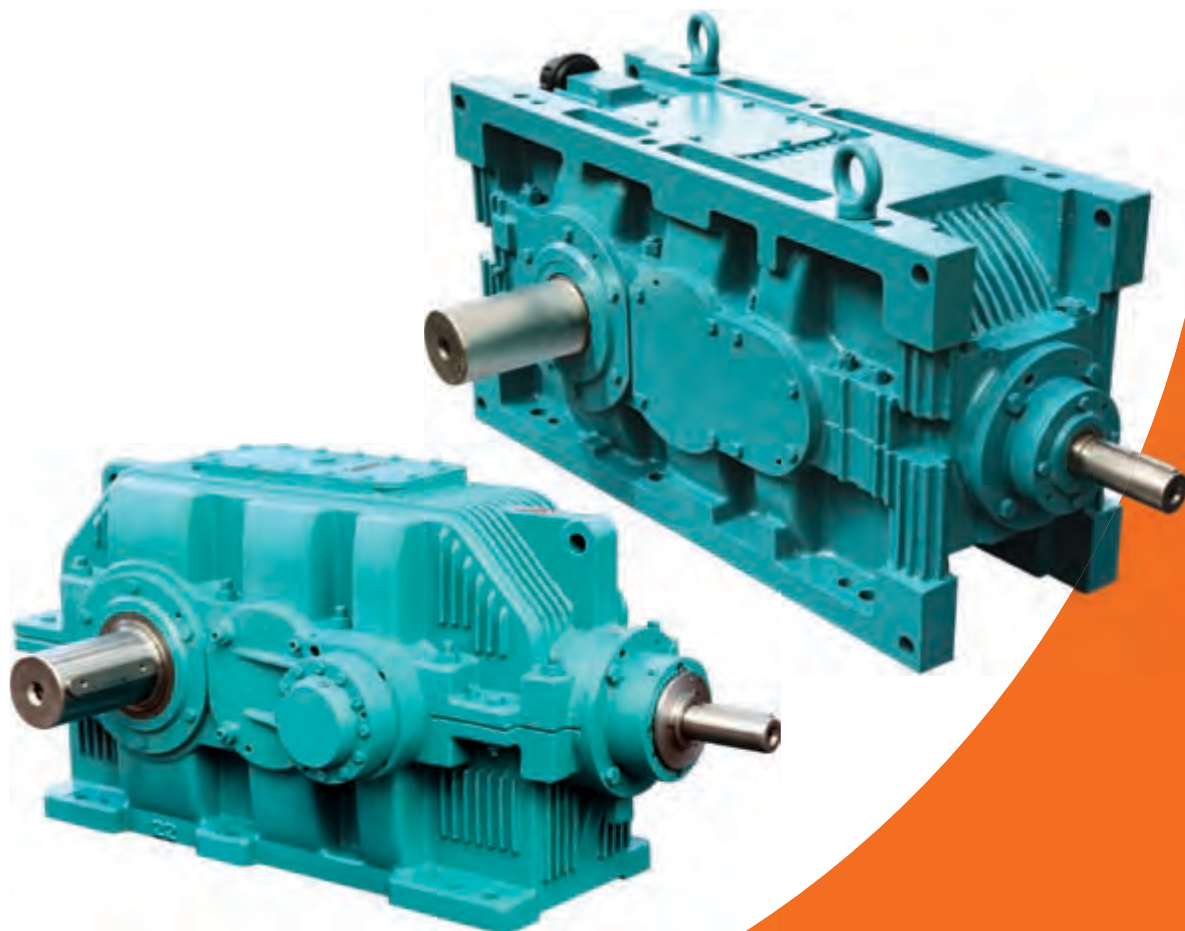


radicon

An Elecon Group Company

E

Series E Industrial Reducer



SERIES E



General Description _____	1
Explanation and use of Ratings and Service Factors _____	4
Selection Procedure _____	7
Nominal Power & Torque Ratings	
Type H & S _____	11
Type B & K _____	14
Dimensions Type H _____	29
Dimensions Type B _____	53
Dimensions Type S _____	77
Dimensions Type K _____	91
Shaft Arrangements Type H & S _____	103
Shaft Arrangements Type B & K _____	109
Output Shaft Options _____	120
Alternative Configurations _____	122
Hollow Output Shaft with Fitted Key _____	123
Hollow Output Shaft with Shrink Disk _____	124
Output Shaft External Loads _____	126
Shaft Extension Details _____	127
Cooling Coil _____	128
GD Square Values - Type H & S _____	129
GD Square Values - Type B & K _____	130

SERIES E

GENERAL DESCRIPTION

E

Series E Industrial Reducers are proven to be the optimum solution for drive requirements in the market. The Series E Industrial gear unit is designed to meet the requirements of the most demanding applications in the medium and heavy duty sectors of the power transmission market. The modern design and construction of the Series E offers many engineering and performance benefits including higher torque and thermal ratings, with a high degree of interchangeability of components. The gear housing has been designed to withstand the normal forces while reducing weight to the ideal level leading to the most optimal industrial gear unit solution available.

The series E has been designed using the latest software, with a tooth geometry which combines maximum efficiency with high load carrying capacity and minimal noise generation. Serviceability was at the forefront of our thoughts in the design guaranteeing durability, reliability and minimal downtime.

Unit Sizes

11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26

Types

Parallel Shaft: Single, Double, Triple and Quadruple Reduction

Right Angle Shaft: Double, Triple and Quadruple Reduction

Input Power

Up to 6,470HP

Output Torque

Up to 1,168,200 In-lbs

Gear Ratios

1.25/1 to 560/1 in multistage

Single Reduction Parallel Shaft S1/H1 i = 1.25 to 5	Double Reduction Right Angle Shaft K2/B2 i = 5 to 22.4
Double Reduction Parallel Shaft S2/H2 i = 5.6 to 22.4	Triple Reduction Right Angle Shaft K3/B3 i = 20 to 100
Triple Reduction Parallel Shaft S3/H3 i = 20 to 112	Quadruple Reduction Right Angle Shaft K4/B4 i = 80 to 560
Quadruple Reduction Parallel Shaft S4/H4 i = 90 to 560	

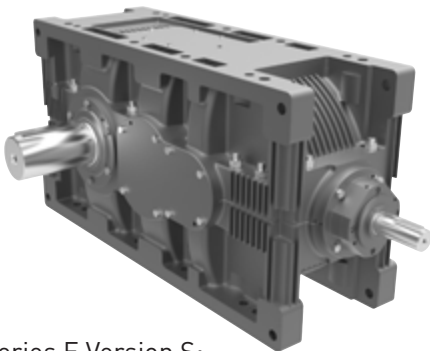
Efficiencies:

- 99 % for single reduction helical gearboxes
- 98 % for double reduction helical gearboxes
- 97.5% for triple reduction helical gearboxes
- 97% for quadruple reduction helical gearboxes
- 97.5% for double reduction bevel helical gearboxes
- 97% for triple reduction bevel helical gearboxes
- 96.5% for quadruple reduction bevel helical gearboxes

Available with dedicated foot mounted case Version N, which gives the optimum torque/kg, or with multimount case Version S giving flexibility on mounting options.



