43	125 83 63	180 120 90
Nominal transmission ratio i_N	input speeds [rpm]; n_1	Size of gear unit												
		225	250	280	315	355	400	450	500	560	630	710	800	
		Thermal capacity, P_{G1} (kW), for gear boxes without cooling												
112 to 630	1500 1000 750	38 35 30	50 45 40	66 55 53	90 80 74	105 95 90	135 120 110	170 150 140	210 200 180	275 255 225	360 340 290	430 410 385	550 530 490	

For power ratings indicated in **heavy type** a check of the thermal capacity is always necessary (see the example of a calculation).

At normal type print this is necessary only at an ambient temperature deviating from 20°C. Thermal capacity, P_{G2} [kW] and dimensions for gears with fan cooling on request. The nominal transmission ratio is maintained with a tolerance of about – 3% Intermediate transmission ratios are possible.

OMEX-D/R SERIES modular gear units
Bevel Helical gear, double reduction

RBN*



Example of a gear unit designation :

Gear unit RBN 200 R

$P_N = 130 \text{ [kW]}$; $n_1 = 1500 \text{ rpm}$;
 $n_2 = 150 \text{ [rpm]}$; $i_N = 10 : 1$

Normal design, size 200

R: 'right - hand' design for transmission of 130 [kW] at an input speed of $n_1 = 1500 \text{ [rpm]}$ and a transmission ratio of $i_N = 10 : 1$

Size of gear unit	Input Shaft				Output shaft	Dimensions [mm]																Fan cooling	Average weight [kg]	Oil quantity [litres]			
	$i_N \leq 10$	$i_N > 10$	d	I		d	I	D	L	A	B	C	E	F	G	h	H	K	M	N	O	P	R	S	T	V	W
80	16	40	16	40	32	80	250	245	100	130	105	35	90	230			80	15	11.5	50	95	15	215	350	180	28	1.5
90	20	50	20	50	38	80	280	275	115	140	116	40	100	250			90	15	11.5	60	110	20	245	380	180	37	2
100	20	50	20	50	45	110	315	310	125	160	130	45	110	270			100	20	14	65	120	20	270	415	180	50	2.5
110	25	60	20	50	48	110	350	350	140	180	150	50	125	310			110	20	14	80	140	25	310	450	230	65	3
125	30	80	25	60	55	110	395	395	155	200	170	55	140	340			120	20	14	95	170	25	355	500	230	90	4
140	35	80	30	80	60	140	440	440	175	220	190	60	160	380			135	20	14	110	195	30	400	545	300	120	5
160	40	110	35	80	70	140	500	500	190	250	210	65	180	430			145	30	18	115	210	35	440	605	300	165	7
180	42	110	40	110	80	170	565	565	215	270	230	70	200	475			160	30	18	135	240	35	505	685	380	220	9
200	50	110	45	110	90	170	625	625	240	300	250	75	225	520			175	35	23	145	255	40	555	745	380	290	13
225	55	110	50	110	100	210	705	705	260	320	270	80	250	570			190	35	23	165	290	45	635	835	380	395	18
250	60	140	55	110	110	210	785	785	290	370	310	90	280	625			210	40	27	180	315	50	705	910	530	530	25
280	65	140	60	140	120	210	875	875	325	400	340	100	315	690			230	45	27	200	355	55	785	1015	530	720	36
315	75	140	70	140	140	250	975	975	355	450	380	110	355	785			260	50	33	220	405	60	875	1115	650	970	51
355	90	170	80	170	160	300	1085	1085	390	480	410	120	400	865			285	55	33	245	450	65	975	1220	650	1305	69
400	100	210	90	170	170	300	1215	1215	440	530	460	130	450	960			305	55	33	280	510	70	1105	1350	650	1765	95
450	110	210	95	170	190	350	1365	1365	490	600	510	140	500	1065	940	345	60	39	315	575	80	1245	1500	650	2380	130	
500	120	210	110	210	220	350	1525	1525	550	650	560	150	560	1185	1050	475	70	39	350	645	90	1385	1655	650	3950	185	
560	130	250	120	210	250	410	1705	1705	610	750	640	160	630	1325	1165	510	80	45	390	715	100	1545	1835	650	5520	260	

Larger gear box sizes of this design on enquiry.

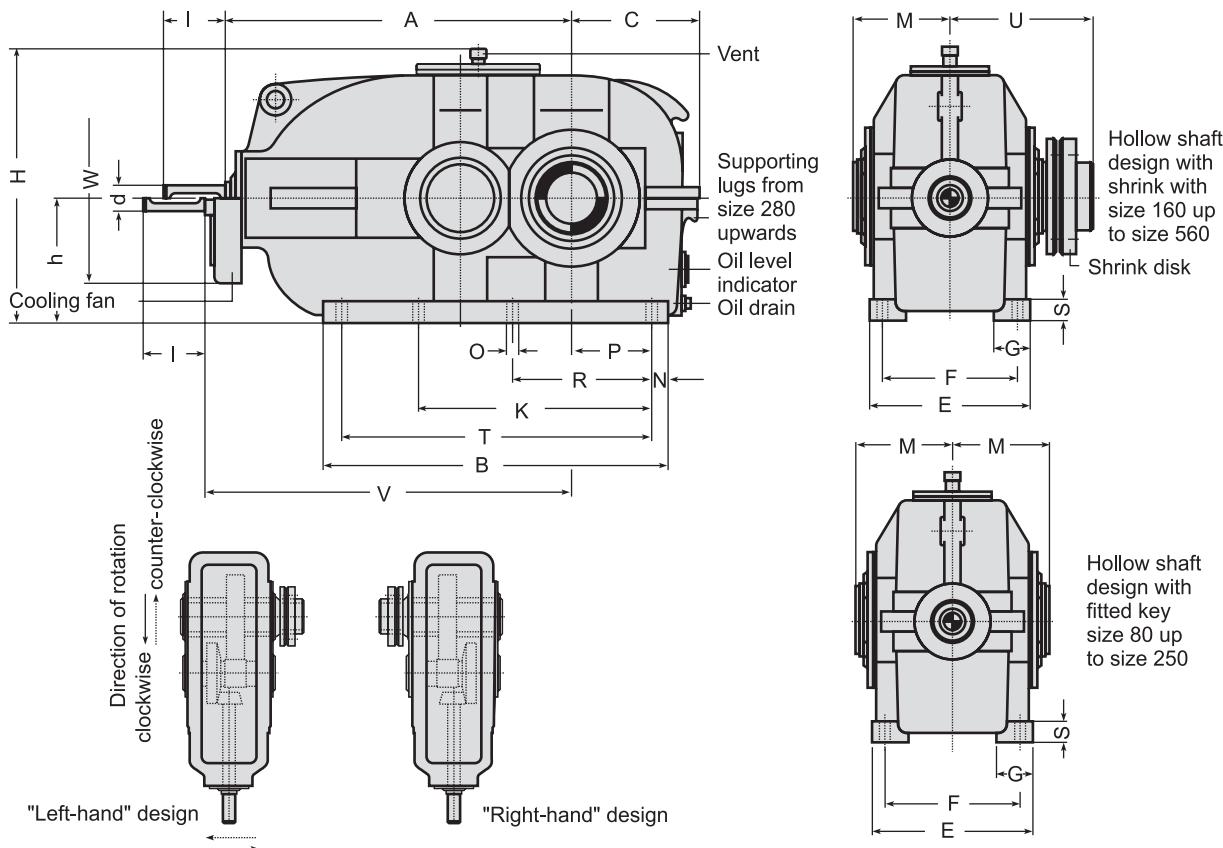
Modification of dimensions reserved.

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 50 mm $\pm k 6$; over 50 mm $\pm m 6$.

OMEX-D/R SERIES modular gear units, hollow shaft
footmounted - Helical gear, double reduction

RBH*



Example of a gear unit designation :

Gear unit RBH 200 R

$P_N = 130 \text{ [kW]}$; $n_1 = 1500 \text{ rpm}$;
 $n_2 = 150 \text{ [rpm]}$; $i_N = 10 : 1$

Normal design, size 200

R: 'right - hand' design for transmission of 130 [kW]
at an input speed of $n_1 = 1500 \text{ [rpm]}$ and a transmission ratio of $i_N = 10 : 1$

Size of gear unit	Input Shaft		Dimensions [mm]																		F _{cooling}	Average weight [kg]	Oil quantity [litres]			
	$i_N \leq 10$	$i_N > 10$	d	I	d	I	A	B	C	E	F	G	h	H	K	M	N	O	P	R	S	T	U	V	W	
80	16	40	16	40	250	245	100	120	95	35	90	230			80	15	11.5	50	95	15	215		350	180	28	1.5
90	20	50	20	50	280	275	115	140	116	40	100	250			90	15	11.5	60	110	20	245		380	180	37	2
100	20	50	20	50	315	310	125	160	130	45	110	270			100	20	14	65	120	20	270		415	180	50	2.5
110	25	60	20	50	350	350	140	180	150	50	125	310			110	20	14	80	140	25	310		450	230	65	3
125	30	80	25	60	395	395	155	200	170	55	140	340			120	20	14	95	170	25	355		500	230	90	4
140	35	80	30	80	440	440	175	220	190	60	160	380			135	20	14	110	195	30	400		545	300	120	5
160	40	110	35	80	500	500	190	250	210	65	180	430			145	30	18	115	210	35	440	225	605	300	155	7
180	42	110	40	110	565	565	215	270	230	70	200	475			160	30	18	135	240	35	505	250	685	380	220	9
200	50	110	45	110	625	625	240	300	250	75	225	520			175	35	23	145	255	40	555	275	745	380	290	13
225	55	110	50	110	705	705	260	320	270	80	250	570			190	35	23	165	290	45	635	295	835	380	395	18
250	60	140	55	110	785	785	290	370	310	90	280	625			210	40	27	180	315	50	705	325	910	530	530	25
280	65	140	60	140	875	875	325	400	340	100	315	690			230	45	27	200	355	55	785	360	1015	530	720	36
315	75	140	70	140	975	975	355	450	380	110	355	785			260	50	33	220	405	60	875	420	1115	650	970	51
355	90	170	80	170	1085	1085	390	480	410	120	400	865			285	55	33	245	450	65	975	450	1220	650	1305	69
400	100	210	90	170	1215	1215	440	530	460	130	450	960			305	55	33	280	510	70	1105	490	1350	650	1765	95
450	110	210	95	170	1365	1365	490	600	510	140	500	1065	940	345	60	39	315	575	80	1245	550	1500	650	2380	130	
500	120	210	110	210	1525	1525	550	650	560	150	560	1185	1050	475	70	39	350	645	90	1385	715	1655	650	3950	185	
560	130	250	120	210	1705	1705	610	750	640	160	630	1325	1165	510	80	45	390	715	100	1545	760	1835	650	5520	260	

Larger gear box sizes of this design on enquiry.

Modification of dimensions reserved.

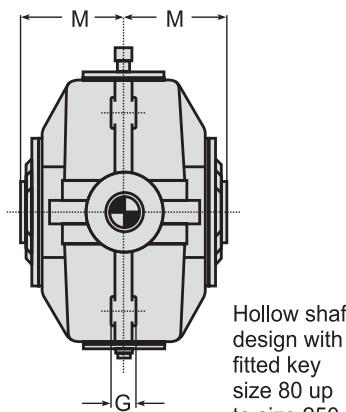
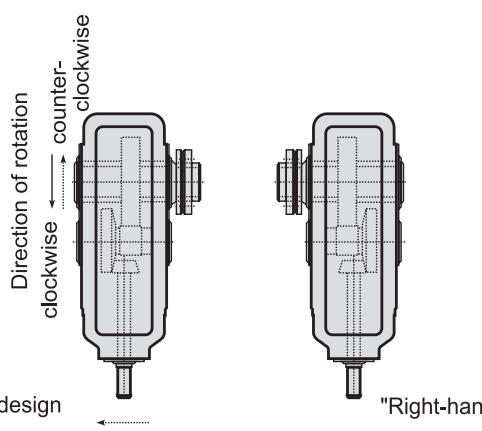
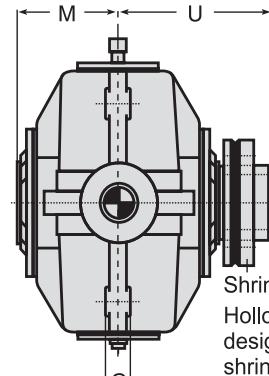
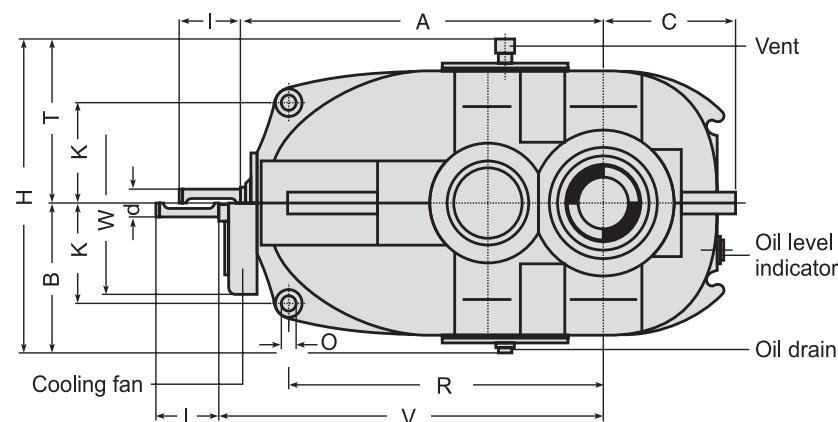
Shaft ends with keys according to DIN 6885, part 1, Shape A.
Shaft centering according to DIN 332, shape DS (with thread)

Tolerance field for shaft ends ISO fit, up to 50 mm $\pm k 6$; over 50 mm $\pm m 6$.

* Under development

OMEX-D/R SERIES modular gear units, shaftmounted
Bevel Helical gear, double reduction

RBA*



Example of a gear unit designation :

Gear unit RBA 200 R

$P_N = 130 \text{ [kW]}$; $n_1 = 1500 \text{ rpm}$;
 $n_2 = 150 \text{ [rpm]}$; $i_N = 10 : 1$

Normal design, size 200

R: 'right - hand' design for transmission of 130 [kW]
at an input speed of $n_1 = 1500 \text{ [rpm]}$ and a transmission ratio of $i_N = 10 : 1$

Size of gear unit	Input Shaft				Dimensions [mm]												Fan cooling		Average weight [kg]	Oil quantity [litres]
	$i_N \leq 10$		$i_N > 10$		A	B	C	G	H	K	M	O^{H11}	R	T	U	V	W			
d	I	d	I																	
80	16	40	16	40	250	115	100	20	255	75	80	10	215	140		350	180	24	0.5	
90	20	50	20	50	280	130	115	22	280	80	90	12	240	150		380	180	30	0.7	
100	20	50	20	50	315	145	125	25	305	85	100	15	270	160		415	180	42	1	
110	25	60	20	50	350	160	140	25	345	95	110	18	305	185		450	230	55	1.5	
125	30	80	25	60	395	175	155	28	375	105	120	18	340	200		500	230	80	2.5	
140	35	80	30	80	440	195	175	30	415	120	135	20	370	220		545	300	105	3	
160	40	110	35	80	500	215	190	32	465	135	145	20	435	250	225	605	300	145	4	
180	42	110	40	110	565	240	215	35	515	155	160	25	495	275	250	685	380	190	5	
200	50	110	45	110	625	260	240	45	555	170	175	30	560	295	275	745	380	250	8	
225	55	110	50	110	705	290	260	50	610	185	190	35	625	320	295	835	380	330	12	
250	60	140	55	110	785	315	290	55	660	205	210	40	690	345	325	910	530	460	15	
280	65	140	60	140	875	345	325	60	720	225	230	45	770	375	360	1015	530	620	21	
315	75	140	70	140	975	380	355	70	810	260	260	50	875	430	420	1115	650	840	30	
355	90	170	80	170	1085	415	390	80	880	285	285	55	965	465	450	1220	650	1130	40	
400	100	210	90	170	1215	460	440	90	970	310	305	60	1090	510	490	1350	650	1500	55	
450	110	210	95	170	1365	515	490	105	1080	360	345	65	1215	565	550	1500	650	2000	75	
500	120	210	110	210	1525	575	550	105	1200	410	475	70	1360	625	715	1655	650	3265	105	
560	130	250	120	210	1705	645	610	110	1340	450	510	75	1530	695	760	1835	650	4505	150	

Larger gear box sizes of this design on enquiry.

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 50 mm $\pm k 6$; over 50 mm $\pm m 6$.