Series E Version N:
Horizontal Mounting Applications



Series E Version S:
Multimount Applications

GENERAL DESCRIPTION

Design Features

Shaft Mounted Units

Shaft mounted units can be mounted on the driven machine shaft extension and connected to the foundation by a torque arm, supplied as an optional extra.

Additionally, unit feet are available for mounting on a baseplate with motor and coupling, the complete assembly being mounted on the driven machine shaft extension and connected to the foundation by a torque arm.

Shaft mounted units are fitted with a 'shrink Disk' device to provide positive clamping on the driven machine shaft extension.

Shaft mounted units with keyed sleeves may also be supplied for fitting on to a keyed shaft.

Motorised Gear Units

Gear units are available as standard assemblies comprising IEC standard metric (B5) flanged and NEMA 'C' motors directly mounted on the gearcase input shaft housings by adaptors. Motor and gear unit shafts are connected by flexible couplings.

Baseplates

Standard baseplates can be supplied for units with parallel or right angle shafts. Assemblies comprise of gear units and foot mounted motors correctly aligned in manufacture and connected by our couplings. Coupling guards are fitted.

Baseplates for right angle shaft gear units are designed for use with either foot or shaft mounted arrangements, and provision is made for attaching torque arms where required.

Designs provide ample stiffness to prevent distortion under load. Full details are available from our Application Engineers.

Backstops

Externally mounted Backstops can be fitted to all Series E gear units, when required to operate in non-reversing drives. They are located on the helical pinion shaft and have adequate capacities to deal with full rated torques. All backstops are centrifugal lift off type. Changing the direction of locking rotation is a simple operation. If required, a torque limiting backstop with controllable tension release can be fitted to all units (consult our Application Engineers).

Preservation / Protection

Series E gear units are despatched without oil.

Prior to despatch they are test run with a rust preventative oil giving adequate protection to internal parts for a period of six months covering normal transport and covered storage.

Shaft extensions and hollow output shafts are protected with a rust inhibitor which is proof against sea water and suitable for under-cover storage up to 12 months.

Note: Where gear units are to operate in abnormal conditions, or where they are to stand for long periods without running, eg in plant installation, we must be notified so that suitable protective arrangements can be made.

Gears

High quality alloy case hardening materials provide long life wear resistance and fatigue strength.

Profile ground single helical gears and hard finished spiral bevel gears ensure high standards of accuracy, surface finish and quiet running characteristics. Helical gears are fitted in parallel shaft units. Units with shafts at right angles incorporate spiral bevel and helical gears.

Gearcases

Standard gearcases are of rigid cast iron construction with modern styling, special cases can be supplied as SG iron or fabricated steel.

Horizontal split case design for ease of maintenance.

Gearcase design using finite element analysis to give high strength to weight ratio.

Inspection cover provided for viewing gear contacts.

Oil level dipstick, ventilator and drain plugs are fitted.

With an option to fit an oil level sight glass.

Gearcase Finish

Gearcase housings are shot blasted to SA 2-1/2 (or better) prior to painting.

Standard Paint System - Short oil alkyd resin/pigment semi-gloss, Colour: - RAL 5009 (Blue).

Optional Paint System for Extreme Climatic and Environmental Conditions - Two Part epoxy acrylic semi-gloss finish, Colour: - RAL 5009 (Blue).

Both paint systems are resistant to dilute acids and alkalis, oils and solvents, sea water and temperatures up to 140 Deg C.

External Dimensions

Shaft extensions and hollow wheelshaft bores are to metric standards. Fasteners are metric.

Lubrication

Lubrication in most instances is by the transfer of oil by gears dipping in the sumps of gear unit bases. Where high pitch line speeds could cause churning of the lubricant. Spray lubrication is necessary where shown and complete systems can be supplied when required.

The unit oil grade and change period will be stamped on the nameplate. Units are provided with a dipstick, ventilator and drain plugs.

Cooling

Depending on the application standard gear units are cooled by:

Normal heat dissipation by convection from external surfaces.

Mechanical fan fitted to high speed shaft.

Cooling water coil fitted in gear unit base.

Fan and cooling coil.

Separate oil cooler incorporated in forced lubrication system.

As improvements in design are being made continually this specification is not to be regarded as binding in detail and drawings and capacities are subject to alteration without notice. Certified drawings will be sent on request.

SERIES E

GENERAL DESCRIPTION

E

H 3 20 H N 1 A 0 0 0 3 1 5 R L

Shaft Arrangement eg.

R	L		
---	---	--	--

L	R	L	etc
---	---	---	-----

Nominal Ratio multiplied by 10

0	3	1	5
0	0	1	2
2	8	0	0

 etc

Type of Lubrication
0 - Splash Lubrication
3 - Forced Lubrication
9 - Special

Type of Cooling
0 - None
1 - Fan Cooled
3 - Cooling Coil
4 - Fan + Cooling Coil
9 - Special

Backstop
A - No Backstop
B - Backstop

Type of Gear Case
1 - Cast Iron Gear Case
2 - SG Iron Gear Case
3 - Fabricated Steel Gear Case

Type of Output Shaft
N - Solid Shaft with Key F - Flanged Shaft
K - Hollow Shaft with Keyway D - Hollow Shaft with Shrink Disk

Gear Unit Mounting
H - Horizontal
V - Vertical

Gear Unit Size

1	1
---	---

2	6
---	---

Number of Reduction Stages
1 - Single Stage
2 - Two Stages
3 - Three Stages
4 - Four Stages

Gear Unit Type
H - Helical (Multi-Mount Case)
B - Bevel-Helical (Multi-Mount Case)
S - Helical (Horizontal Foot Mounted Case)
K - Bevel-Helical (Horizontal Foot Mounted Case)

EXPLANATION AND USE OF RATINGS AND ASSOCIATED RATING FACTORS

Gear unit selection is made by comparing actual loading with the Catalog ratings.

Catalog ratings are based on a standard set of loading conditions, whereas actual loading conditions will vary according to the type of application.

Service factors are used to calculate an equivalent load to compare with the Catalog ratings.

Both Mechanical and Thermal Capacities must be considered.

Mechanical Ratings

Mechanical ratings measure the gear unit's capacity in terms of life and strength, assuming 10 hours per day continuous operation under uniform loading conditions.

Catalog ratings allow for 100% overload at starting, braking or momentarily during operation up to 10 times per day.

The Mechanical Service Factor F_m (table 1) is used to modify the actual load according to the daily operating time, and the type of loading.

The required Mechanical Rating P (mech) = Absorbed Power $\times F_m$

The load characteristics for a wide range of applications are listed in the Load Classification by Application (Table 3)

The load classification is used to determine the appropriate Service Factor F_m (table 1)

Gear units subjected to torque reversals or frequent stop/start overloads require the following check to be made:

Gear Unit Nominal Power Rating (HP) > $\frac{T_m \times F_s \times n}{2 \times 9550}$

$$2 \times 9550$$

T_m = Motor starting torque (In-lbs) or rating of torque limiting device, fluid coupling etc...

n = Input speed (rpm)

F_s = Starting Frequency Factor

For applications where high inertia loads are involved, e.g. crane travel drives, slewing motion etc. or when units are to operate in extremely dusty or humid environments, the unit selection should be referred to our Application Engineers.

Table 1. Mechanical Service Factor (F_m)

Prime Mover	Operating Hours/day	Load Classification			
		Uniform	Moderate	Heavy	Extra Heavy
		U	M	H	X
"Electric Motor Steam Turbine Hydraulic Motor"	< 3	1.00	1.00	1.50	2.00
	3 to 10	1.00	1.25	1.75	2.25
	> 10	1.25	1.50	2.00	2.50
"4 to 6 Cylinder Internal Combustion Engine"	< 3	1.00	1.25	1.75	2.25
	3 to 10	1.25	1.50	2.00	2.50
	> 10	1.50	1.75	2.25	2.75
"1 to 3 Cylinder Internal Combustion Engine"	< 3	1.25	1.50	2.00	2.50
	3 to 10	1.50	1.75	2.25	2.75
	> 10	1.75	2.00	2.50	3.00

F_m	Starts / Stops per hour						
	1	2 - 20	21 - 40	41 - 80	81 - 160	161 - 320	> 320
1.00	1.00	1.20	1.30	1.50	1.60	2.00	2.50
1.25	1.00	1.10	1.20	1.35	1.45	1.80	2.20
1.50	1.00	1.17	1.15	1.20	1.30	1.65	2.00
1.75	1.00	1.15	1.16	1.18	1.20	1.50	1.90
2.00	1.00	1.06	1.08	1.10	1.15	1.40	1.75
2.25	1.00	1.03	1.06	1.07	1.10	1.30	1.60
2.50	1.00	1.00	1.03	1.05	1.07	1.25	1.50
2.75	1.00	1.00	1.00	1.00	1.05	1.20	1.45
3.00	1.00	1.00	1.00	1.00	1.00	1.15	1.40

For Reversing Duty $F_s = 1.4$ minimum

EXPLANATION AND USE OF RATINGS AND ASSOCIATED RATING FACTORS

Table 3. Load Classification by Application

U Uniform Load **M** Moderate Shock Load **H** Heavy Shock Load **X** Extra Heavy Shock Load **†** Consult Our Engineers

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

EXPLANATION AND USE OF RATINGS AND ASSOCIATED RATING FACTORS

Thermal Capacity Ratings

The thermal capacities are a measure of the gear units capacity to dissipate heat, if the thermal capacity is exceeded the lubricant may overheat and breakdown causing premature gear unit failure.

Thermal capacities are given on the gear unit ratings pages, cooling systems may be utilised as follows:

- Unit with no additional cooling
- Unit with fan cooling
- Unit with water cooling coil
- Unit with fan and water cooling coil

The Catalog Thermal Capacities are based on the unit operating continuously in an environment ambient of 20°C.

The actual thermal capacity is affected by ambient temperature, duration of running per hour, the operating environment and altitude. To account for these varying conditions the service factors given in tables 4, 5 and 6 should be applied.

Check: Thermal Capacity Rating $P1 \geq P_{\text{therm}}$

$$P_{\text{therm}} = \frac{\text{Absorbed Power (HP)}}{F_t \times F_d \times F_v}$$

P_{therm} = The required thermal rating (HP)

$P1$ = Thermal capacity rating (HP)

F_t = Service factor for ambient temperature (table 4)

F_h = Service factor for operating altitude (table 5)

F_v = Service factor for operating environment (table 6)

When checking thermal capacities, use the actual load requirement and not the rating of the prime mover.

Table 4. Ambient Temperature Factor (F_t)

Cooling Type	Ambient	Duration of Operation / Hour				
		100%	80%	60%	40%	20%
No Ad- ditional Cooling	-20°C	1.49	1.79	2.09	2.39	2.68
	-10°C	1.37	1.64	1.92	2.19	2.46
	0°C	1.25	1.49	1.74	1.99	2.24
	10°C	1.12	1.34	1.57	1.79	2.02
	20°C	1.00	1.20	1.40	1.60	1.80
	30°C	0.88	1.06	1.23	1.41	1.58
	40°C	0.75	0.90	1.05	1.20	1.35
	50°C	0.63	0.76	0.88	1.01	1.13
Fan Cooling	-20°C	1.46	1.75	2.04	2.34	2.63
	-10°C	1.35	1.62	1.89	2.16	2.43
	0°C	1.24	1.49	1.74	1.98	2.23
	10°C	1.15	1.38	1.61	1.84	2.07
	20°C	1.00	1.20	1.40	1.60	1.80
	30°C	0.90	1.08	1.26	1.44	1.62
	40°C	0.80	0.96	1.12	1.28	1.44
	50°C	0.70	0.84	0.98	1.12	1.26
Cooling Coil	-20°C	1.15	1.38	1.61	1.84	2.07
	-10°C	1.15	1.38	1.61	1.84	2.07
	0°C	1.15	1.38	1.61	1.84	2.07
	10°C	1.10	1.32	1.54	1.76	1.98
	20°C	1.00	1.20	1.40	1.60	1.80
	30°C	0.90	1.08	1.26	1.44	1.62
	40°C	0.85	1.02	1.19	1.36	1.53
	50°C	0.80	0.96	1.12	1.28	1.44
Fan Cooling and Cooling Coil	-20°C	1.19	1.42	1.66	1.90	2.13
	-10°C	1.19	1.42	1.66	1.90	2.13
	0°C	1.19	1.42	1.66	1.90	2.13
	10°C	1.12	1.34	1.57	1.79	2.02
	20°C	1.00	1.20	1.40	1.60	1.80
	30°C	0.92	1.10	1.29	1.47	1.66
	40°C	0.83	1.00	1.16	1.33	1.49
	50°C	0.78	0.94	1.09	1.25	1.40

Table 5.

Altitude Adjustment Factor (F_h)

Altitude (m)	Factor F_h
Sea Level	1.00
500	0.97
1000	0.93
1500	0.90
2000	0.87
3000	0.81

Table 6.