Power ratings
RBN/RBH/RBA

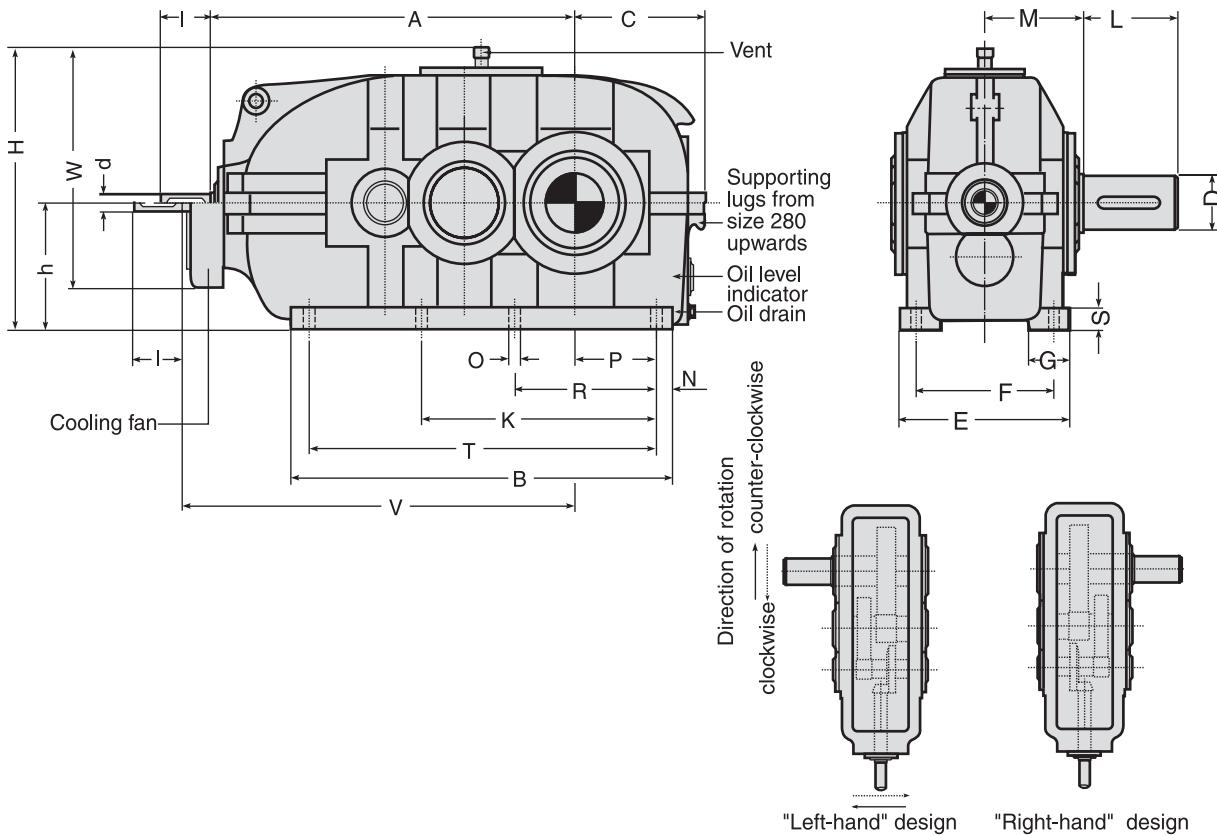
Nominal transmission ratio i_N	Nominal speeds [rpm]; n_1 , n_2	Size of gear unit																		
		80	90	100	110	125	140	160	180	200	225	250	280	315	355	400	450	500	560	
Nominal gear box rating P_N (kW)																				
6.3	1500 1000 750	240 160 120	12 8 6	18 12 9	24 16 12	28 21 17	45 34 24	65 49 40	94 70 56	115 86 71	165 125 100	240 180 145	360 270 210	460 345 275	610 465 380	790 590 490	1290* 970 790	1850* 1380 1030	2100* 1800 1450	2400* 2200* 1850
7.1	1500 1000 750	210 140 105	12 8 6	16 11 8	24 16 12	28 21 17	45 32 24	65 49 56	94 70 68	115 86 94	155 115 135	225 170 200	345 265 275	460 345 380	610 465 490	790 590 490	1180* 890 720	1740* 1310 1030	2100* 1800 1450	2400* 2200* 1850
8	1500 1000 750	188 125 94	9 6 4.5	13 9 6.5	19 13 10	28 18 14	40 27 20	56 38 29	81 56 42	115 86 55	145 110 88	205 155 125	320 245 185	435 325 250	610 465 340	750 560 465	1080* 810 660	1680* 1260 950	2100* 1700 1400	2400* 2200 1800
9	1500 1000 750	167 111 83	8 5.5 4	12 8 6	18 12 9.5	25 16 13	36 24 19	51 34 38	74 49 51	100 76 51	135 100 79	190 145 120	290 220 175	395 295 230	540 415 315	680 510 420	980 740 600	1540* 1110 830	2050* 1560 1190	2200* 1950 1500
10	1500 1000 750	150 100 75	7.5 5 4	10 7 5.5	16 11 8.5	22 15 11	32 22 17	46 30 34	67 44 46	92 69 73	130 94 105	165 125 155	255 195 210	345 260 295	480 360 380	610 465 510	910 620 710	1370 950 710	1900* 1270 950	2200* 1700 1300
11.2	1500 1000 750	134 89 67	6.5 4.5 3.5	9.5 6.5 4.8	14 9.5 7.5	20 13 10	29 20 15	41 27 21	59 40 31	81 61 41	115 84 65	150 130 140	235 175 185	325 245 240	450 340 350	560 430 470	840 630 470	1200 810 610	1550 1030 780	2000* 1380 1040
12.5	1500 1000 750	120 80 60	5.5 3.9 3	8.5 5.5 4.2	13 8.5 6.5	18 12 9	26 25 19	36 36 27	53 56 36	75 74 56	105 74 56	140 105 76	210 145 110	285 215 150	390 265 190	500 380 270	760 480 365	980 660 500	1260 850 640	1550* 1110 840
14	1500 1000 750	107 71 53	5 3.5 2.6	7.5 5 3.7	10 6.5 4.9	14 9 7	23 15 11	32 21 15	48 31 23	66 42 31	81 54 38	125 84 60	190 110 80	260 165 115	345 205 145	465 310 235	580 415 310	780 520 400	1000 680 510	1150 900 690
16	1500 1000 750	94 62 47	4.3 2.8 2.1	6 5 2.8	7.5 5 3.7	11 7.5 5.5	18 11 11	24 24 17	37 32 23	51 32 27	60 37 27	105 63 46	135 81 59	205 125 88	260 150 110	410 350 260	480 350 260	600 410 305	840 560 425	1000 720 600
18	1500 1000 750	83 56 41	3.3 2.2 1.6	4.5 2.9 2.2	6 3.9 2.9	8.5 5.5 4.2	13 8.5 6.5													
Nominal transmission ratio i_N	input speeds [rpm]; n_1	Size of gear unit																		
		80	90	100	110	125	140	160	180	200	225	250	280	315	355	400	450	500	560	
Thermal capacity, P_{G1} (kW), for gear boxes without cooling																				
6.3 to 11.2	1500 1000 750	11 10 9	16 15 13	21 20 18	26 24 21	31 29 26	38 36 35	50 48 46	65 62 58	90 86 80	125 110 105	140 135 130	170 165 155	220 210 205	275 270 260	355 340 330	430 420 415	550 545 535	675 665 660	
12.5 to 18	1500 1000 750	10 9 8	15 13 12	18 16 15	24 22 19	28 25 23	36 34 32	48 45 41	62 54 50	86 78 73	110 105 100	135 125 120	165 160 150	215 205 200	265 260 255	340 335 330	465 415 410	545 535 530	665 655 650	
Thermal capacity, P_{G2} (kW), for gear boxes with fan cooling																				
6.3 to 11.2	1500 1000 750	28 26 22	35 33 30	45 42 37	56 52 48	70 63 55	90 82 75	110 100 95	150 140 125	195 175 150	250 230 205	330 305 260	380 350 300	510 450 400	620 550 500	800 700 620	990 830 780	1200 1100 950	1500 1400 1300	
12.5 to 18	1500 1000 750	25 21 16	33 29 24	42 36 30	54 46 40	68 58 50	86 72 64	105 92 82	140 120 105	180 150 135	230 200 180	310 260 230	370 320 280	480 430 380	600 520 480	750 660 600	950 810 740	1150 1000 930	1450 1300 1200	
Thermal capacity, P_{G3} (kW), for gear boxes with cooling coil																				
6.3 to 18	1500 1000 750	20 18 15	26 24 22	32 30 29	42 40 37	56 54 51	70 65 61	90 83 81	110 106 104	135 131 130	170 160 155	210 200 194	260 255 250	330 310 300	425 420 410	575 570 565	760 740 715	975 965 935	1175 1165 1110	
Thermal capacity, P_{G4} (kW), for gear boxes with fan and cooling coil																				
6.3 to 18	1500 1000 750	37 34 28	45 42 39	56 52 48	72 68 64	95 88 80	122 111 101	150 135 130	195 188 171	240 220 200	305 280 255	400 370 324	470 440 395	620 550 495	770 700 650	1020 930 855	1200 1150 1080	1500 1400 1350	2000 1900 1750	

For power ratings indicated in **heavy type** a check of the thermal capacity is always necessary (see the example of a calculation).

At normal type print this is necessary only at an ambient temperature deviating from 20°C. The nominal gear powers, P_N [kW] marked with * require forced feed lubrication by a pump. The nominal transmission ratio is maintained with a tolerance of about – 3% Intermediate transmission ratios are possible.

OMEX-D/R SERIES modular gear units
Bevel Helical gear, triple reduction

RCN*



Example of a gear unit designation :

Gear unit RCN 200 R
 $P_N = 36 \text{ [kW]}$; $n_1 = 1500 \text{ rpm}$;
 $n_2 = 38 \text{ [rpm]}$; $i_N = 40 : 1$

Normal design, size 200

R: 'right - hand' design for transmission of 36 [kW] at an input speed of $n_1 = 1500 \text{ [rpm]}$ and a transmission ratio of $i_N = 40 : 1$

Size of gear unit	Input Shaft upto size = 450 $i_N \leq 45$ $i_N > 45$ size 500 and above $i_N \leq 50$ $i_N > 50$		Output shaft		Dimensions [mm]																Fan cooling	Average weight [kg]	Oil quantity [litres]			
	d	I	d	I	D	L	A	B	C	E	F	G	H	H	K	M	N	O	P	R	S	T	V	W		
110	16	40	16	40	48	110	360	385	140	180	150	50	125	310	110	20	14	80	140	25	345	460	230	70	3.5	
125	20	50	20	50	55	110	405	435	155	200	170	55	140	340	120	20	14	95	170	25	395	505	230	95	4.5	
140	20	50	20	50	60	140	455	490	175	220	190	60	160	380	135	20	14	110	195	30	450	555	300	130	6.5	
160	25	60	20	50	70	140	510	555	190	250	210	65	180	430	145	30	18	115	210	35	495	610	300	175	9	
180	30	80	25	60	80	170	575	625	215	270	230	70	200	475	160	30	18	135	240	35	565	680	380	235	13	
200	35	80	30	80	90	170	640	685	240	300	250	75	225	520	175	35	23	145	255	40	615	745	380	320	18	
225	40	110	35	80	100	210	725	775	260	320	270	80	250	570	190	35	23	165	290	45	705	830	380	430	26	
250	42	110	40	110	110	210	815	860	285	370	310	90	280	625	210	40	27	180	315	50	780	935	530	580	33	
280	50	110	45	110	120	210	905	970	325	400	340	100	315	690	230	45	27	200	355	55	880	1025	530	780	46	
315	55	110	50	110	140	250	1020	1085	355	450	380	110	355	785	655	260	50	33	220	405	60	985	1150	650	1060	65
355	60	140	55	110	160	300	1140	1220	390	480	410	120	400	865	740	285	55	33	245	450	65	1110	1265	650	1430	90
400	65	140	60	140	170	300	1275	1355	440	530	460	130	450	960	840	305	55	33	280	510	70	1245	1415	650	1930	125
450	75	140	70	140	190	350	1425	1520	490	600	510	140	500	1065	940	345	60	39	315	575	80	1400	1565	650	2590	180
500	90	170	80	170	220	350	1585	1690	550	650	560	150	560	1185	1050	475	70	39	350	645	90	1550	1720	650	4280	240
560	100	210	90	170	250	410	1775	1895	610	750	640	160	630	1325	1165	510	80	45	390	715	100	1735	1910	650	5580	335
630	110	210	95	170	300	470	1995	2145	675	800	690	170	710	1460	1305	560	80	45	445	800	110	1985	2130	650	7950	480
710	120	210	110	210	340	550	2235	2400	760	900	770	190	800	1665	1490	600	90	45	500	900	125	2220	2365	650	10650	690
800	130	250	120	210	400	650	2505	2700	840	1000	870	200	900	1870	1680	645	90	45	560	1100	140	2520	2635	650	14700	940

Larger gear box sizes of this design on enquiry.

Modification of dimensions reserved.

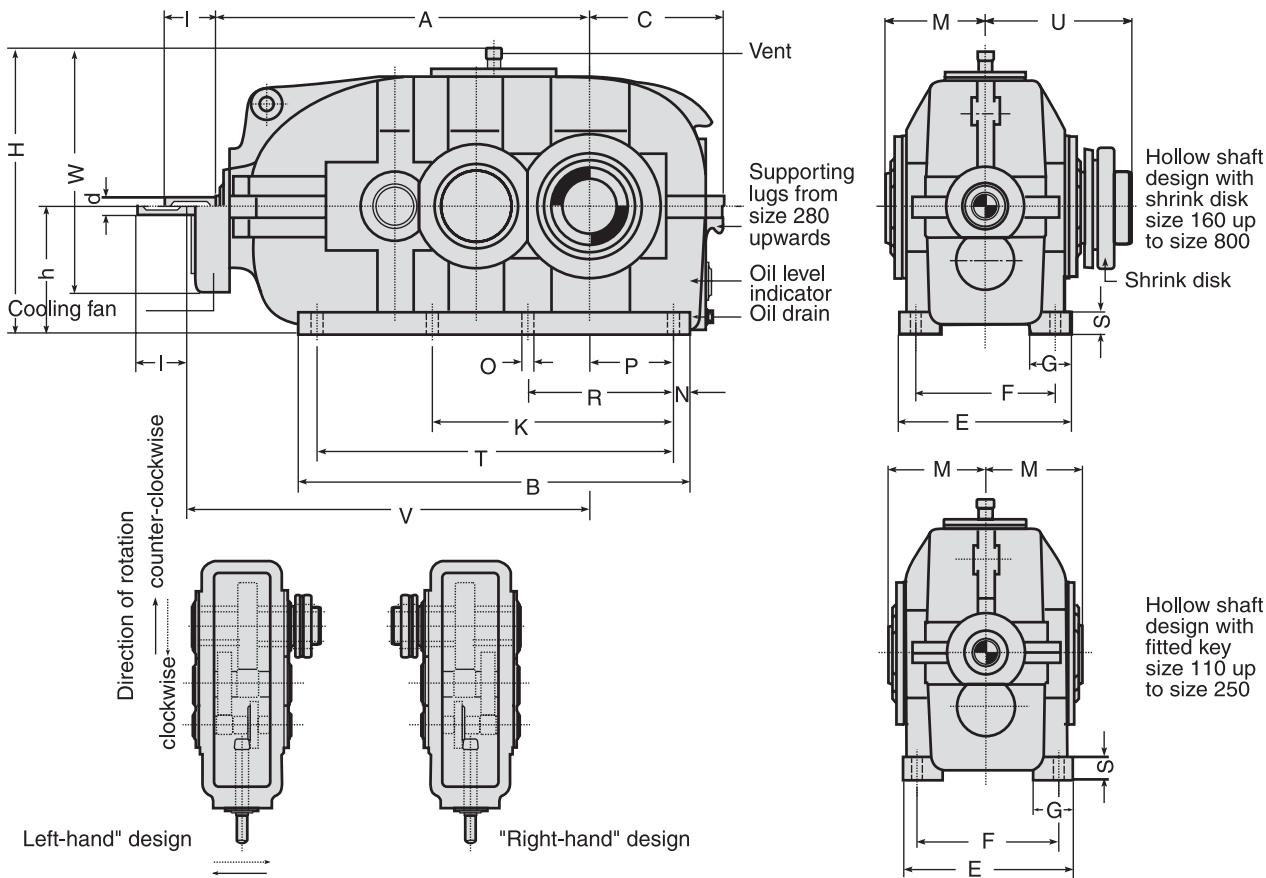
Shaft ends with keys according to DIN 6885, part 1, Shape A.

Shaft centering according to DIN 332, shape DS (with th read)

Tolerance field for shaft ends ISO fit, up to 50 mm $\pm k 6$; over 50 mm $\pm m 6$.