Air Velocity Correction Factor (F_v)

Operating Environment	Without Fan	Fan Cooled
Small Confined Space	0.86	1.00
Large Indoor Space	1.00	1.00
Sheltered Outdoor Space	1.30	1.00
Open Outdoor Space	1.50	1.00

EXAMPLE

Absorbed Power of Driven machine	=	70 HP
Output Speed	=	57 rpm
Application	=	Uniformly Loaded Belt Conveyor
Duration of Service	=	24 hours/day
Input Speed	=	1450 rpm (electric motor)
Unit type	=	Right Angle Shaft
Running Time/hour	=	100%
Operating Altitude	=	Sea level
Ambient Temperature	=	30°C
Operating Environment	=	Large Indoor Space

1. DETERMINE REQUIRED RATIO

$$25.43 = \frac{\text{Input speed } 1450 \text{ rpm}}{\text{Output speed } 57 \text{ rpm}}$$

The nearest nominal transmission ratio (in) = 25

2. DETERMINE THE MECHANICAL SERVICE FACTOR (Fm)

Refer to Load Classification by Application (table 3)

Uniformly Loaded Belt Conveyor Load Classification = U

Refer to Mechanical Service Factor (Fm) (table 1)

For Electric Motor driven, Uniform Loading, Operating over 10 hours/day

Prime Mover	Operating Hours/day	Load Classification			
		Uni-form	Moderate	Heavy	Extra Heavy
		U	M	H	X
Electric Motor	< 3	1.00	1.00	1.50	2.00
Steam Turbine	3 - 10	1.00	1.25	1.75	2.25
Hydraulic Motor	> 10	1.25	1.50	2.00	2.50

The Mechanical Service Factor Fm = 1.25

3. DETERMINE THE STARTING FREQUENCY FACTOR (Fs)

Refer to Starting Frequency Factor (Fs) (table 2)

Fm	Starts / Stops per hour						
	1	2 - 20	21 - 40	41 - 80	81 - 160	161 - 320	> 320
1.0	1.00	1.20	1.30	1.50	1.60	2.00	2.50
1.25	1.00	1.10	1.20	1.35	1.45	1.80	2.20
1.5	1.00	1.17	1.15	1.20	1.30	1.65	2.00

For Fm = 1.25 with < 10 starts/ day, The Starting Frequency Factor Fs = 1.00

4. DETERMINE REQUIRED MECHANICAL CAPACITY (kW)

Required Mechanical Rating (P mech) = Absorbed Power (HP) x Factor Fm x Factor Fs

$$P_{\text{mech}} = 70 \times 1.25 \times 1.00 = 87.5 \text{ HP}$$

5. DETERMINE THE SIZE OF GEARBOX

Check: Nominal Power Rating $\geq$ P mech

Refer to: Nominal Power Ratings - Unit type K3 (Bevel Helical-Triple Stage)

i _n	n ₁	N ₂	Gear Unit Size					
			18	19	20	21	22	23
25	1500	60	55	78	104	144	200*	259*
	1000	40	38	53	69	100	138	173
	750	30	29	40	52	75	106	130

P mech = 87.5 HP
size K3-20 unit has a power rating > P mech (104 HP)

Go to point 6

SELECTION PROCEDURE

E

6. DETERMINE THE ACTUAL RATIO OF THE GEARBOX

Refer to the Actual Ratio table:

Type	i _n	Gear Unit Size						
		18	19	20	21	22	23	24
K3	25	24.07	25.07	26.31	23.8	24.76	26.13	24.58
	28	27.22	27.86	29.47	27.22	27.86	29.11	27.53

$$n_1 = 1450$$

$$n_2 = 1450 / 26.31 = 55.1 \text{ rpm}$$

7. DETERMINE THE THERMAL RATING

Refer to the Thermal Capacity Ratings

in	n1	Gear Unit Size						
		18	19	20	21	22	23	24
		Thermal Capacity P1 (HP) for gear unit without cooling						
20 - 35	1500	64	81	106	128	166	195	254
	1000	61	75	95	125	150	166	239
	750	56	69	87	119	148	158	229

$$\text{Thermal Capacity (P1)} = 106 \text{ HP}$$

8. DETERMINE THE AMBIENT TEMPERATURE FACTOR (Ft)

Refer to Ambient Temperature Factor (Ft) (table 4)

Cooling Type	Ambient	Duration of Operation / Hour		
		100%	80%	60%
No Ad-ditional Cooling	-20°C	1.49	1.79	2.09
	-10°C	1.37	1.64	1.92
	0°C	1.25	1.49	1.74
	10°C	1.12	1.34	1.57
	20°C	1.00	1.20	1.40
	30°C	0.88	1.06	1.23
	40°C	0.75	0.90	1.05
	50°C	0.63	0.76	0.88

$$\text{Ambient Temperature Factor (Ft)} = 0.88$$

9. DETERMINE THE ALTITUDE ADJUSTMENT FACTOR (Fh)

Refer to Altitude Adjustment Factor (Fh) (table 5)

Altitude (m)	Factor Fh
Sea Level	1.00
500	0.97
1000	0.93
1500	0.90
2000	0.87
3000	0.81

$$\text{Altitude Adjustment Factor (Fh)} = 1.00$$

10. DETERMINE THE AIR VELOCITY CORRECTION FACTOR (Fv)

Refer to Air Velocity Correction Factor (Fv) (table 6)

Operating Environment	Without Fan	Fan Cooled
Small Confined Space	0.86	1.00
Large Indoor Space	1.00	1.00
Sheltered Outdoor Space	1.30	1.00
Open Outdoor Space	1.50	1.00

$$\text{Air Velocity Correction Factor (Fv)} = 1.00$$

11. CALCULATE THE REQUIRED THERMAL CAPACITY (P therm)

Refer to Air Velocity Correction Factor (Fv) (table 6)

$$P_{\text{therm}} = \frac{\text{Absorbed Power (HP)}}{F_t \times F_h \times F_v}$$

$$P_{\text{therm}} = \frac{70 \text{ HP}}{0.88 \times 1.00 \times 1.00}$$

$$P_{\text{therm}} = 79.5 \text{ HP}$$

12. CHECK THE UNIT THERMAL CAPACITY

Check: Thermal Capacity P1 ≥ P therm

$$P_1 = 106 \text{ HP}$$

$$P_{\text{therm}} = 79.5 \text{ HP}$$

Note! It advisable that all selections are verified by our application engineers

If any of the following occur then our application engineers must be consulted:

- The unit shafts are subjected to external overhung loads
- The ambient temperature exceeds 50°C
- If the inertia of the driven machine (referred to the motor shaft) exceeds the inertia of the gear unit and motor

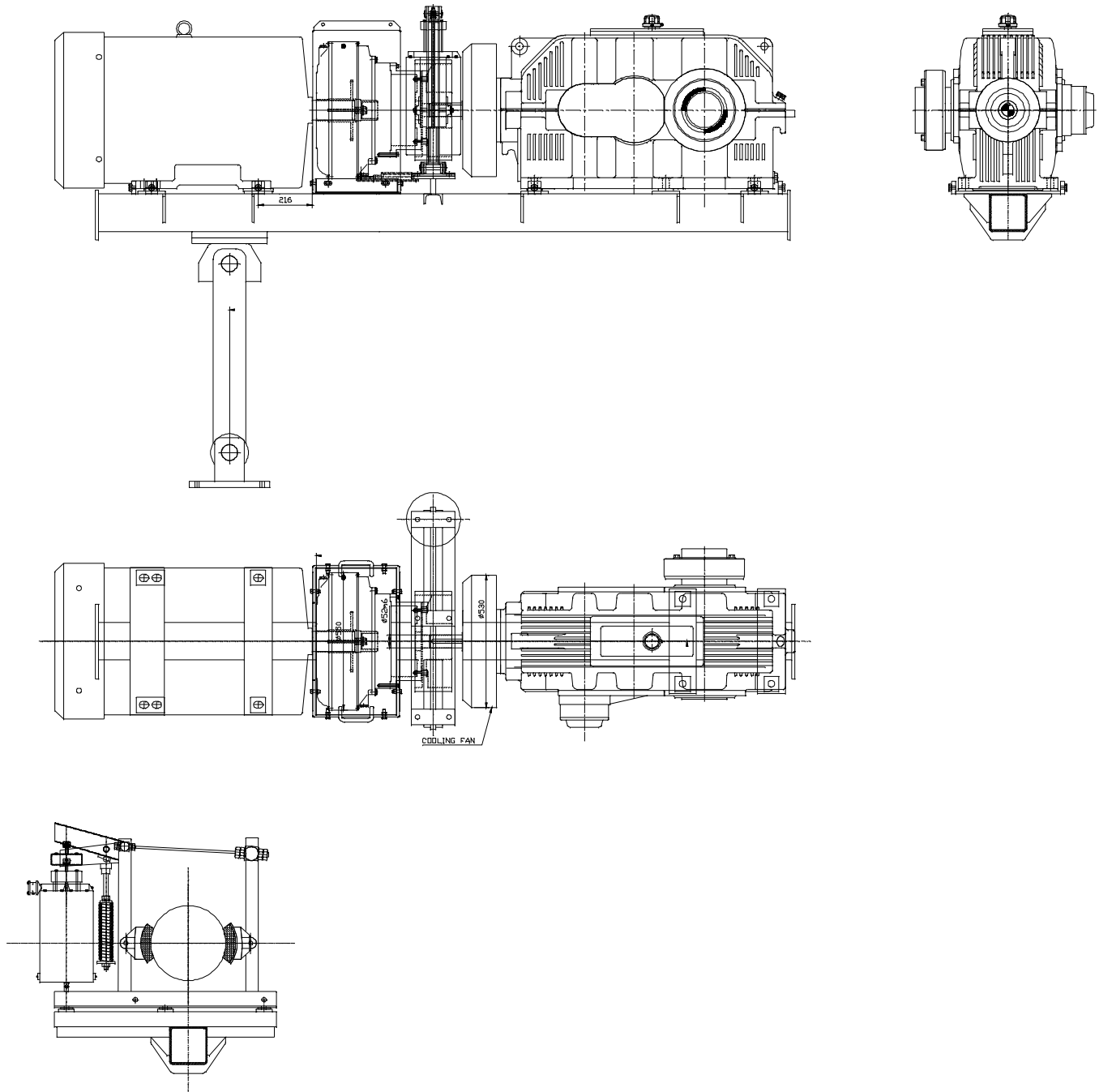
SERIES E

Radicon Complete Drive Options

Type EON – Horizontal Mounting Applications

E

Radicon Offers complete drive including Hollow shaft with shrink disk, Swing base, fluid coupling, brake and torque arm



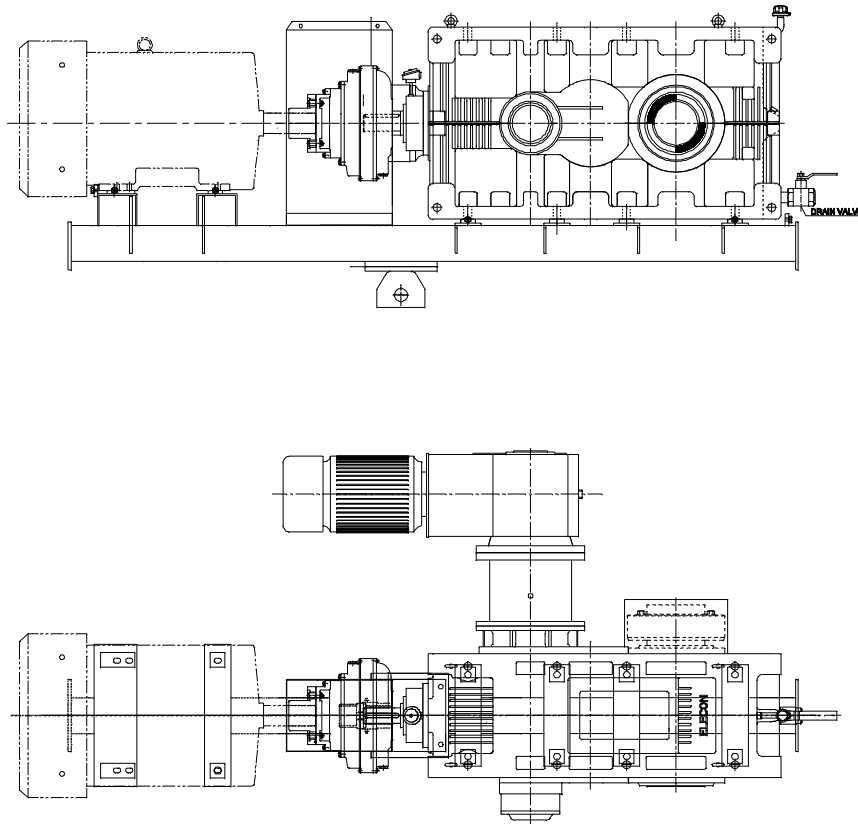
Elecon Thruster Brake

Radicon Complete Drive Options

Type EOS - Multimount Applications

Radicon Offers complete drive including Hollow shaft with shrink disk, Inching drive (Auxiliary drive), fluid coupling and torque arm