OMEX-D/R SERIES modular gear units, hollow shaft, footmounted - Bevel Helical gear, triple reduction

RCH*



Example of a gear unit designation :

Gear unit RCH 200 R

$P_N = 36 \text{ [kW]}$; $n_1 = 1500 \text{ rpm}$;
 $n_2 = 38 \text{ [rpm]}$; $i_N = 40 : 1$

Normal design, size 200

R: 'right - hand' design for transmission of 36 [kW] at an input speed of $n_1 = 1500 \text{ [rpm]}$ and a transmission ratio of $i_N = 40 : 1$

Size of gear unit	Dimensions [mm]																		F _{ax} [N/mm]	B _{ax} [kg]	Average weight [kg]	Oil quantity [litres]				
	d	I	d	I	A	B	C	E	F	G	h	H	K	M	N	O	P	R	S	T	U	V	W			
110	16	40	16	40	360	385	140	180	150	50	125	310		110	20	14	80	140	25	345		460	230	70	3.5	
125	20	50	20	50	405	435	155	200	170	55	140	340		120	20	14	95	170	25	395		505	230	95	4.5	
140	20	50	20	50	455	490	175	220	190	60	160	380		135	20	14	110	195	30	450		555	300	130	6.5	
160	25	60	20	50	510	555	190	250	210	65	180	430		145	30	18	115	210	35	495	225	610	300	175	9	
180	30	80	25	60	575	625	215	270	230	70	200	475		160	30	18	135	240	35	565	250	680	380	235	13	
200	35	80	30	80	640	685	240	300	250	75	225	520		175	35	23	145	255	40	615	275	745	380	320	18	
225	40	110	35	80	725	775	260	320	270	80	250	570		190	35	23	165	290	45	705	295	830	380	430	26	
250	42	110	40	110	815	860	285	370	310	90	280	625		210	40	27	180	315	50	780	325	935	530	580	33	
280	50	110	45	110	905	970	325	400	340	100	315	690		230	45	27	200	355	55	880	360	1025	530	780	46	
315	55	110	50	110	1020	1085	355	450	380	110	355	785		655	260	50	33	220	405	60	985	420	1150	650	1060	65
355	60	140	55	110	1140	1220	390	480	410	120	400	865		740	285	55	33	245	450	65	1110	450	1265	650	1430	90
400	65	140	60	140	1275	1355	440	530	460	130	450	960		840	305	55	33	280	510	70	1245	490	1415	650	1930	125
450	75	140	70	140	1425	1520	490	600	510	140	500	1065		940	345	60	39	315	575	80	1400	550	1565	650	2590	180
500	90	170	80	170	1585	1690	550	650	560	150	560	1185		1050	475	70	39	350	654	90	1550	715	1720	650	4280	240
560	100	210	90	170	1775	1895	610	750	640	160	630	1325		1165	510	80	45	390	715	100	1735	760	1910	650	5580	335
630	110	210	95	170	1995	2145	675	800	690	170	710	1460		1305	560	80	45	445	800	110	1985	840	2130	650	7950	480
710	120	210	110	210	2235	2400	760	900	770	190	800	1665		1490	600	90	45	500	900	125	2220	890	2365	650	10650	690
800	130	250	120	210	2505	2700	840	1000	870	200	900	1870		1680	645	90	45	560	1100	140	2520	955	2635	650	14700	940

Larger gear box sizes of this design on enquiry.

Modification of dimensions reserved.

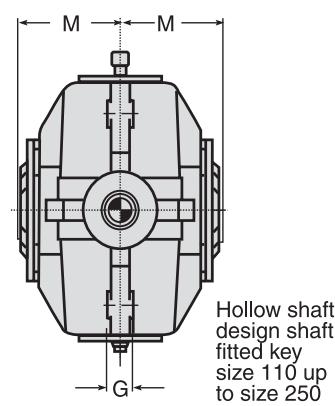
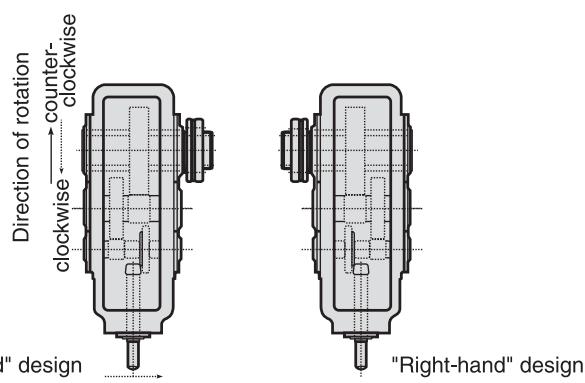
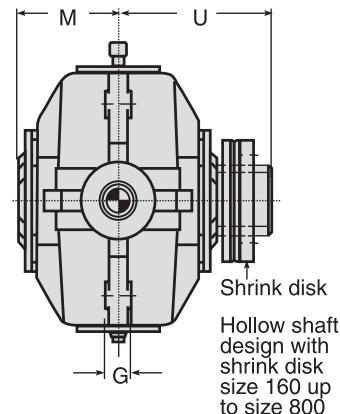
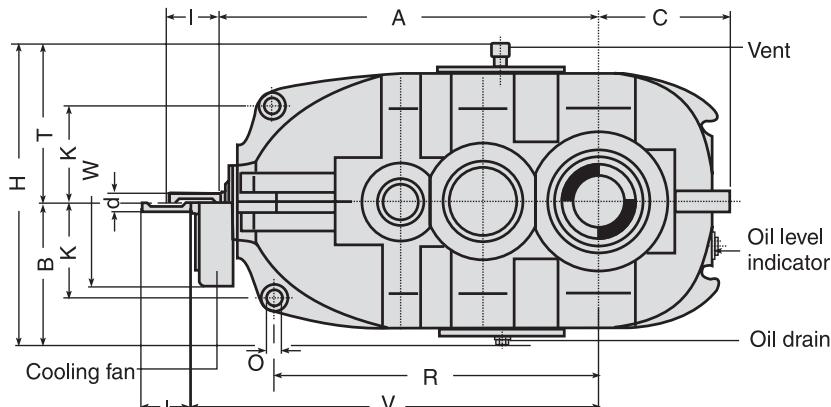
Shaft ends with keys according to DIN 6885, part 1, Shape A.
Shaft centering according to DIN 332, shape DS (with thread)

Tolerance field for shaft ends ISO fit, up to 50 mm $\pm k 6$; over 50 mm $\pm m 6$.

* Under development

OMEX-D/R SERIES modular gear units,
shaftmounted Bevel Helical gear, double reduction

RCA*



Example of a gear unit designation :

Gear unit RCA 200 R

$P_N = 36 \text{ [kW]}$; $n_1 = 1500 \text{ rpm}$;
 $n_2 = 38 \text{ [rpm]}$; $i_N = 40 : 1$

Normal design, size 200

R: 'right - hand' design for transmission of 36 [kW] at an input speed of $n_1 = 1500 \text{ [rpm]}$ and a transmission ratio of $i_N = 40 : 1$

Size of gear unit	Input Shaft up to size = 450 $i_N \leq 45$ $i_N > 45$ size 500 and above $i_N \leq 50$ $i_N > 50$		Dimensions [mm]												Fan cooling	Average weight [kg]	Oil quantity [litres]		
	d	I	d	I	A	B	C	G	H	K	M	O^{H11}	R	T	U	V	W		
110	16	40	16	40	360	160	140	25	345	95	110	18	315	185		460	230	65	2
125	20	50	20	50	405	175	155	28	375	105	120	18	355	200		505	230	85	3
140	20	50	20	50	455	195	175	30	415	120	135	20	395	220		555	300	115	4
160	25	60	20	50	510	215	190	32	465	135	145	20	435	250	225	610	300	150	6
180	30	80	25	60	575	240	215	35	515	155	160	25	495	275	250	680	380	205	8
200	35	80	30	80	640	260	240	45	555	170	175	30	555	295	275	745	380	280	12
225	40	110	35	80	725	290	260	50	610	185	190	35	635	320	295	830	380	370	17
250	42	110	40	110	815	315	285	55	660	205	210	40	710	345	325	935	530	500	21
280	50	110	45	110	905	345	325	60	720	225	230	45	800	375	360	1025	530	670	28
315	55	110	50	110	1020	380	355	70	810	260	260	50	895	430	420	1150	650	910	40
355	60	140	55	110	1140	415	390	80	880	285	285	55	995	465	450	1265	650	1170	55
400	65	140	60	140	1275	460	440	90	970	310	305	60	1110	510	490	1415	650	1580	80
450	75	140	70	140	1425	515	490	105	1080	360	345	65	1245	565	550	1565	650	2070	115
500	90	170	80	170	1585	575	550	105	1200	410	475	70	1400	625	715	1720	650	3420	150
560	100	210	90	170	1775	645	610	110	1340	450	510	75	1580	695	760	1910	650	4500	215
630	110	210	95	170	1995	725	675	115	1500	465	560	80	1795	775	840	2130	650	6400	300
710	120	210	110	210	2235	830	760	120	1695	535	600	85	2020	865	890	2365	650	8585	420
800	130	250	120	210	2505	940	840	125	1910	605	645	90	2280	975	955	2635	650	11550	580

Larger gear box sizes of this design on enquiry.

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 50 mm $\pm k 6$; over 50 mm $\pm m 6$.

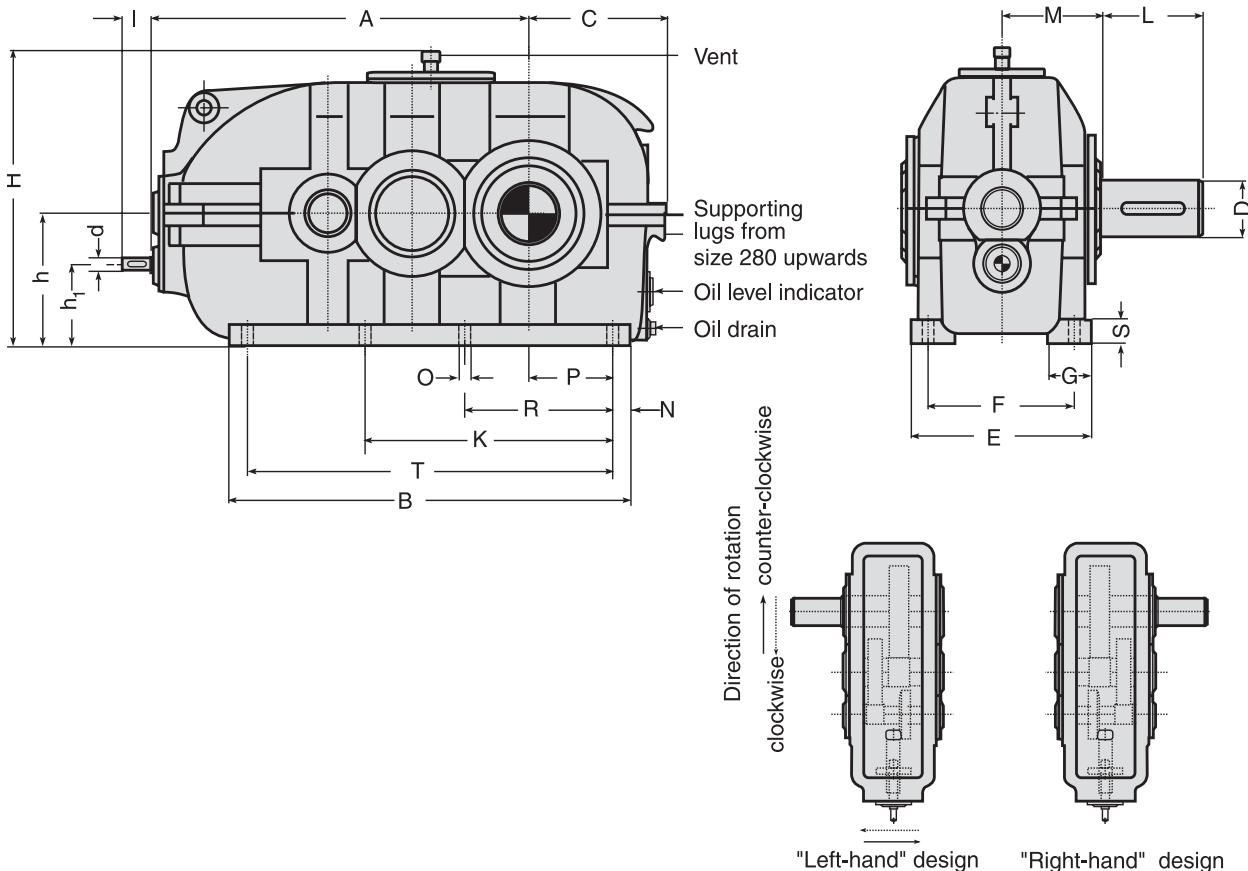
Power ratings

RCN/RCH/RCA

Nominal transmission ratio i_N	Nominal speeds [rpm]; n_1 , n_2	Size of gear unit																	
		110	125	140	160	180	200	225	250	280	315	355	400	450	500	560	630	710	800
		Nominal gear box rating P_N (kW)																	
14	1500	107	16	22	32	45	63	85	120	170	240	320	440	620*	830*	1350*	1850*	2500*	
	1000	71	11	15	23	30	46	60	85	120	175	235	330	450	630	1010	1420*	2200*	2500*
	750	54	8.5	12	17	24	35	45	70	90	145	190	270	360	510	830	1180	1750	2300*
16	1500	94	15	22	30	45	61	80	120	160	230	305	440	600*	830*	1350*	1850*	2500*	
	1000	63	10	14	21	30	43	60	85	115	170	230	330	440	630	1010	1420*	2200*	2500*
	750	47	8	12	17	24	35	45	70	85	140	185	270	360	510	830	1180	1600	2300*
18	1500	83	13	20	28	42	58	75	110	150	210	290	440	560	780*	1350*	1850*	2500*	2700*
	1000	56	9	13	19	30	40	53	75	105	155	215	330	420	590	1000	1400*	1860*	2500*
	750	42	7	10	15	23	32	42	65	80	120	175	260	345	480	790	1120	1460	2180
20	1500	75	12	17	25	39	53	68	100	135	195	270	430	550	780*	1320*	1800*	2460*	2650*
	1000	50	8	12	17	27	36	48	70	95	140	200	315	380	550	880	1240*	1640*	2400*
	750	38	6	9	13	20	28	38	55	75	110	160	245	310	445	700	1000	1290	1920*
22.4	1500	67	10	15	22	34	50	65	94	130	175	250	400	510	730*	1170*	1540*	2170*	2500*
	1000	45	7	11	15	23	34	48	65	90	130	185	290	360	520	780	1100	1450*	2120*
	750	33	5.5	8	11	17	25	36	49	70	95	140	220	275	400	620	880	1140	1710
25	1500	60	9	14	20	30	44	62	83	115	160	225	350	450	650	1030*	1460*	1930*	2500*
	1000	40	6.5	9.5	14	20	30	42	57	80	110	165	255	315	460	730	1040	1350*	2010*
	750	30	4.7	7	10	15	23	32	43	60	85	125	195	240	350	550	780	1010	1510
28	1500	54	8	11	18	22	37	48	75	92	140	215	320	405	590	910*	1290*	1710*	2400*
	1000	36	5.5	8	12	15	25	34	52	66	94	150	225	285	420	640	910	1190	1770*
	750	27	4.1	6	9	12	19	26	39	50	71	115	170	215	315	490	690	890	1330
31.5	1500	48	7	10	16	20	33	44	69	85	120	195	290	385	550	820*	1170*	1540*	2260*
	1000	32	4.8	7	11	14	22	31	46	59	83	130	200	255	370	580	820	1070*	1600*
	750	24	3.6	5.5	8	10	17	23	34	44	62	100	150	190	280	440	620	800	1200
35.5	1500	42	6.5	9.5	15	18	30	40	62	77	110	180	260	345	500	770*	1100*	1430*	2120*
	1000	28	4.3	6.5	10	12	20	28	42	53	75	120	180	230	340	510	720	950	1410*
	750	21	3.2	4.8	7.5	9	15	21	31	40	56	90	135	175	250	385	540	710	1060
40	1500	38	6	8.5	13	17	27	36	56	69	98	160	235	310	450	690	990*	1290*	1920*
	1000	25	3.9	5.5	9.5	11	18	25	41	47	67	120	160	225	330	465	660	860	1280
	750	19	2.9	4.4	6.5	8.5	14	19	29	36	52	82	125	155	230	350	495	640	960
45	1500	33.5	5	7.5	12	15	24	33	50	64	90	145	215	275	400	620	880	1150*	1720*
	1000	22	3.5	5	8	10	16	22	33	42	60	95	145	180	265	455	640	840	1250
	750	16.6	2.7	4	6	7.5	12	17	26	32	46	74	110	140	205	320	455	600	870
50	1500	30	4.6	7	11	13	21	30	44	57	80	130	195	245	360	550	780	1030	1540*
	1000	20	3.1	4.6	7	9	14	20	31	38	54	87	130	165	240	365	520	680	1020
	750	15	2.4	3.5	5.5	7	11	15	23	29	41	65	99	120	180	290	410	540	780
56	1500	27	4.1	6	9.5	12	19	26	39	50	71	115	170	220	320	500	700	920	1370*
	1000	18	2.8	4.2	6.5	8	13	18	27	34	49	78	115	145	215	340	485	640	930
	750	13.4	2.1	3.1	4.6	6	10	14	21	26	37	59	88	110	165	255	360	475	690
63	1500	24	3.7	5.5	8.5	10	17	23	35	44	63	100	150	195	285	440	620	810	1220
	1000	16	2.5	3.7	5.5	7	12	16	24	30	43	69	105	130	190	300	430	560	820
	750	12	1.9	2.8	4.2	5.5	8.5	12	18	23	32	52	78	98	145	230	325	430	620
71	1500	21	3.2	4.8	7.5	9	15	21	31	40	56	90	135	175	250	395	560	730	1000
	1000	14	2.2	3.3	5	6.5	10	14	22	27	37	62	81	115	160	265	380	500	680
	750	10.5	1.7	2.5	3.7	4.8	7.5	11	16	20	27	46	59	86	110	200	285	380	510
80	1500	18.8	2.9	4.4	6	9	12	19	29	40	55	74	115	160	210	350	480	600	850
	1000	12.5	2	3	4.2	6	8	14	20	27	37	50	79	110	145	240	340	410	560
	750	9.4	1.5	2.2	3.1	4.5	8	10	15	20	27	38	59	81	110	180	255	305	425
90	1500	16.7	2.3	3.9	5.5	8	10	18	26	36	46	67	110	145	190	310	385	520	800
	1000	11.1	1.5	2.5	3.7	5.5	7	12	17	24	29	41	67	95	115	180	260	355	540
	750	8.3	1.1	1.9	2.8	4	5.5	9	13	18	21	30	48	68	85	130	195	270	410
100	1500	15	2.8	5	7	9.5	16	21	30	34	50	82	120	140	230	320	430	650	850
	1000	10		1.8	3.3	4.6	6.5	10	13	19	22	31	50	64	85	135	205	295	435
	750	7.5		1.3	2.4	3.4	4.9	7.5	9.5	14	16	23	37	46	62	97	145	225	330
Nominal transmission ratio i_N	input speeds [rpm]; n_1	Size of gear unit																	
110	125	140	160	180	200	225	250	280	315	355	400	450	500	560	630	710	800		
Thermal capacity, PG_1 (kW), for gear boxes without cooling																			
14	1500	21	26	32	42	51	65	85	102	133	168	202	250	305	386	485	605	760	960
to	1000	19	23	29	38	49	60	78	100	120	158	192	240	292	375	480	595	740	940
35.5	750	17	20	26	34	45	55	72	95	118	152	183	232	282	370	465	585	720	920
40	1500	18	24	30	38	48	60	75	96	123	157	191	242	300	380	475	595	750	950
to	1000	17	21	27	36	46	5												