E



SERIES E

NOMINAL POWER RATING (HP) - HELICAL - SINGLE STAGE

TYPE H1/S1

E

i _N	n1	n2	Gear unit Size											
			11	13	15	17	18	20	21	22	23	24	25	26
1.25	1800	1440	135	275	513	932	1163	2214	3242	4141				
	1500	1200	112	229	428	777	969	1845	2702	3451				
	1000	800	75	153	285	518	646	1230	1801	2301				
	750	600	56	115	214	388	485	922	1351	1725				
1.4	1800	1286	120	246	458	832	1038	1977	2895	3697				
	1500	1071	100	205	382	693	865	1647	2412	3081				
	1000	714	67	137	255	462	577	1098	1608	2054				
	750	536	50	102	191	347	433	824	1206	1541				
1.6	1800	1125	99	190	329	589	754	1432	2137	2917	4015			
	1500	938	84	163	285	511	654	1240	1844	2514	3436			
	1000	625	60	119	218	386	486	922	1341	1844	2431	3520	4677	
	750	469	47	94	176	318	402	763	1106	1509	1978	2615	3822	
1.8	1800	1000	89	179	310	561	686	1336	1940	2850	3940			
	1500	833	75	153	268	486	595	1157	1676	2347	3353			
	1000	556	54	111	201	369	444	872	1257	1257	2347	3017	4392	6470
	750	417	42	87	164	302	369	712	1023	1023	1877	2431	3587	5280
2	1800	900	75	156	292	523	656	1218	1840	2533	3545			
	1500	750	64	132	251	453	570	1056	1592	2179	3017			
	1000	500	45	96	184	335	419	796	1173	1576	2179	2816	4191	6085
	750	375	35	74	149	277	352	654	972	1291	1710	2297	3336	4979
2.24	1800	804	73	135	262	483	601	1161	1733	2321	3223			
	1500	670	62	114	226	419	520	1006	1492	2012	2766			
	1000	446	44	80	168	318	394	754	1090	1509	2012	2682	3855	5632
	750	335	34	62	137	260	318	620	888	1240	1626	2112	3051	4610
2.5	1800	720	59	112	242	446	561	1067	1592	2134	2921	4015		
	1500	600	50	96	210	386	486	922	1375	1844	2514	3436		
	1000	400	35	69	159	285	369	687	1039	1375	1877	2431	3520	5163
	750	300	28	54	129	235	302	562	838	1123	1509	1978	2883	4224
2.8	1800	643	53	95	228	406	512	959	1452	1940	2619	3620		
	1500	536	45	80	193	352	444	830	1257	1676	2263	3101		
	1000	357	32	57	134	268	335	629	939	1257	1676	2196	3202	4844
	750	268	25	45	104	218	277	511	771	1023	1375	1794	2615	3956
3.15	1800	571	45	93	182	373	463	890	1323	1778	2431	3231	4491	6781
	1500	476	39	79	153	318	402	771	1140	1542	2095	2766	3889	5867
	1000	317	27	55	104	235	302	587	855	1157	1542	2012	2933	4425
	750	238	22	44	79	184	251	478	687	955	1257	1609	2397	3604
3.55	1800	507	40	85	185	367	463	898	1343	1781	2437	2924	4263	6252
	1500	433	34	72	154	310	402	771	1140	1542	2079	2531	3688	5414
	1000	282	23	52	106	218	302	587	821	1056	1509	1911	2783	4073
	750	211	18	40	79	168	251	461	637	922	1190	1559	2263	3336
4	1800	450	33	70	149	321	407	906	1265	1664	2442	2615	3857	5623
	1500	375	28	59	126	268	344	771	1073	1425	2062	2263	3336	4911
	1000	250	19	42	89	176	235	587	763	1006	1475	1710	2514	3688
	750	188	14	32	67	136	184	444	595	821	1123	1391	2045	3123
4.5	1800	400	28	61	107	275	388	749	1070	1549	2213	2397	3518	5070
	1500	333	24	52	91	230	327	629	905	1307	1861	2079	2967	4291
	1000	222	16	37	65	154	235	427	637	953	1319	1576	2062	3001
	750	167	12	28	50	116	176	327	495	717	992	1291	1592	2347
5	1800	360	25	53	99	235	277	725	942	1333	1870	2144	3215	4897
	1500	300	21	45	84	196	235	605	796	1123	1560	1861	2783	4140
	1000	200	14	32	60	132	164	408	570	796	1046	1408	2095	2933
	750	150	11	25	47	99	129	307	436	603	787	1157	1710	2263

*Requires forced feed lubrication.

Thermal Capacity (HP)

TYPE H1/S1

Nominal Transmission Ratio i_n	n1	Gear unit Size											
		11	13	15	17	18	20	21	22	23	24	25	26
		Thermal Capacity P1 (HP) for gear unit without cooling											
1.25 to 2.8	1800	41	65	104	162	202	304	387	476	602			
	1500	39	62	99	154	193	293	377	469	595			
	1000	35	57	91	146	188	280	365	461	587	738	905	1153
	750	34	54	85	136	173	268	354	453	578	721	888	1086
3.15 to 5	1800	33	59	93	140	182	283	383	475	597	755	962	1189
	1500	30	52	85	137	171	268	369	453	578	738	939	1157
	1000	27	49	75	132	158	253	352	436	562	712	897	1090
	750	23	37	67	131	144	235	335	402	536	696	880	1073
Thermal Capacity P2 (HP) for gear unit with fan cooling													
1.25 to 2.8	1800	79	119	189	290	359	554	728	911	1149			
	1500	70	109	171	265	335	520	671	838	1073			
	1000	59	92	142	221	302	469	545	707	939	1157	1442	1797
	750	50	84	126	201	277	436	520	654	880	1056	1358	1717
3.15 to 5	1800	73	116	173	283	355	539	697	877	1126	1441	1787	2244
	1500	64	101	154	255	318	503	634	796	1031	1316	1643	2087
	1000	47	72	126	205	251	402	536	696	880	1148	1400	1760
	750	40	62	109	184	226	402	478	603	796	1014	1282	1676
Thermal Capacity P3 (HP) for gear unit with cooling coil													
1.25 to 5	1800	173	244	367	498	567	801	943	1096	1293	1574		
	1500	169	241	355	484	562	788	930	1090	1282	1549		
	1000	161	236	342	478	557	766	910	1078	1274	1525	1794	1904
	750	159	235	329	454	550	754	898	1073	1257	1492	1777	1864
Thermal Capacity P4 (HP) for gear unit with fan and cooling coil													
1.25 to 5	1800	205	300	462	665	790	1161	1441	1738	2131	2491		
	1500	195	289	438	632	763	1121	1385	1678	2065	2427		
	1000	178	270	402	591	732	1061	1274	1572	1960	2394	2898	3286
	750	170	260	378	554	699	1021	1240	1525	1901	2288	2816	3118

SERIES E

NOMINAL POWER RATING (HP) - HELICAL - DOUBLE STAGE

TYPE H2/S2

E

i _n	n1	n2	Gear unit Size												
			14	15	16	17	18	19	20	21	22	23	24	25	
5.6	1800	321	86	124	180	218	364	512	743	992	1335	1523	2464	3731	5197
	1500	268	72	104	150	182	303	426	619	827	1112	1316	2075	3109	4331
	1000	179	48	69	100	122	202	284	413	551	742	1003	1492	2073	2887
	750	134	36	52	76	92	152	213	309	414	556	809	1119	1555	2166
6.3	1800	286	72	106	137	197	305	408	583	751	1040	1391	2192	2803	3969
	1500	238	60	87	115	164	253	344	497	645	888	1204	1848	2431	3386
	1000	159	40	59	77	110	174	243	375	488	671	914	1341	1844	2646
	750	119	30	42	58	83	124	184	287	386	520	741	1006	1509	1991
7.1	1800	254	70	101	122	175	294	391	585	751	969	1332	2050	2643	3934
	1500	211	58	84	102	146	244	327	488	637	821	1127	1726	2263	3312
	1000	141	39	56	68	97	162	226	330	445	612	836	1207	1676	2372
	750	106	29	40	51	73	119	168	248	352	461	628	922	1324	1783
8	1800	225	61	93	112	154	260	375	533	696	933	1221	1816	2584	3631
	1500	188	51	77	93	128	218	314	445	587	784	1027	1542	2179	3051
	1000	125	34	52	62	86	148	210	299	427	562	729	1140	1592	2155
	750	94	26	37	47	64	113	160	225	318	419	548	872	1190	1620
9	1800	200	57	84	101	137	260	370	468	636	890	1126	1592	2146	3097
	1500	167	47	70	84	114	218	310	392	536	754	948	1375	1844	2615
	1000	111	32	47	56	76	144	210	273	360	503	679	1039	1341	1912
	750	83	24	34	42	58	112	159	205	285	408	510	838	1090	1437
10	1800	180	49	74	90	126	211	297	422	578	770	1052	1503	2062	2955
	1500	150	41	61	75	105	174	251	352	488	654	877	1274	1760	2476
	1000	100	27	42	50	70	119	166	235	327	444	586	905	1257	1710
	750	75	20	30	38	53	84	134	177	260	360	440	704	1006	1285
11.2	1800	161	45	67	80	114	199	280	375	523	683	981	1329	1787	2599
	1500	134	38	56	66	95	166	235	314	436	575	818	1140	1509	2179
	1000	89	25	37	44	64	113	159	217	293	411	547	838	1140	1516
	750	67	19	27	33	48	82	121	163	218	310	411	671	838	1139
12.5	1800	144	40	61	71	99	167	230	345	466	672	855	1284	1697	2455
	1500	120	34	51	59	83	139	192	287	392	558	713	1073	1425	2047
	1000	80	22	33	40	55	91	134	192	277	384	476	754	1006	1369
	750	60	17	25	30	42	70	97	144	210	277	358	553	754	1028
14	1800	129	36	55	64	87	143	210	314	428	588	738	1101	1385	1962
	1500	107	30	45	53	73	119	174	261	357	488	615	922	1190	1656
	1000	71	20	30	36	49	80	122	176	253	340	411	671	872	1211
	750	54	15	22	27	36	59	87	131	184	243	308	486	704	909
16	1800	113	31	46	58	79	125	188	271	389	523	655	970	1283	1789
	1500	94	26	38	48	66	105	157	226	323	436	546	821	1090	1499
	1000	63	17	26	32	44	70	104	154	218	293	365	587	821	1041
	750	47	13	18	24	33	54	79	116	158	218	274	453	620	781
18	1800	100	27	40	51	70	114	152	238	290	463	580	843	1113	1527
	1500	83	22	33	43	58	96	127	201	244	384	484	721	959	1290
	1000	56	14	24	29	39	65	89	134	164	253	323	531	687	941
	750	42	11	17	22	29	50	67	107	129	184	242	419	570	710
20	1800	90	25		45	64		153	219		389	521		1012	1457
	1500	75	21		37	54		127	184		324	434		872	1220
	1000	50	14		25	36		85	124		216	290		637	843
	750	38	10		19	27		64	97		162	218		520	633
22.4	1800	80	22		42	57		136	197		367	468		953	1367
	1500	67	18		35	47		113	166		310	390		821	1139
	1000	45	12		23	32		74	111		210	260		587	761
	750	33	9		18	24		57	87		167	195		488	571

*Requires forced feed lubrication.

Thermal Capacity (HP)

TYPE H2/S2

Nominal Transmission Ratio i_n	n1	Gear unit Size												
		14	15	16	17	18	19	20	21	22	23	24	25	26
		Thermal Capacity P1 (HP) for gear unit without cooling												
5.6 to 14	1800	55	76	86	103	150	175	226	294	365	363	535	637	817
	1500	50	70	79	97	139	168	214	277	346	373	517	656	813
	1000	43	61	76	85	126	153	210	264	322	393	483	645	820
	750	39	54	64	81	113	151	187	239	301	400	473	694	806
16 to 22.4	1800	48	67	73	95	116	146	184	256	325	322	449	587	758
	1500	43	59	67	86	109	140	179	239	309	322	452	588	735
	1000	38	50	58	73	107	140	180	222	293	357	469	624	739
	750	33	42	53	64	94	126	168	199	272	331	462	602	688
Thermal Capacity P2 (HP) for gear unit with fan cooling														
5.6 to 14	1800	92	128	144	173	251	295	381	495	615	619	903	1087	1387
	1500	81	112	127	156	224	271	344	447	558	601	833	1057	1308
	1000	66	92	114	128	190	231	317	398	486	593	729	975	1239
	750	54	75	90	114	158	212	261	335	422	560	662	972	1129
16 to 22.4	1800	83	115	127	165	202	256	324	446	569	570	795	1038	1331
	1500	72	99	111	143	181	232	297	396	514	535	750	977	1220
	1000	58	76	87	111	161	212	272	336	443	540	709	943	1116
	750	46	59	74	89	131	176	235	278	381	464	646	842	963
Thermal Capacity P3 (HP) for gear unit with cooling coil														
5.6 to 14	1800	266	311	328	328	410	430	487	551	597	573	1016	1202	1512
	1500	247	288	306	316	391	418	468	528	583	594	931	1144	1405
	1000	227	272	298	300	378	394	455	510	576	622	732	883	1152
	750	203	235	259	288	349	386	424	475	553	644	705	957	1118
Thermal Capacity P4 (HP) for gear unit with fan and cooling coil														
16 to 22.4	1800	297	371	402	435	584	648	787	965	1135	1120	1766	2107	2675
	1500	272	338	369	410	543	617	738	901	1071	1129	1643	2057	2539
	1000	242	306	352	369	499	561	707	843	996	1158	1400	1802	2312
	750	213	262	297	347	446	539	628	755	919	1155	1324	1888	2198