OMEX-D/R SERIES modular gear units,
Bevel Helical gear, quadruple reduction

RDN*



Example of a gear unit designation :

Gear unit RDN 280 R

$P_N = 22 \text{ [kW]}$; $n_1 = 1500 \text{ [rpm]}$;
 $n_2 = 7.5 \text{ [rpm]}$; $i_N = 200 : 1$

Normal design, size 280

R: 'right - hand' design for transmission of 22 [kW]
at an input speed of $n_1 = 1500 \text{ [rpm]}$ and a transmission ratio of $i_N = 200 : 1$

Size of gear unit	Input Shaft		Output shaft	Dimensions [mm]																		Average weight [kg]	Oil quantity [litres]			
	$i_N \leq 355$	$i_N > 355$		d	I	d	I	D	L	A	B	C	E	F	G	h	h_1	H	K	M	N	O	P	R	S	T
160	19	40	19	40	70	140	510	555	190	250	210	65	180	100	430			145	30	18	115	210	35	495	175	9
180	19	40	19	40	80	170	575	625	215	270	230	70	200	120	475			160	30	18	135	240	35	565	235	13
200	19	40	19	40	90	170	640	685	240	300	250	75	225	145	520			175	35	23	145	255	40	615	320	18
225	22	50	22	50	100	210	725	775	260	320	270	80	250	160	570			190	35	23	165	290	45	705	430	26
250	25	60	22	50	110	210	815	860	285	370	310	90	280	180	625			210	40	27	180	315	50	780	580	33
280	30	80	25	60	120	210	905	970	325	400	340	100	315	205	690			230	45	27	200	355	55	880	780	46
315	35	80	30	80	140	250	1020	1085	355	450	380	110	355	230	785	655		260	50	33	220	405	60	985	1060	65
355	45	110	35	80	160	300	1140	1220	390	480	410	120	400	260	865	740	285	55	33	245	450	65	1110	1430	90	
400	50	110	40	110	170	300	1275	1355	440	530	460	130	450	290	960	840	305	55	33	280	510	70	1245	1930	125	
450	55	110	45	110	190	350	1425	1520	490	600	510	140	500	320	1065	940	345	60	39	315	575	80	1400	2590	180	
500	60	140	50	110	220	350	1585	1690	550	650	560	150	560	360	1185	1050	475	70	39	350	645	90	1550	4280	240	
560	70	140	55	110	250	410	1775	1895	610	750	640	160	630	405	1325	1165	510	80	45	390	715	100	1735	5850	335	
630	75	140	60	140	300	470	1995	2145	675	800	690	170	710	460	1460	1305	560	80	45	445	800	110	1985	7950	480	
710	85	170	70	140	340	550	2235	2400	760	900	770	190	800	520	1665	1490	600	90	45	500	900	125	2220	10650	690	
800	100	210	90	170	400	650	2505	2700	840	1000	870	200	900	585	1870	1680	645	90	45	560	1100	140	2520	14700	940	

Larger gear box sizes of this design on enquiry.

Modification of dimensions reserved.

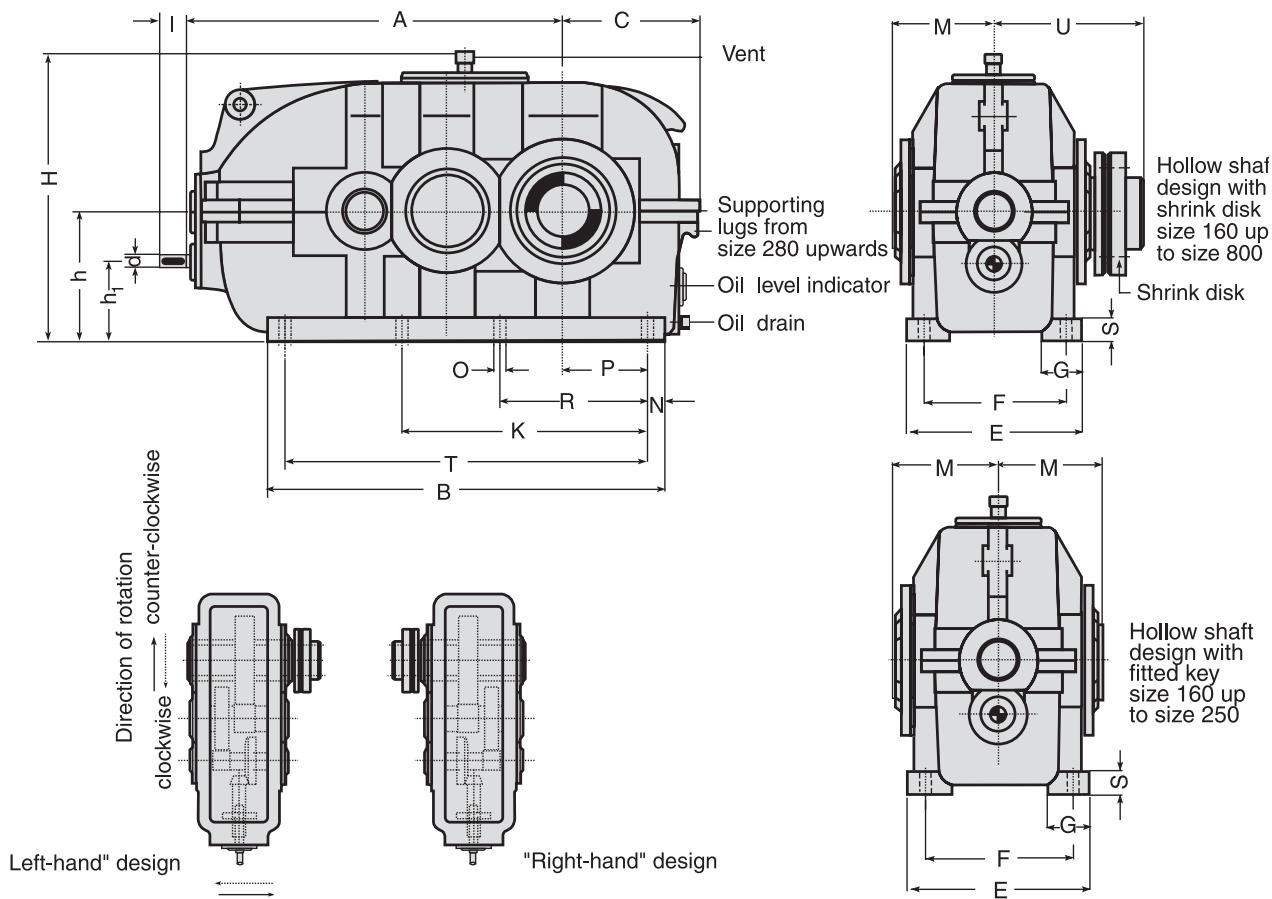
Shaft ends with keys according to DIN 6885, part 1, Shape A.

Shaft centering according to DIN 332, shape DS (with thread)

Tolerance field for shaft ends ISO fit, up to 50 mm $\pm k 6$; over 50 mm $\pm m 6$.

OMEX-D/R SERIES modular gear units, hollow shaft, footmounted - Bevel Helical gear, quadruple reduction

RDH*



Example of a gear unit designation :

Gear unit RDH 280 R

$P_N = 22 \text{ [kW]}$; $n_1 = 1500 \text{ [rpm]}$;
 $n_2 = 7.5 \text{ [rpm]}$; $i_N = 200 : 1$

Normal design, size 280

R: 'right - hand' design for transmission of 22 [kW] at an input speed of $n_1 = 1500 \text{ [rpm]}$ and a transmission ratio of $i_N = 200 : 1$

Size of gear unit	Input Shaft		Dimensions [mm]																		Average weight [kg]	Oil quantity [litres]		
	$i_N \leq 500$	$i_N > 500$	d	I	d	I	A	B	C	E	F	G	h	h ₁	H	K	M	N	O	P	R	S	T	U
160	19	40			510	555	190	250	210	65	180	100	430		145	30	18	115	210	35	495	225	175	9
180	19	40			575	625	215	270	230	70	200	120	475		160	30	18	135	240	35	565	250	235	13
200	19	40			640	685	240	300	250	75	225	145	520		175	35	23	145	255	40	615	275	320	18
225	22	50			725	775	260	320	270	80	250	160	570		190	35	23	165	290	45	705	295	430	26
250	25	60	22	50	815	860	285	370	310	90	280	180	625		210	40	27	180	315	50	780	325	580	33
280	30	80	25	60	905	970	325	400	340	100	315	205	690		230	45	27	200	355	55	880	360	780	46
315	35	80	30	80	1020	1085	355	450	380	110	355	230	785	655	260	50	33	220	405	60	985	420	1060	65
355	45	110	35	80	1140	1220	390	480	410	120	400	260	865	740	285	55	33	245	450	65	1110	450	1430	90
400	50	110	40	110	1275	1355	440	530	460	130	450	290	960	840	305	55	33	280	510	70	1245	490	1930	125
450	55	110	45	110	1425	1520	490	600	510	140	500	320	1065	940	345	60	39	315	575	80	1400	550	2590	180
500	60	140	50	110	1585	1690	550	650	560	150	560	360	1185	1050	475	70	39	350	645	90	1550	715	4280	240
560	70	140	55	110	1775	1895	610	750	640	160	630	405	1325	1165	510	80	45	390	715	100	1735	760	5850	335
630	75	140	60	140	1995	2145	675	800	690	170	710	460	1460	1305	560	80	45	445	800	110	1985	840	7950	480
710	85	170	70	140	2235	2400	760	900	770	190	800	520	1665	1490	600	90	45	500	900	125	2220	890	10650	690
800	100	210	90	170	2505	2700	840	1000	870	200	900	585	1870	1680	645	90	45	560	1100	140	2520	955	14700	940

Larger gear box sizes of this design on enquiry.

Modification of dimensions reserved.

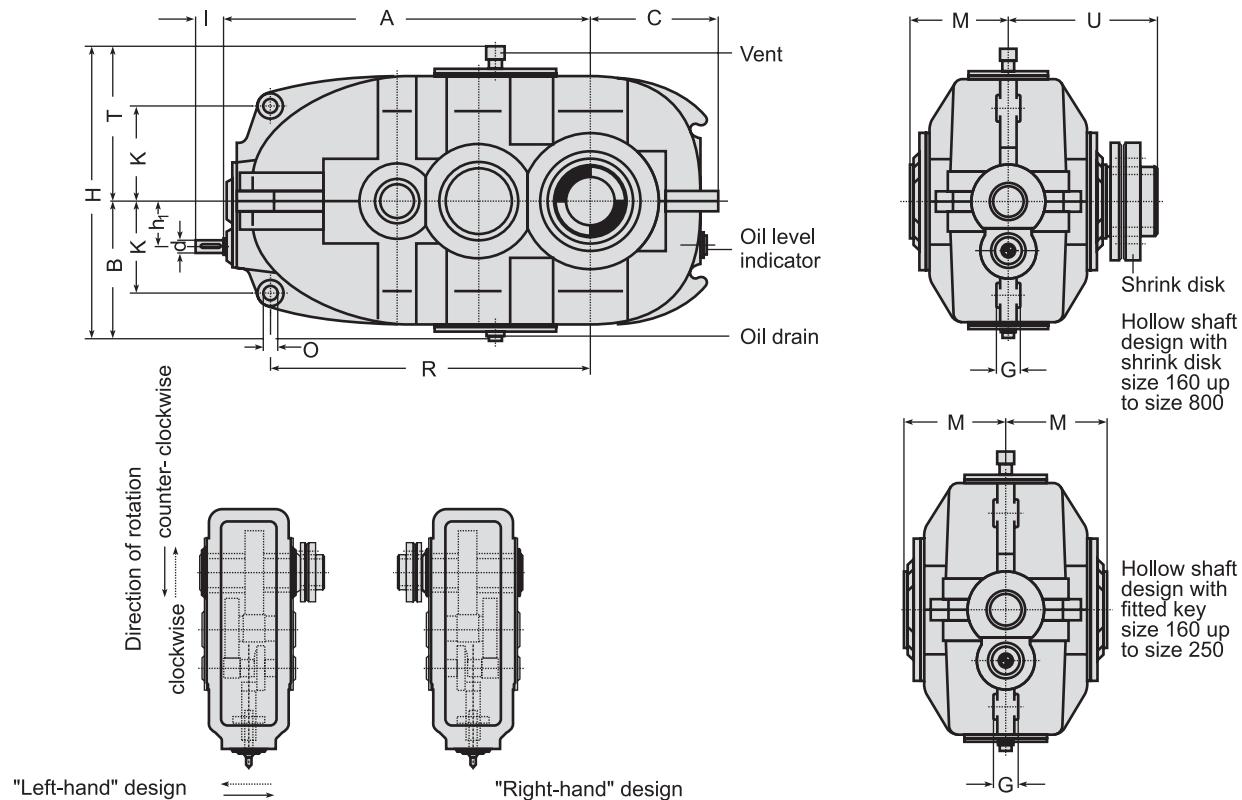
Shaft ends with keys according to DIN 6885, part 1, Shape A.
Shaft centering according to DIN 332, shape DS (with thread)

Tolerance field for shaft ends ISO fit, up to 50 mm $\pm k 6$; over 50 mm $\pm m 6$.

* Under development

OMEX-D/R SERIES modular gear units, shaftmounted
Bevel Helical gear, quadruple reduction

RDA*



Example of a gear unit designation :

Gear unit RDA 280 R

$P_N = 22 \text{ [kW]}$; $n_1 = 1500 \text{ [rpm]}$;
 $n_2 = 7.5 \text{ [rpm]}$; $i_N = 200 : 1$

Normal design, size 280

R: 'right - hand' design for transmission of 22 [kW] at an input speed of $n_1 = 1500 \text{ [rpm]}$ and a transmission ratio of $i_N = 200 : 1$

Size of gear unit	Input Shaft				Dimensions [mm]													Average weight [kg]	Oil quantity [litres]
	$i_N \leq 500$	$i_N > 500$	d	I	A	B	C	G	h_1	H	K	M	O^{H11}	R	T	U			
160	19	40			510	215	190	32	80	465	135	145	20	435	250	225	150	6	
180	19	40			575	240	215	35	80	515	155	160	25	495	275	250	205	8	
200	19	40			640	260	240	45	80	555	170	175	30	555	295	275	280	12	
225	22	50			725	290	260	50	90	610	185	190	35	635	320	295	370	17	
250	25	60	22	50	815	315	285	55	100	660	205	210	40	710	345	325	500	21	
280	30	80	25	60	905	345	325	60	110	720	225	230	45	800	375	360	670	28	
315	35	80	30	80	1020	380	355	70	125	810	260	260	50	895	430	420	910	40	
355	45	110	35	80	1140	415	390	80	140	880	285	285	55	995	465	450	1170	55	
400	50	110	40	110	1275	460	440	90	160	970	310	305	60	1110	510	490	1580	80	
450	55	110	45	110	1425	515	490	105	180	1080	360	345	65	1245	565	550	2070	115	
500	60	140	50	110	1585	575	550	105	200	1200	410	475	70	1400	625	715	3350	150	
560	70	140	55	110	1775	645	610	110	225	1340	450	510	75	1580	695	760	4800	215	
630	75	140	60	140	1995	725	675	115	250	1500	465	560	80	1795	775	840	6400	300	
710	85	170	70	140	2235	830	760	120	280	1695	535	600	85	2020	865	890	8750	420	
800	100	210	90	170	2505	940	840	125	315	1910	605	645	90	2280	970	966	11200	580	

Larger gear box sizes of this design on enquiry.

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)

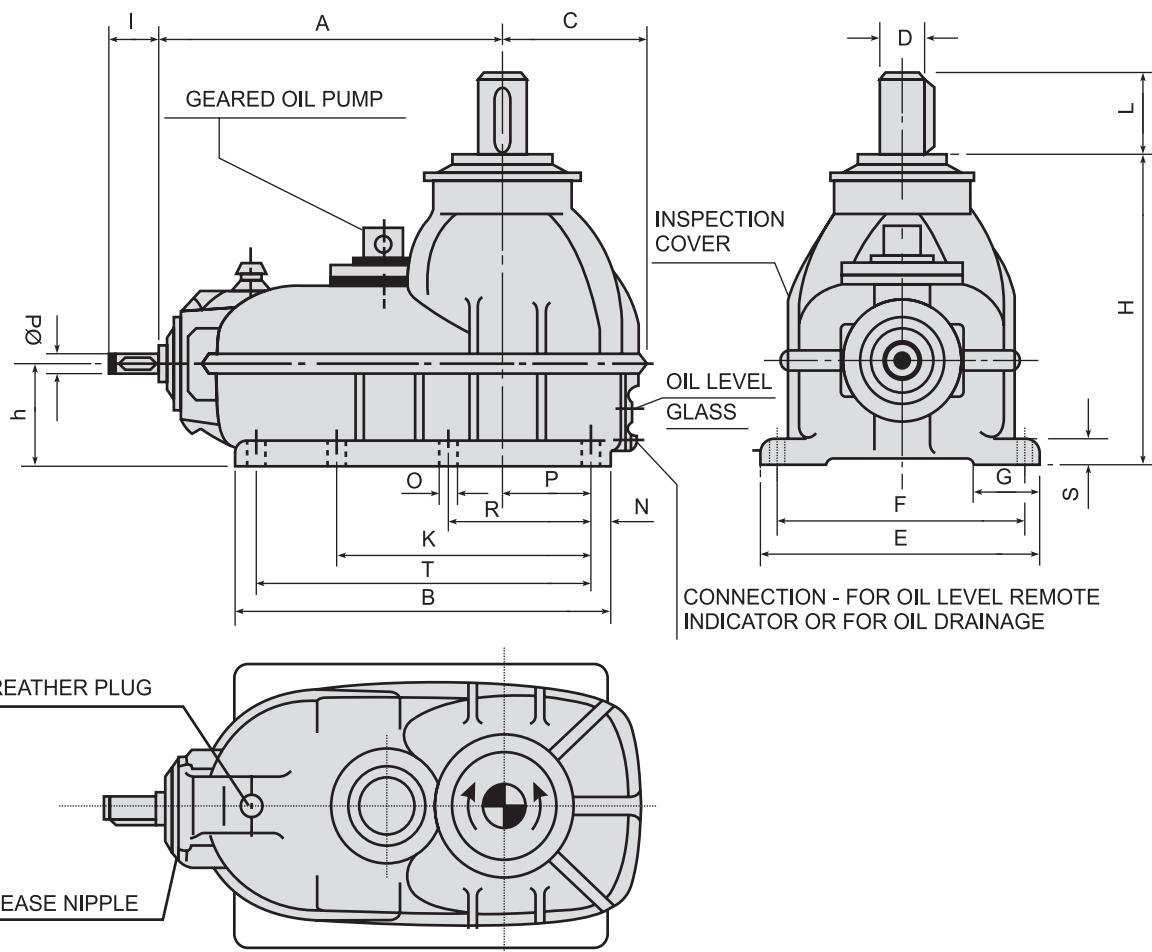
Tolerance field for shaft ends ISO fit, up to 50 mm $\pm k 6$; over 50 mm $\pm m 6$.

Power ratings
RDN/RDH/RDA

Nominal transmission ratio i_N	Nominal speeds rpm n_1 n_2	Size of gear unit															
		160	180	200	225	250	280	315	355	400	450	500	560	630	710	800	
100	1500 1000 750	15 10 7.5						41 27 21	65 44 33	98 65 50	135 84 64	180 120 90	290 190 145	400 270 205	540 360 270	780 520 395	1130 750 560
112	1500 1000 750	13.4 8.9 6.7	6 4.1 3	9.5 7 5	13 9.5 7	21 14 10	27 18 14	37 25 19	59 39 29	86 60 44	110 70 53	160 105 83	255 170 130	360 240 185	480 320 235	690 470 355	900 670 500
125	1500 1000 750	12 8 6	5.5 3.7 2.7	9 6 4.6	12 8.5 6.5	18 12 9	24 16 12	33 23 17	52 34 26	78 53 40	97 65 48	145 95 71	230 155 115	320 210 160	425 310 210	610 420 310	880 570 440
140	1500 1000 750	10.7 7.15 5.4	4.9 3.3 2.5	8 5.5 4.1	11 7.5 5.5	16 11 8	22 15 11	29 21 16	46 31 23	70 48 36	87 58 44	130 135 100	205 190 145	290 250 190	380 365 275	550 520 395	800
160	1500 1000 750	9.37 6.25 4.68	4.4 2.9 2.2	7.5 4.9 3.6	10 7 5	14 9.5 7.5	20 13 10	27 18 14	41 27 21	63 42 32	76 51 39	115 75 58	180 120 91	255 170 130	340 225 170	495 330 250	710 470 360
180	1500 1000 750	8.34 5.56 4.17	3.9 2.6 2	6.5 4.3 3.2	9 6 4.5	13 8.5 6.5	17 12 9	24 16 12	37 25 19	57 38 29	69 46 35	100 68 51	160 105 81	225 150 115	295 200 155	435 290 220	630 420 320
200	1500 1000 750	7.5 5 3.75	3.5 2.3 1.9	5.8 3.8 2.9	8 5.5 4.3	12 8 6	15 10 8	22 14 11	33 22 17	51 34 26	62 41 30	92 61 44	145 96 72	205 135 100	270 180 135	395 260 200	560 375 280
224	1500 1000 750	6.7 4.47 3.35	3.1 2.1 1.7	5 3.4 2.6	7 4.7 3.8	10 7 5	14 9 7	19 13 10	30 20 15	45 30 23	55 37 28	82 54 41	130 86 65	185 120 92	240 160 120	355 235 175	500 340 255
250	1500 1000 750	6 4 3	2.8 1.9 1.5	4.6 3.1 2.3	6.5 4.7 3.4	9.5 8.5 4.5	12 10 6.5	17 12 9	26 17 13	40 27 20	48 32 24	71 48 36	115 77 58	165 110 82	215 145 110	315 210 155	450 300 225
280	1500 1000 750	5.35 3.57 2.67	2.7 1.7 1.2	3.4 2.3 1.6	5.5 3.8 2.7	8 5.5 4.1	11 7.5 5.5	15 11 8	23 16 12	36 24 18	44 29 22	65 43 32	100 67 50	145 95 71	205 125 71	275 185 140	395 265 195
315	1500 1000 750	4.76 3.17 2.38	2.3 1.6 1.2	3.1 2.1 1.5	5 3.5 2.6	7.5 4.8 3.7	9.5 6.5 5	14 9 7	21 14 11	32 21 16	39 25 20	58 37 29	91 60 46	130 86 65	170 115 86	250 165 125	335 225 170
355	1500 1000 750	4.23 2.82 2.12	2.1 1.3 1.0	2.8 1.9 1.3	4.6 3 2.3	6.5 4.3 3.2	8.5 6 4.4	11 7.5 5.5	18 12 9	23 16 12	35 29 17	43 29 21	82 53 41	115 75 58	155 99 77	205 135 105	275 185 140
400	1500 1000 750	3.75 2.5 1.88	1.7 1.1 0.8	2.4 1.5 1.2	3.8 2.5 1.9	5 3.3 2.5	7.5 5 4.5	9 6 7.5	15 10 9.5	19 13 14	28 24 17	35 24 17	71 47 35	100 68 52	120 81 61	170 115 85	240 160 120
450	1500 1000 750	3.33 2.22 1.60	1.3 0.9 0.7	2.1 1.4 1.1	3 2 1.5	5 3.3 2.5	7 5 3.7	9 6 4.5	13 9 7	19 13 9.5	28 19 14	35 24 17	57 38 28	88 61 45	105 73 54	150 100 76	215 145 105
500	1500 1000 750	3 2 1.5				3.8 2.5 1.9	6 4 3.1	7 4.6 3.4	9.5 6.5 4.8	16 11 8	22 15 11	43 29 11	70 47 12	96 64 21	130 87 35	145 99 48	185 125 73
560	1500 1000 750	2.68 1.79 1.34					5.5 3.6 2.7	6 4 3	8.5 5.5 4.2	14 11 7	20 15 10	22 15 11	38 26 19	62 42 31	85 57 43	130 87 43	165 110 64
630	1500 1000 750	2.38 1.59 1.19						4.8 3.2 2.4	7 4.6 3.4	11 7.5 5.5	14 9.5 7	17 11 8.5	29 19 14	43 29 21	70 46 35	105 69 52	140 93 70
Nominal transmission ratio i_N	input speeds rpm n_1	Size of gear unit															
		160	180	200	225	250	280	315	355	400	450	500	560	630	710	800	
Thermal capacity, P_{G1} [kW], for gear boxes without cooling																	
100 to 630	1500 1000 750	17 15 14	22 18 16	28 24 23	36 32 30	45 40 35	60 55 45	76 66 62	100 85 80	122 110 102	152 135 130	195 175 160	240 230 205	305 290 285	390 365 345	510 490 470	

For power ratings indicated in **heavy type** a check of the thermal capacity is always necessary (see the example of a calculation). At normal type print this is necessary only at an ambient temperature deviating from 20°C. Thermal capacity, P_{G2} [kW] and dimensions for gears with fan cooling on request. The nominal transmission ratio is maintained with a tolerance of about – 3% Intermediate transmission ratios are possible.

**COOLING TOWER GEAR
TYPE : RBV - NL***



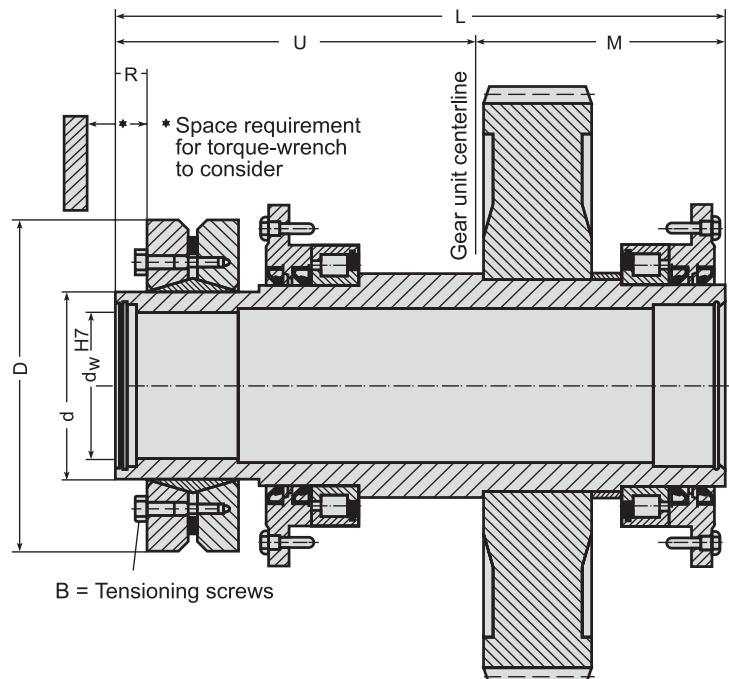
Gear Size	DRIVE SHAFT				OUTPUT SHAFT		DIMENSIONS [mm]												WEIGHT [kg]	OIL QUANTITY [LITRES]		
	$i_N \leq 10$		$i_N > 10$				A	B	C	E	F	G	H	h	K	N	O	P	R	S		
	d	I	d	I	D	L																
160	40	110	35	80	70	140	500	500	190	400	360	110	420	140	30	18	115	210	35	440	220	8
180	42	110	40	110	80	170	565	565	215	450	410	120	480	160	30	18	135	240	35	505	290	11
200	50	110	45	110	90	170	625	625	240	500	450	130	540	180	35	23	145	255	40	555	375	16
225	55	110	50	110	100	210	705	705	260	550	500	140	600	200	35	23	165	290	45	635	490	21
250	60	140	55	110	110	210	785	785	290	620	560	145	680	225	40	27	180	315	50	705	645	29
280	65	140	60	140	120	210	875	875	325	690	630	160	750	250	45	27	200	355	55	785	845	39
315	75	140	70	140	140	250	975	975	355	770	700	170	840	280	50	33	220	405	60	875	1170	51
355	90	170	80	170	160	300	1085	1085	390	840	770	180	950	315	55	33	245	450	75	975	1620	67
400	100	210	90	170	170	300	1215	1215	440	930	860	190	1070	355	55	33	280	510	90	1105	2230	87
450	110	210	95	170	190	350	1365	1365	490	1030	940	200	1200	400	60	39	315	575	100	1245	3080	115

Shaft ends with key as per DIN - 6885, Sheet 1, from A
 Shaft centering as per din-332 form DS (With therads)
 Tolerance field for shaft ends ISO fit up to ± 50 mm k6 over ± 50 mm m6
 Changes of dimension reserved

NOMINAL GEAR RATIO i_N	NOMINAL SPEEDS [RPM]; n_1 n_2		GEAR SIZE									
			160	180	200	225	250	280	315	355	400	450
	VENTILATOR CAPACITY P_e (kW)											
6.3	1500	240	54	74	102*	141*	194*	267*	370*	510*	708*	972*
	1000	160	36	49	68	94	129	178	247	340	472	648
7.1	1500	210	48	66	91	126*	174*	239*	332*	457*	632*	871*
	1000	140	32	44	61	84	116	159	221	305	421	581
8	1500	188	43	59	82	113	156	213*	296*	408*	565*	778*
	1000	125	29	39	55	75	104	142	197	272	376	519
9	1500	167	38	53	73	101	139	190	264*	364*	504*	694*
	1000	111	25	35	49	67	93	127	176	243	336	463
10	1500	150	34	47	65	90	124	170	236	325*	450*	620*
	1000	100	23	31	43	60	83	113	157	217	300	413
11.2	1500	134	30	42	58	80	111	152	211	290	402*	554*
	1000	89	20	28	39	53	74	101	141	193	268	369
12.5	1500	120	27	37	52	72	99	136	188	259	359	494
	1000	80	18	25	35	48	66	91	125	173	239	329
14	1500	107	24	33	46	64	88	121	168	231	320	441
	1000	71	16	22	31	43	59	81	112	154	213	294
16	1500	94	22	30	41	57	79	108	150	207	286	394
	1000	62	15	20	27	38	53	72	100	138	191	263
18	1500	83	19	27	37	51	70	96	134	184	255	352
	1000	56	13	18	25	34	47	64	89	123	170	235
			LIMITING THERMAL OUT PUT (PG(kW)) FOR GEAR WITHOUT COOLING.									
			65	80	100	125	160	200	250	315	400	500
			PERMISSIBLE AXIAL LOAD OF THE OUTPUT SHAFT.									
			1600	1800	2000	2300	2650	3000	4000	5000	6000	7000

* THE CAPACITIES MARKED WITH REQUIRED AN ADDITIONAL COOLING
ABOVE RATINGS ARE INCLUSIVE OF SF=2.0, HENCE NO SF IS TO BE CONSIDERED ON MOTOR POWER

**Hollow shaft design
with shrink disc***

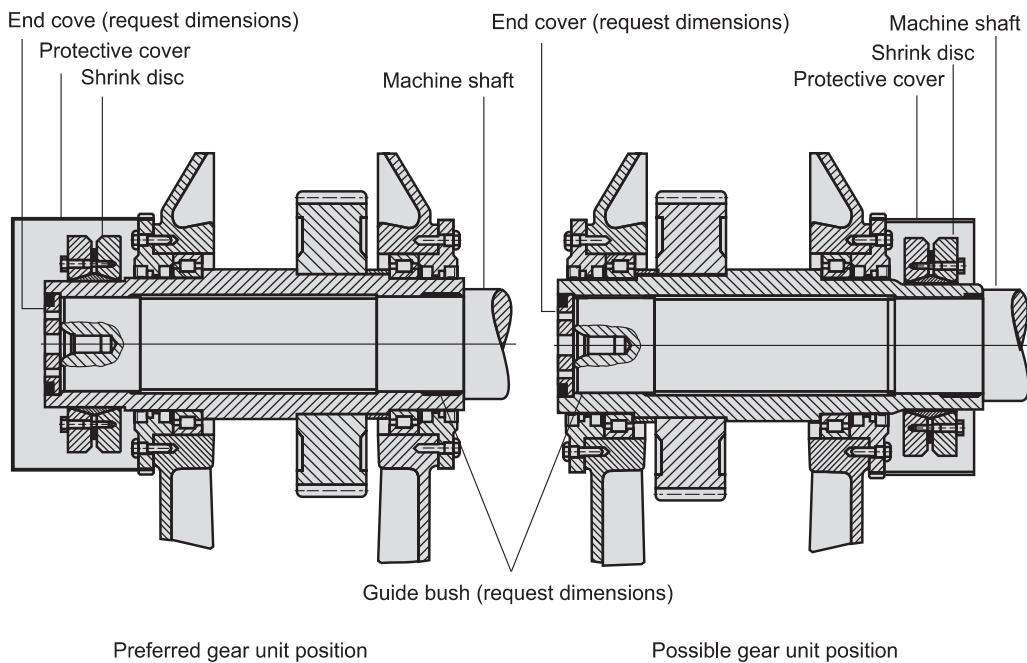


Size of Gear Unit	Hollow shaft					Shrink disc					Screws		Weight [kg]
	d_w	L	M	R	U	Type	D	d	M_t [da Nm]	B	M_a [da Nm]		
160	80	370	145	26	225	110-72	185	110	900	M 10	5.8	5.9	
180	90	410	160	27	250	125-72	215	125	1300	M 10	5.8	8.3	
200	100	450	175	32	275	140-71	230	140	1760	M 12	10	10	
225	110	485	190	33	295	155-71	263	155	2500	M 12	10	15	
250	120	535	210	37	325	165-71	290	165	3500	M 12	24	22	
280	135	590	230	35	360	175-71	300	175	4800	M 16	24	22	
315	160	680	260	37	420	220-71	370	220	10000	M 16	24	54	
355	180	735	285	38	450	240-71	405	240	13800	M 20	47	67	
400	200	795	305	46	490	260-71	430	260	18400	M 20	47	82	
450	220	895	345	48	550	280-71	460	280	24500	M 20	47	102	
500	280	1190	475	61	715	350-71	570	350	50000	M 20	47	204	
560	310	1270	510	67	760	390-71	660	390	71000	M 20	47	260	
630	340	1400	560	71	840	420-71	690	420	84000	M 20	47	316	
710	380	1490	600	73	890	460-71	770	460	114000	M 20	47	420	
800	420	1600	645	82	955	500-71	850	500	160000	M 20	47	575	

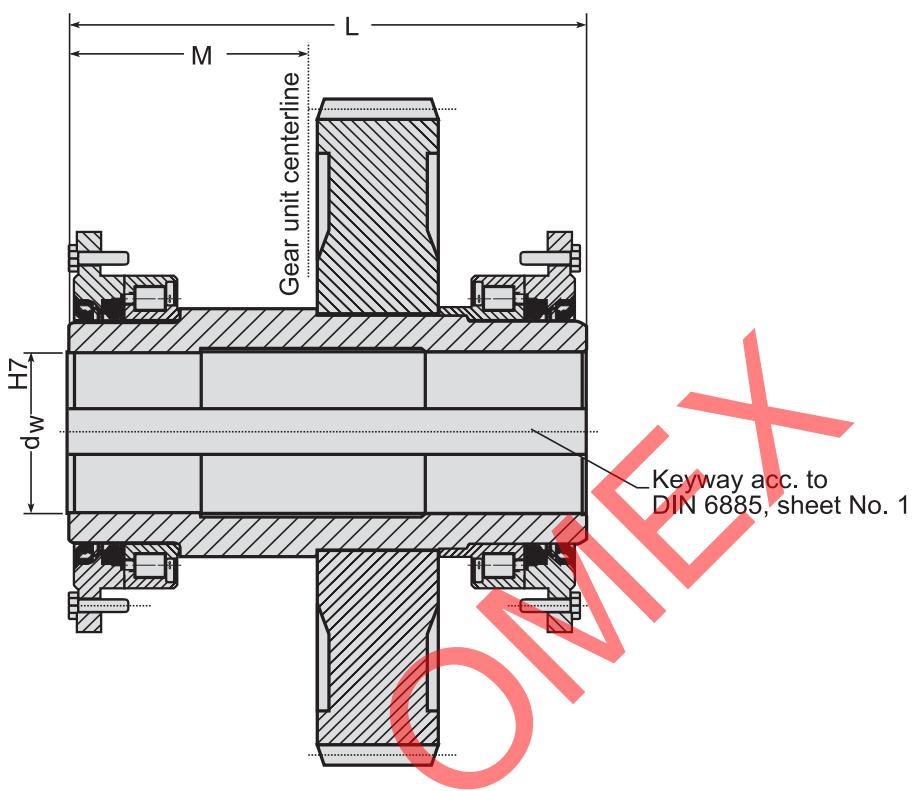
M_a = Required tightening torque.

M_t = Maximum torque transmitted by shrink disc.

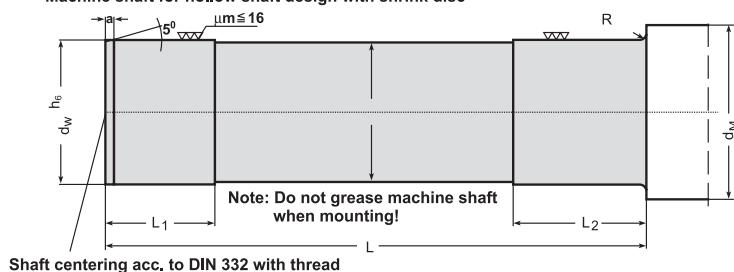
Hollow shaft gear unit design*



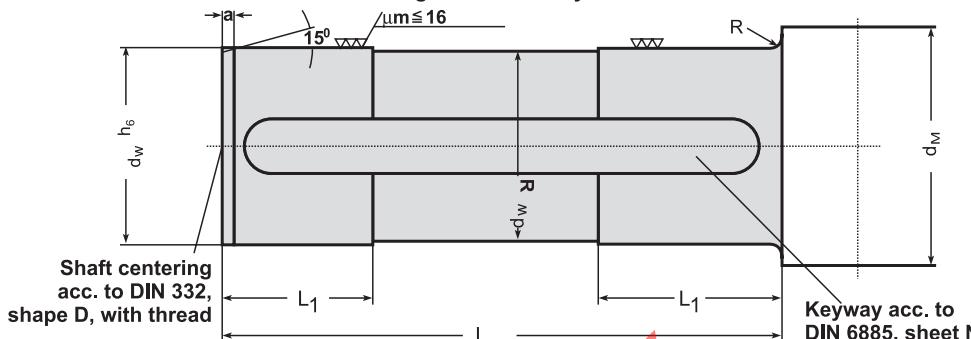
Hollow shaft design with fitted key*



Size of Gear unit	d_w (max)	L	M
80	35	160	80
90	40	180	90
100	50	200	100
110	55	220	110
125	60	240	120
140	70	270	135
160	75	290	145
180	90	320	160
200	105	350	175
225	110	380	190
250	120	420	210

Machine shafts*
Machine shaft for hollow shaft design with shrink disc


Size of gear unit	a	d_M (min)	d_w	d_i	L	L_1	L_2	R
160	5	100	80	78	355	65	90	1.6
180	5	110	90	88	395	70	100	1.6
200	5	125	100	98	430	75	110	1.6
225	5	135	110	108	465	80	120	1.6
250	6	150	120	118	510	90	130	2.5
280	6	165	135	133	565	100	140	2.5
315	6	190	160	158	655	120	160	2.5
355	6	210	180	178	710	125	170	2.5
400	8	240	200	198	765	145	190	4
450	8	260	220	218	860	150	200	4
500	10	320	280	278	1145	240	290	4
560	10	350	310	308	1225	260	310	4
630	12	380	340	338	1355	280	330	6
710	12	430	380	378	1440	300	350	6
800	12	470	420	418	1550	320	380	6

Machine shaft for hollow shaft design with fitted key


Size of gear unit	a	d_M (min)	d_w	L	L_1	R
80	3	55	35	157	35	2.5
90	3	60	40	177	40	2.5
100	3	70	50	197	50	2.5
110	4	75	55	217	55	2.5
125	4	80	60	237	60	2.5
140	4	90	70	267	70	2.5
160	5	95	75	287	75	4
180	5	110	90	317	90	4
200	5	125	105	347	105	4
225	5	135	110	377	115	4
250	6	150	120	417	130	6

- 1) Dim. d_w with fitting tolerance g6 from diameter 160mm upwards.

**Inertia, GD^2 [Kgm 2]
relative to the input shaft**

Type DAN

Gear unit Size of	Transmission ratio												
	1.6	1.8	2	2.24	2.5	2.8	3.15	3.55	4	4.5	5	5.6	6.3
80	0.0056	0.0049	0.0044	0.0038	0.0035	0.0031	0.0028	0.0022	0.0019	0.0017			
90	0.0114	0.0099	0.0087	0.0075	0.0066	0.0057	0.0050	0.0041	0.0035	0.0030	0.0027		
100	0.0192	0.0167	0.0150	0.0134	0.0117	0.0103	0.0092	0.0074	0.0065	0.0056	0.0049	0.0039	
110	0.0329	0.0287	0.0256	0.0229	0.0205	0.0183	0.0164	0.0120	0.0104	0.0090	0.0078	0.0063	0.0057
125	0.0609	0.0538	0.0485	0.0428	0.0385	0.0338	0.0303	0.0229	0.0197	0.0171	0.0149	0.0119	0.0103
140	0.1043	0.0917	0.0813	0.0725	0.0644	0.0564	0.0510	0.0388	0.0343	0.0290	0.0256	0.0208	0.0178
160	0.1892	0.1649	0.1486	0.1316	0.1183	0.1042	0.0926	0.0723	0.0631	0.0538	0.0472	0.0392	0.0333
180	0.3497	0.3074	0.2743	0.2416	0.2157	0.1745	0.1675	0.1291	0.1125	0.0967	0.0846	0.0695	0.0586
200	0.5755	0.5108	0.4507	0.4038	0.3514	0.3106	0.2735	0.2160	0.1898	0.1618	0.1403	0.1139	0.0983
225	1.0014	0.8801	0.7836	0.6958	0.6205	0.5547	0.4881	0.3858	0.3318	0.2896	0.2529	0.2074	0.1741
250	1.6644	1.4768	1.3113	1.1620	1.0322	0.9146	0.8067	0.6536	0.5627	0.4931	0.4262	0.3441	0.2923
280	2.8507	2.5158	2.2396	1.9785	1.7872	1.5897	1.3822	1.1240	0.9668	0.8525	0.7310	0.5995	0.5100
315	5.0031	4.2731	3.9611	3.4713	3.0799	2.7385	2.4019	1.9364	1.6713	1.4486	1.2665	1.0508	0.8938
355	9.1381	8.0405	7.1603	6.3085	5.5454	4.8798	4.3155	3.6141	3.1717	2.7258	2.3560	1.9570	1.6424
400	16.3460	14.3211	12.8302	11.4472	10.0618	8.9604	7.8642	6.5225	5.6872	4.9513	4.2079	3.5074	3.0731
450	29.2141	25.8859	23.1367	20.5245	18.3050	15.9891	14.0735	11.8213	10.3121	8.9278	7.5931	6.3265	5.4216
500	48.5777	43.0958	38.3208	34.3368	29.8913	26.5409	23.5798	19.0048	16.4526	14.2221	12.2434	10.4745	8.6746
560	104.1878	90.0541	78.9130	69.1569	60.2662	52.6663	44.6843	37.1439	31.8064	26.8264	23.5155	19.6305	16.414
630				115.9194	103.1766	91.1936	79.6143	70.0504	58.1917	50.6604	43.1408	37.5024	31.5732
													26.3924

Type DBN/DBH/DBA

Gear unit Size of	Transmission ratio												
	6.3	7.1	8	9	10	11.2	12.5	14	16	18	20	22.4	25
110	0.0090	0.0077	0.0066	0.0052	0.0049	0.0039	0.0038	0.0030	0.0026	0.0020	0.0019	0.0017	0.0015
125	0.0169	0.0145	0.0125	0.0100	0.0095	0.0076	0.0073	0.0057	0.0049	0.0037	0.0036	0.0030	0.0025
140	0.0299	0.0253	0.0220	0.0174	0.0166	0.0132	0.0127	0.0103	0.0089	0.0068	0.0066	0.0051	0.0043
160	0.0549	0.0466	0.0407	0.0326	0.0312	0.0250	0.0242	0.0174	0.0150	0.0113	0.0109	0.0085	0.0071
180	0.0994	0.0845	0.0742	0.0591	0.0565	0.0450	0.0434	0.0321	0.0277	0.0210	0.0203	0.0154	0.0132
200	0.1633	0.1415	0.1228	0.0983	0.0939	0.0748	0.0721	0.0539	0.0473	0.0355	0.0344	0.0296	0.0244
225	0.3024	0.2530	0.2181	0.1749	0.1667	0.1344	0.1292	0.0974	0.0853	0.0645	0.0624	0.0496	0.0412
250	0.5403	0.4711	0.6641	0.3185	0.3042	0.2470	0.2380	0.1747	0.1517	0.1174	0.1138	0.0882	0.0736
280	0.9018	0.7849	0.6641	0.5260	0.5013	0.3937	0.3781	0.2941	0.2527	0.1944	0.1882	0.1461	0.1224
315	1.6963	1.4344	1.2139	0.9651	0.9213	0.7223	0.6947	0.5394	0.4621	0.3575	0.3466	0.2753	0.2284
355	2.9148	2.4747	2.1188	1.6496	1.5775	1.2259	1.1805	0.9374	0.8020	0.6291	0.6111	0.4685	0.3957
400	5.1242	4.2802	3.6704	2.9296	2.7935	2.1581	2.0724	1.6275	1.3936	1.0846	1.0506	0.8179	0.6895
450	9.0475	7.5773	6.4916	5.0463	4.7941	3.7423	3.5835	2.8159	2.3971	1.8429	1.7799	1.4377	
500	15.6595	13.2983	11.3664	9.7636	8.3816	7.2303	6.2735	5.2473	4.5506	3.9246	3.4127	2.9676	
560	28.5989	24.1245	20.5463	17.8981	15.4434	13.4355	11.6863	9.6167	8.2983	7.1766	6.2952	5.5222	
630	48.5326	42.2890	36.7028	31.7153	27.6493	24.0980	20.7686	17.4848	14.7742	12.8378	11.1630	9.7070	
710	80.7450	70.2130	61.0548	53.0911	46.1662	40.1445	34.9080	30.3550	26.3956	22.9528	19.9590	17.3555	
800	141.7000	132.4300	108.2000	102.0750	78.5200	74.0200	64.9800	54.1500	52.5700	40.4400	33.7010	26.0800	

Type DCN/DCH/DCA

Gear unit Size of	Transmission ratio																	
	14	16	18	20	22.4	25	28	31.5	35.5	40	45	50	56	63	71	80	90	100
160	0.0174	0.0157	0.0129	0.0117	0.0098	0.0090	0.0078	0.0079	0.0056	0.0044	0.0041	0.0032	0.0027	0.0029	0.0025	0.0021	0.0018	0.0015
180	0.0325	0.0291	0.0235	0.0214	0.0179	0.0165	0.0142	0.0144	0.0104	0.0080	0.0076	0.0060	0.0051	0.0046	0.0039	0.0034	0.0030	0.0029
200	0.0553	0.0500	0.0403	0.0366	0.0305	0.0282	0.0243	0.0246	0.0177	0.0137	0.0129	0.0105	0.0088	0.0096	0.0080	0.0071	0.0060	0.0059
225	0.0996	0.0903	0.0729	0.0657	0.0548	0.0505	0.0437	0.0436	0.0323	0.0261	0.0247	0.0176	0.0152	0.0158	0.0138	0.0115	0.0099	0.0098
250	0.1826	0.1633	0.1381	0.1202	0.1002	0.0923	0.0800	0.0803	0.0589	0.0460	0.0434	0.0329	0.0280	0.0299	0.0256	0.0218	0.0188	0.0185
280	0.3105	0.2784	0.2243	0.2035	0.1706	0.1570	0.1356	0.1361	0.0999	0.0779	0.0751	0.0666	0.0487	0.0512	0.0444	0.0372	0.0319	0.0317
315	0.5831	0.5197	0.4214	0.3819	0.3179	0.2921	0.2503	0.2559	0.1841	0.1442	0.1358	0.1049	0.0897	0.0956	0.0823	0.0700	0.0608	0.0604
355	1.0166	0.9124	0.7365	0.5718	0.5680	0.5229	0.4469	0.4596	0.3266	0.2542	0.2395	0.1857	0.1578	0.1694	0.1449	0.1246	0.1066	0.1059
400	1.7520	1.5565	1.2424	1.1259	0.9546	0.8772	0.7499	0.7576	0.5444	0.4308	0.3942	0.3144	0.2666	0.2837	0.2423	0.2040	0.1761	0.1768
450	3.1215	2.8049	2.2637	2.0636	1.7214	1.5810	1.3347	1.3679	1.0294	0.7653	0.7194	0.4814	0.2834	0.5138	0.4353	0.3723	0.3254	0.3229
500	5.8534	5.2496	4.7588	4.2648	3.4638	3.1941	2.6824	2.7422	2.3254	2.0025	1.7257	0.5686	0.4785	0.1066	0.8836	0.6093	0.6464	0.5541
560	10.4749	9.4324	8.5255	7.6012	6.1504	5.6342	4.6583	4.8222	4.0167	3.5039	3.0099	2.6135	2.2658	1.9339	1.5501	1.3115	1.1272	0.9613
630	18.8051	16.7974	15.1032	13.6513	11.0804	10.1255	8.4253	8.6461	7.2564	6.2751	5.3475	4.5608	3.9203	3.3567	2.7032	2.2840	1.9413	1.6734
710	34.5261	31.0451	28.3490	25.3529	20.5090	18.6702	15.6148	15.9983	13.5037	11.7029	9.9412	8.4943	7.2717	6.2523	5.2272	4.4962	3.8431	3.3761
800	62.6566	56.4285	49.8868	45.3500	36.6775													

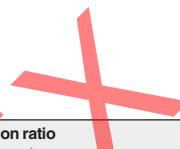
Inertia, GD^2 [kgm 2] relative to the input shaft

Type RBN/RBH/RBA

Size of gear unit	Transmission ratio										
	6.3	7.1	8	9	10	11.2	12.5	14	16	18	20
80	0.0025	0.0025	0.0024	0.0020	0.0016	0.0014	0.0012	0.0010	0.0009	0.0008	0.0007
90	0.0050	0.0047	0.0044	0.0036	0.0029	0.0024	0.0020	0.0017	0.0014	0.0012	0.0011
100	0.0073	0.0070	0.0068	0.0055	0.0046	0.0038	0.0032	0.0027	0.0023	0.0020	0.0018
110	0.0110	0.0106	0.0103	0.0083	0.0068	0.0056	0.0046	0.0039	0.0034	0.0028	0.0024
125	0.0205	0.0197	0.0190	0.0155	0.0128	0.0105	0.0087	0.0072	0.0061	0.0052	0.0046
140	0.0383	0.0368	0.0354	0.0288	0.0236	0.0193	0.0160	0.0134	0.0112	0.0095	0.0082
160	0.0696	0.0667	0.0645	0.0522	0.0429	0.0350	0.0290	0.0241	0.0199	0.0169	0.0148
180	0.1237	0.1190	0.1149	0.0939	0.0776	0.0642	0.0538	0.0453	0.0378	0.0323	0.0286
200	0.2235	0.2155	0.2087	0.1698	0.1411	0.1172	0.0982	0.0831	0.0695	0.0599	0.0531
225	0.3932	0.3782	0.3655	0.2966	0.2442	0.2010	0.1666	0.1400	0.1169	0.0992	0.0873
250	0.6985	0.6750	0.6526	0.5257	0.4290	0.3502	0.2878	0.2378	0.1994	0.1658	0.1435
280	1.1869	1.1473	1.1087	0.8920	0.7220	0.5894	0.4798	0.3935	0.3270	0.2696	0.2327
315	2.1780	2.1049	2.0365	1.6315	1.3242	1.0811	0.8748	0.7174	0.5946	0.4869	0.4168
355	3.9871	3.8329	3.7203	2.9970	2.4383	1.9923	1.6328	1.3515	1.1319	0.9386	0.8113
400	7.0063	6.7242	6.5116	5.2455	4.2737	3.4949	2.8625	2.3740	1.9920	1.6536	1.4315
450	13.4583	13.0192	12.6252	10.1628	8.2825	6.7342	5.5142	4.5677	3.8215	3.2505	2.7662
500	24.6957	23.8791	23.2011	18.5713	15.0635	12.1569	9.8988	8.0856	6.6975	5.5200	
560	43.8212	42.5667	41.4512	32.9657	26.7468	21.5321	17.3616	14.0481	11.5030	9.5517	

Type RCN/RCH/RCA

Size of gear unit	Transmission ratio																	
	14	16	18	20	22.4	25	28	31.5	35.5	40	45	50	56	63	71	80	90	100
110	0.0059	0.0056	0.0043	0.0041	0.0039	0.0031	0.0036	0.0029	0.0024	0.0020	0.0016	0.0014	0.0012	0.0010	0.0009	0.0009	0.0008	0.0007
125	0.0103	0.0097	0.0073	0.0069	0.0066	0.0052	0.0061	0.0048	0.0039	0.0032	0.0026	0.0022	0.0018	0.0015	0.0013	0.0012	0.0011	0.0010
140	0.0180	0.0170	0.0127	0.0121	0.0114	0.0091	0.0107	0.0085	0.0069	0.0056	0.0047	0.0039	0.0032	0.0027	0.0023	0.0020	0.0018	
160	0.0283	0.0266	0.0201	0.0189	0.0181	0.0155	0.0166	0.0129	0.0106	0.0086	0.0070	0.0058	0.0048	0.0040	0.0034	0.0033	0.0029	0.0025
180	0.0516	0.0483	0.0369	0.0348	0.0321	0.0259	0.0304	0.0238	0.0194	0.0158	0.0130	0.0107	0.0089	0.0073	0.0061	0.0061	0.0053	0.0046
200	0.0930	0.0877	0.0749	0.0627	0.0599	0.0472	0.0553	0.0436	0.0354	0.0287	0.0235	0.0193	0.0159	0.0134	0.0111	0.0110	0.0095	0.0082
225	0.1686	0.1594	0.1208	0.1136	0.1082	0.0854	0.0995	0.0785	0.0638	0.0517	0.0424	0.0346	0.0287	0.0239	0.0197	0.0196	0.0167	0.0146
250	0.3007	0.2815	0.2140	0.2019	0.1918	0.1526	0.1767	0.1406	0.1145	0.0936	0.0774	0.0641	0.0536	0.0452	0.0377	0.0375	0.0321	0.0284
280	0.5381	0.5060	0.3881	0.3675	0.3504	0.2793	0.3238	0.2583	0.2093	0.1703	0.1415	0.1175	0.0984	0.0833	0.0696	0.0692	0.0598	0.0529
315	0.9763	0.8792	0.6969	0.6575	0.6249	0.4928	0.5790	0.4565	0.3720	0.3019	0.2484	0.2044	0.1693	0.1421	0.1186	0.1179	0.0999	0.0879
355	1.7275	1.6234	1.2372	1.1725	1.1155	0.8762	1.0353	0.8129	0.6597	0.5313	0.4335	0.3538	0.2907	0.2400	0.2012	0.2001	0.1663	0.1439
400	2.9719	2.7765	2.1019	1.9853	1.8875	1.4265	1.7360	1.3624	1.1064	0.8902	0.7205	0.5883	0.4790	0.3928	0.3264	0.3243	0.2675	0.2309
450	5.3823	5.0658	3.8302	3.6301	3.4523	2.6776	3.1827	2.4645	2.0058	1.6071	1.3045	1.0654	0.8624	0.7076	0.5870	0.5830	0.4777	0.4093
500	10.1081	9.5043	9.0135	8.5195	8.4334	6.1637	4.8493	5.7118	4.4923	3.6492	2.9403	2.3928	1.9561	1.6042	1.3290	1.1141	0.9246	0.7999
560	18.0444	17.0019	19.0950	15.1708	11.3425	10.8264	8.5222	10.0144	7.8806	6.4023	5.1584	4.2038	3.4391	2.8185	2.3393	1.9647	1.6321	1.4140
630	34.1775	32.1698	30.4756	29.0237	22.1193	21.1645	16.6199	19.6851	15.4510	12.4880	10.0535	8.1947	6.6642	5.4589	4.5242	3.7872	3.2234	2.7443
710	65.1838	61.7030	59.0068	56.0107	41.6337	39.7949	31.5162	37.0690	29.3624	23.4664	18.7828	15.2333	12.2922	10.0057	8.1699	6.7638	5.5724	4.7764
800	116.5060	110.2779	103.7362	99.1994	75.2618	72.1896	56.2157	67.3242	52.3714	41.8444	33.2792	26.9985	21.7329	17.5200	14.1730	11.6013	9.6294	8.2563

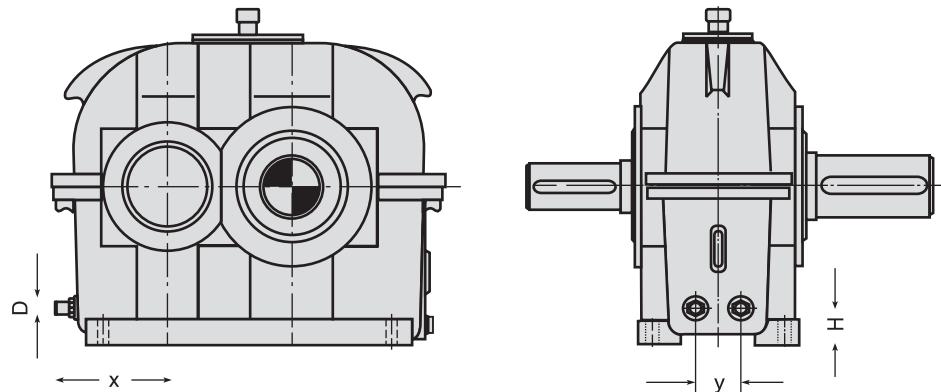


Type RDN/RDH/RDA

Size of gear unit	Transmission ratio																	
	100	112	125	140	160	180	200	224	250	280	315	355	400	450	500	560	630	710
160	0.0039	0.0031	0.0029	0.0033	0.0026	0.0031	0.0025	0.0017	0.0016	0.0016	0.0016	0.0016	0.0015	0.0015	0.0015	0.0013	0.0011	0.0010
180	0.0050	0.0040	0.0036	0.0039	0.0031	0.0035	0.0028	0.0019	0.0018	0.0018	0.0017	0.0017	0.0016	0.0016	0.0016	0.0013	0.0011	0.0011
200	0.0070	0.0056	0.0049	0.0050	0.0040	0.0042	0.0034	0.0024	0.0022	0.0021	0.0020	0.0019	0.0018	0.0018	0.0017	0.0015	0.0012	0.0012
225	0.0129	0.0102	0.0090	0.0092	0.0073	0.0078	0.0062	0.0043	0.0040	0.0038	0.0036	0.0034	0.0033	0.0033	0.0032	0.0027	0.0023	0.0022
250	0.0226	0.0181	0.0160	0.0161	0.0131	0.0138	0.0112	0.0078	0.0073	0.0078	0.0069	0.0065	0.0062	0.0060	0.0059	0.0046	0.0039	0.0031
280	0.0431	0.0324	0.0285	0.0313	0.0231	0.0270	0.0197	0.0134	0.0124	0.0117	0.0110	0.0105	0.0101	0.0101	0.0098	0.0082	0.0066	0.0064
315	0.0743	0.0572	0.0505	0.0533	0.0406	0.0453	0.0344	0.0242	0.0225	0.0211	0.0199	0.0190	0.0183	0.0182	0.0178	0.0142	0.0121	0.0118
355	0.1297	0.1009	0.0887	0.0915	0.0708	0.0771	0.0594	0.0419	0.0387	0.0361	0.0341	0.0326	0.0312	0.0312	0.0303	0.0245	0.0207	0.0202
400	0.2258	0.1758	0.1555	0.1611	0.1248	0.1367	0.1057	0.0756	0.0703	0.0659	0.0625	0.0598	0.0575	0.0574	0.0560	0.0451	0.0381	0.0373
450	0.4046	0.3157	0.2793	0.2877	0.2237	0.2431	0.1886	0.1340	0.1243	0.1162	0.1100	0.1052	0.1009	0.1008	0.0981	0.0846	0.0692	0.0678
500	0.8270	0.6557	0.5589	0.4920	0.4925	0.3923	0.3279	0.3006	0.2308	0.2133	0.1992	0.1882	0.1796	0.1720	0.1670	0.1372	0.1165	0.1139
560	1.4702	1.1598	0.9904	0.8731	0.8846	0.6987	0.5809	0.5331	0.4186	0.3880								

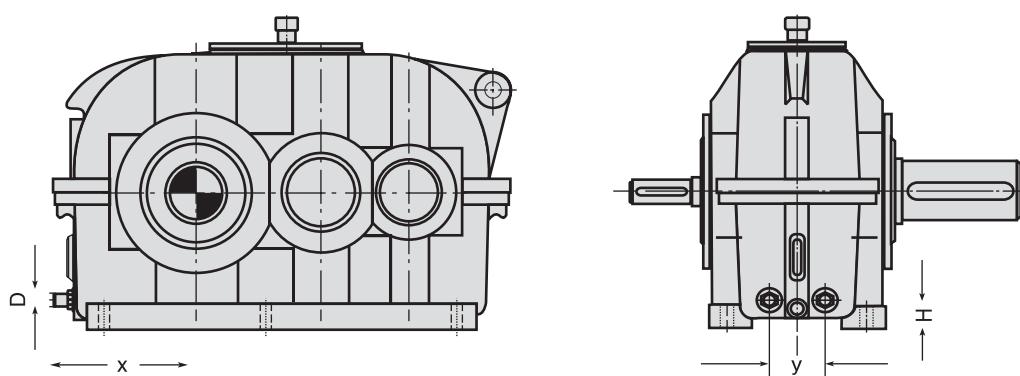
Water cooling/Cooling coils
Dimensions for connections

DAN



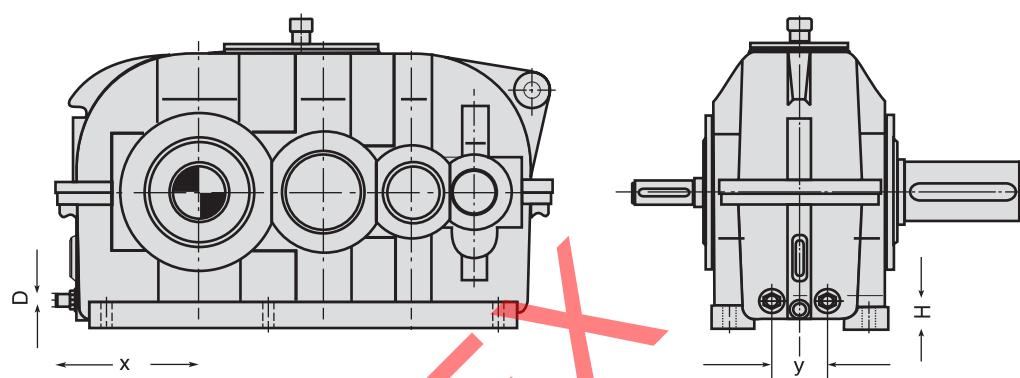
DBN / DBH

Type DBA
Dimensions
on request



DCN / DCH

Type DCA
Dimensions
on request



Type of gear unit	Dimensions	Size of gear unit																					
		80	90	100	110	125	140	160	180	200	225	250	280	315	355	400	450	500	560	630	710	800	
DAN	D	On request	R 1/2"												R 3/4"						On request		
	H		45		50		60		70		100		130										
	x		135	145	155	170	180	200	215	235	255	280	305	335	375	405	445	480					
	y		40	55		80			100		150		200										
DBN/DBH	D	R 3/8"				R 1/2"				R 3/4"						R 3/4"						On request	
	H		37	40	45	55	65	70	80	105													
	x		160	180	195	215	230	250	270	295	325	350	380	425	470	515	570	630					
	y		56	70		100		170		230													
DCN/DCH	D		R3/8"				R 1/2"				R 3/4"						R 3/4"						On request
	H			40	45		55		65		70		80		105								
	x			215	230	250	270	295	325	350	380	425	470	515	570	630							
	y			70		100		170		230													

Thermal capacities for gear units with built-in cooling coil according to the values in the power tables (see also calculation example).

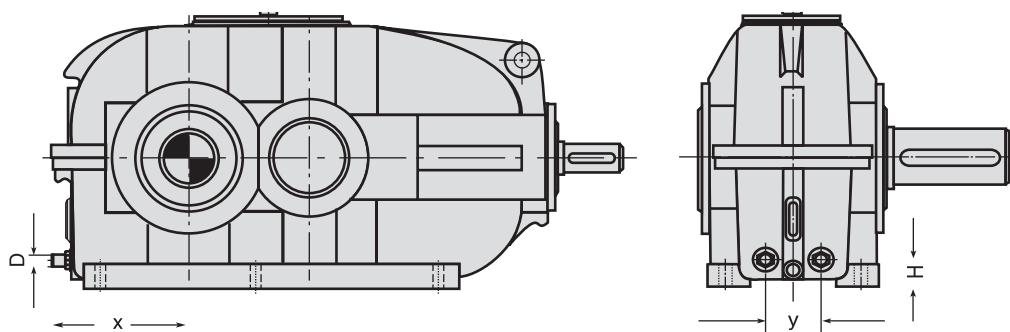
If desired an oil pump and external oil cooler can be offered instead of a cooling coil.

The values given in the power tables apply for a maximum inlet temperature of 20°C. At higher inlet temperatures, please inquire.

Water cooling/Cooling coils Dimensions for connections

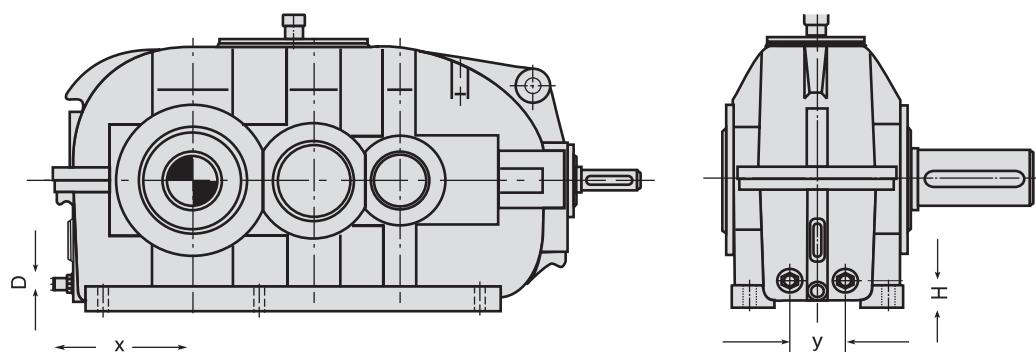
RBN/RBH

Type RBA
Dimensions
on request

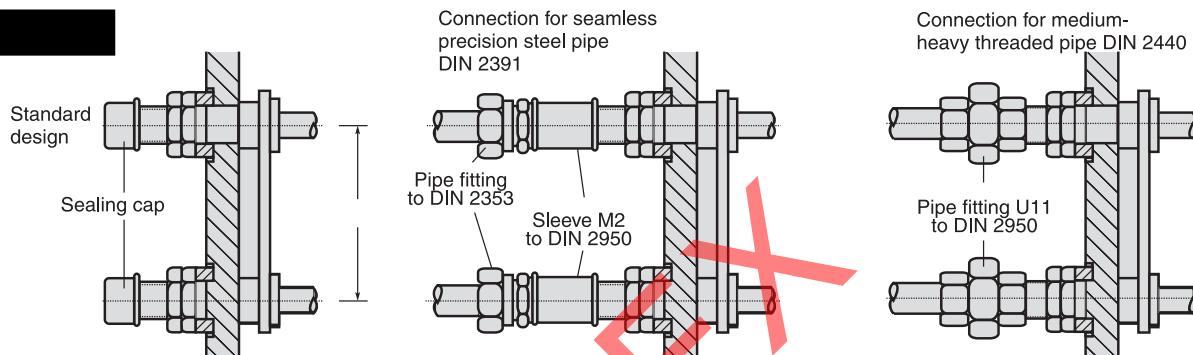


RCN/RCH

Type RCA
Dimensions
on request



Connections



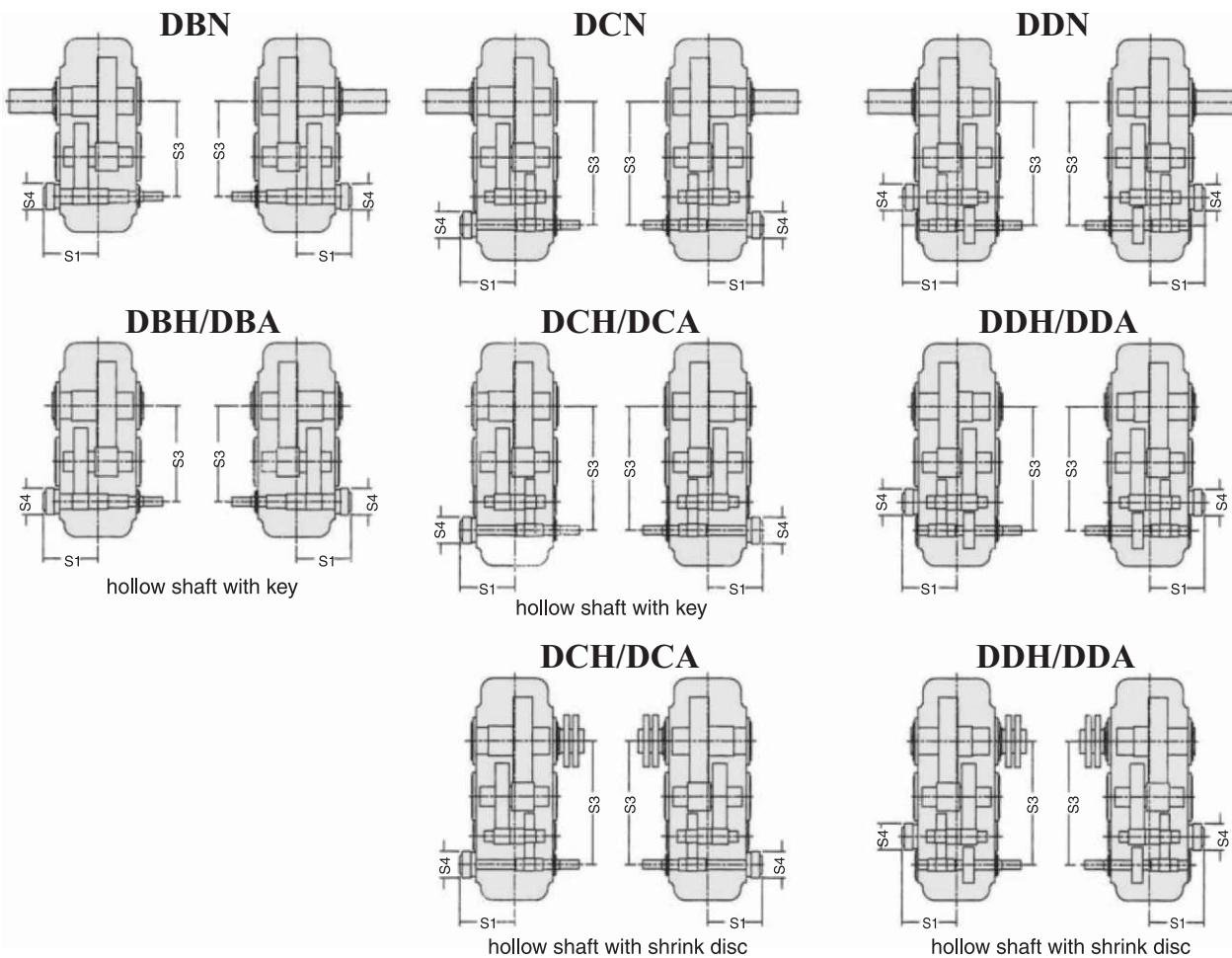
Type of gear unit	Dimensions	Size of gear unit																			
		80	90	100	110	125	140	160	180	200	225	250	280	315	355	400	450	500	560	630	710
RBN / RBH	D	On request	R 1/2"										R 3/4"								On request
	H		37	40	45						60		65		70		80		105		
	x		160	180	195	215	230	250	270	295	325	350	380	425	470	515	570	630			
	y		56	70			100				170				230						
RCN / RCH	D	R 1/2"										R 3/4"								On request	
	H											40	45	60	65	70	80	105			
	x											215	230	250	270	295	325	350	380	425	470
	y											70	100		170			230			

Built-in cooling coils of normal design suitable for fresh water .
(mains and recirculated water and water not chemically polluted)
Sea water and brackish water require cooling coils of special
design.

Maximum permissible pressure of water : 10 bar.
The direction of flow of the water is optional
Contact thermometers and water control valves can also be
offered.

Missing data on request.

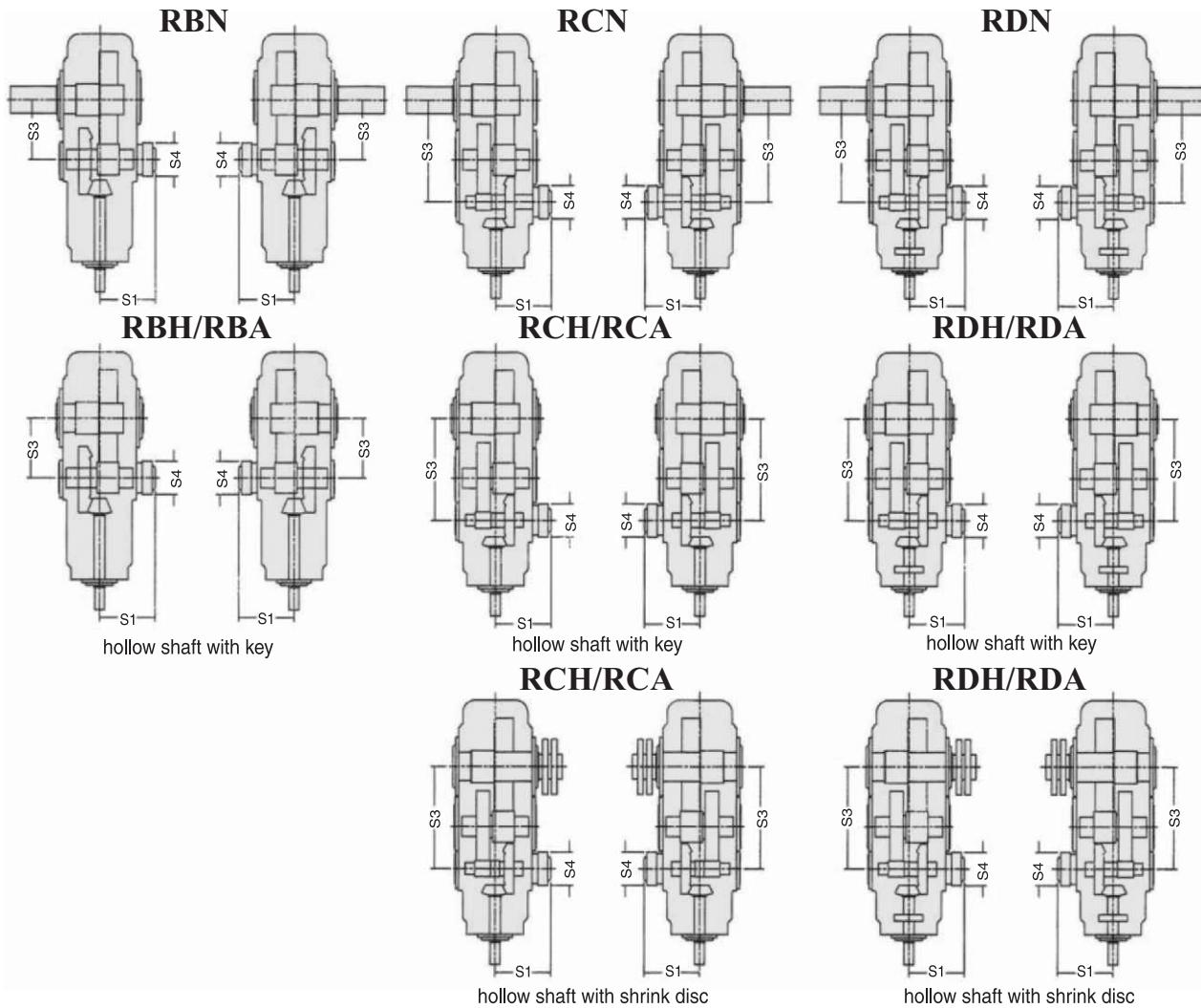
Backstops for
helical gear units



Gear unit types DBN/DBH/DBA					Gear unit types DCN/DCH/DCA					Gear unit types DDN/DDH/DDA								
Gear unit size	Dimensions [mm]				Gear unit size	Dimensions [mm]				Gear unit size	Dimensions [mm]							
	$i_N \leq 10$	$i_N \geq 10$	$i_N \leq 35.5$	$i_N > 35.5$		$i_N \leq 35.5$	$i_N > 35.5$	$i_N \leq 50$	$i_N > 50$		$i_N \leq 180$	$i_N > 180$	$i_N \leq 180$	$i_N > 180$				
110	190	175	105	175	105	160	270	210	105	210	105	225	110	385	255	165	245	165
125	215	190	105	190	105	180	305	220	105	220	105	250	125	430	295	175	280	175
140	240	195	125	195	125	200	340	235	105	235	105	280	140	480	315	200	310	185
160	270	210	135	210	135	225	385	243	132	241	105	315	160	540	340	220	340	220
180	305	220	145	220	145	250	430	266	132	266	132	355	180	605	375	265	375	265
200	340	245	165	235	165	280	480	293	150	281	132	400	200	680	415	285	400	285
225	385	270	175	255	175	315	540	328	175	313	150	450	225	765	455	335	445	335
250	430	300	200	295	185	355	605	348	190	348	175	500	250	855	555	355	555	355
280	480	330	220	315	210	400	680	393	210	376	190	560	280	960	600	410	600	410
315	540	355	230	340	230	450	765	425	210	403	190	630	315	1080	640	420	640	420
355	605	390	265	375	265							710	355	1210	695	480	695	480
400	680	425	290	415	285	500	855	525	245	515	210	800	400	1360	735	520	735	520
450	765	470	320	455	300	560	960	580	290	565	245							
500	855	560	410	535	375	630	1080	620	310	620	290							
560	960	600	420	595	420	710	1210	657	400	665	310							
630	1080	660	430	640	420	800	1360	707	400	705	310							
710	1210	695	480	695	480													
800	1360	805	520	735	520													

Note : Gear unit type DDN, DDH and DDA - the input shaft is situated at a distance of h-h₁ below the joint. (See dimensional drawing DDN/DDH.)

**Backstops for
helical gear units**



Gear unit types RBN/RBH/RBA			Gear unit types RCN/RCH/RCA						Gear unit types RDN/RDH/RDA				
Size of gear unit	Dimensions [mm]			Size of gear unit	S ₃	Dimensions [mm]			Size of gear unit	Dimensions [mm]			
	S ₄	S ₁	S ₃			i _N ≤ 25	S ₄	i _N > 25		S ₃	S ₁	S ₄	
80	105	150	80	110	190	175	105	175	105	160	270	210	125
90	105	160	90	125	215	190	105	190	105	180	305	220	135
100	105	170	100	140	240	195	105	195	105	200	340	235	145
110	125	175	110	160	270	210	125	210	125	225	385	245	165
125	135	190	125	180	305	220	135	220	135	250	430	280	175
140	145	195	140	200	340	235	145	235	145	280	480	310	185
160	165	220	160	225	385	255	165	245	165	315	540	340	220
180	175	245	180	250	430	295	175	280	175	355	605	375	265
200	200	265	200	280	480	315	200	310	185	400	680	400	285
225	220	275	225	315	540	340	220	340	220	450	765	445	335
250	265	315	250	355	605	375	265	375	265	500	855	540	355
280	285	345	280	400	680	415	285	400	285	560	960	575	375
315	335	380	315	450	765	455	335	445	335	630	1080	635	420
355	355	415	355			i _N ≤ 28		i _N > 28		710	1210	675	480
400	410	440	400	500	855	555	355	540	355	800	1360	735	520
450	420	475	450	560	960	600	410	575	375				
500	480	580	500	630	1080	640	420	635	420				
560	520	620	560	710	1210	695	480	675	480				
				800	1360	735	520	735	520				

Backstops for types RBH and RBA with shrink disc on request.

Our Product Range



FCNK Series Worm Gearbox



CH Series Geared Motors



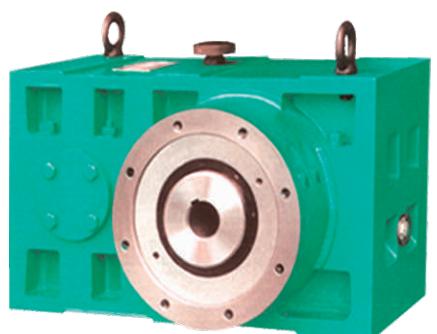
CV Series Geared Motors



SMR Series Shaft Mounted Reducers



FCA Series Worm Gear box



Extruder Gear Box



FCNDK Worm Gearbox



FR Series Speed Reducers



Wire Rope Electric Hoist With Trolley

FACTORY WORKS :

Dharam Power Transmission Equipments Pvt. Ltd.

Add : Plot No. 1492, Industrial Estates, HSIDC, Rai, Sonepat (HR)

Website : www.omexgears.com Email : dharampower@gmail.com

PH. : 0130-6453492, 0130-6531492

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- METAL WORKING
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