SERIES E

NOMINAL POWER RATING (HP) - HELICAL - TRIPLE STAGE

TYPE H3/S3

E

i _N	n1	n2	Gear unit Size										
			16	17	18	19	20	21	22	23	24	25	26
20	1800	90			118			288			743		
	1500	75			99			243			645		
	1000	50			65			164			486		
	750	38			50			129			402		
22.4	1800	80			105			259			678		
	1500	67			87			218			587		
	1000	45			59			153			444		
	750	33			44			116			360		
25	1800	72	38	53	89	125	166	241	332	413	647	896	1213
	1500	60	32	44	74	104	139	200	279	344	553	754	1011
	1000	40	21	28	50	70	96	139	192	230	427	528	679
	750	30	16	21	37	52	72	101	146	172	327	402	507
28	1800	64	34	47	81	113	149	210	289	371	620	808	1095
	1500	54	28	39	67	94	126	176	243	309	520	679	913
	1000	36	19	25	45	64	91	121	172	206	386	478	609
	750	27	14	19	34	47	68	91	129	155	277	360	457
31.5	1800	57	30	39	66	96	144	190	262	330	581	776	967
	1500	48	25	33	55	80	119	159	218	275	486	645	806
	1000	32	17	23	37	55	79	106	146	183	335	427	538
	750	24	13	18	28	42	57	82	109	138	251	318	404
35.5	1800	51	27	36	65	92	124	175	247	298	563	692	873
	1500	43	22	30	54	77	104	146	206	248	469	578	728
	1000	28	15	21	37	50	69	97	138	166	310	386	485
	750	21	11	15	27	39	52	72	103	124	235	293	364
40	1800	45	24	34	61	86	113	155	218	267	480	623	778
	1500	38	20	28	50	72	94	131	182	223	402	520	648
	1000	25	13	20	35	47	63	87	121	149	277	344	433
	750	19	10	14	25	37	47	69	91	112	210	260	325
45	1800	40	21	28	52	73	101	138	197	240	439	550	702
	1500	33	18	23	44	60	84	116	164	200	369	461	585
	1000	22	12	17	28	42	56	77	109	134	251	302	390
	750	17	9	12	22	30	42	60	82	100	193	235	293
50	1800	36	19	24	46	65	90	124	180	210	403	495	611
	1500	30	16	20	39	54	75	104	150	175	335	411	510
	1000	20	11	15	26	37	50	72	100	117	226	277	340
	750	15	8	11	20	27	38	54	75	87	168	201	255
56	1800	32	17	23	40	56	78	111	159	188	350	442	545
	1500	27	14	19	34	47	65	92	133	157	293	369	454
	1000	18	9	13	23	32	46	64	89	105	201	243	303
	750	13	7	9	17	25	34	47	66	79	153	184	227
63	1800	29	15	18	34	48	70	94	132	169	300	392	492
	1500	24	13	15	28	40	59	78	110	141	251	327	410
	1000	16	8	10	18	27	41	52	72	94	176	218	273
	750	12	6	8	14	20	31	39	54	70	131	164	205
71	1800	25	13	17	30	42	64	84	117	160	271	353	434
	1500	21	11	14	25	35	53	70	98	133	226	293	362
	1000	14	7	9	17	23	36	47	65	89	154	193	241
	750	11	6	7	13	18	27	34	49	67	116	144	181
80	1800	23	12	14	28	38	58	72	110	141	239	312	415
	1500	19	10	12	23	32	49	60	92	118	201	260	345
	1000	13	7	9	15	22	32	40	57	79	137	168	230
	750	9	5	7	12	17	24	32	46	59	106	127	173
90	1800	20	11	14		34	52		91	127		282	369
	1500	17	9	11		28	43		77	106		235	308
	1000	11	6	8		18	29		52	71		154	205
	750	8	4	6		15	22		41	53		116	154
100	1800	18	10	14		33	46		88	114		270	333
	1500	15	8	11		28	38		74	95		225	278
	1000	10	5	8		18	25		49	63		150	185
	750	8	4	6		14	19		37	48		112	139
112	1800	16	9	12		30	42		78	99		231	294
	1500	13	7	10		25	35		65	83		193	245
	1000	9	5	7		17	23		43	55		126	163
	750	7	4	5		13	17		32	41		97	123

*Requires forced feed lubrication.

Thermal Capacity (HP)

TYPE H3/S3

Nominal Transmission Ratio i_n	n1	Gear unit Size										
		16	17	18	19	20	21	22	23	24	25	26
		Thermal Capacity P1 (HP) for gear unit without cooling										
20 to 35.5	1800	59	73	100	145	162	202	271	351	345	407	475
	1500	54	67	91	133	150	188	251	333	332	382	456
	1000	49	57	82	118	139	184	238	310	327	355	429
	750	40	50	72	105	124	159	207	291	304	325	409
40 to 112	1800	48	65	98	135	160	180	256	337	417	458	459
	1500	45	59	90	126	146	172	234	307	402	440	449
	1000	38	52	86	111	133	170	225	279	411	416	438
	750	37	45	71	103	115	154	188	237	375	396	426
Thermal Capacity P2 (HP) for gear unit with fan cooling												
20 to 35.5	1800	95	126	163	233	261	330	394	558	513	613	774
	1500	89	116	152	216	245	309	374	528	495	590	724
	1000	81	98	137	192	228	302	354	491	487	561	641
	750	75	89	127	175	209	264	327	455	455	535	600
40 to 112	1800	96	118	172	229	264	295	390	530	560	593	709
	1500	90	109	159	218	245	288	369	492	539	570	678
	1000	75	95	149	203	231	296	355	443	516	543	645
	750	72	85	128	191	202	277	323	400	489	516	604
Thermal Capacity P3 (HP) for gear unit with cooling coil												
20 to 112	1800	173	244	367	498	567	801	943	1096	1293	1574	
	1500	169	241	355	484	562	788	930	1090	1282	1549	
	1000	161	236	342	478	557	766	910	1078	1274	1525	1794
	750	159	235	329	454	550	754	898	1073	1257	1492	1777
Thermal Capacity P4 (HP) for gear unit with fan and cooling coil												
20 to 112	1800	183	227	296	404	447	568	693	933	879	995	1155
	1500	168	207	273	372	418	530	648	884	846	939	1119
	1000	153	176	246	331	388	518	614	823	834	872	1092
	750	131	158	220	296	349	449	546	769	776	805	1036

SERIES E

Nominal Power Rating (HP)

TYPE H4/S4

E

i _N	n1	n2	Gear unit Size								
			18	19	20	21	22	23	24	25	26
90	1800	20	27			73			223		
	1500	17	22			61			186		
	1000	11	15			41			124		
	750	8	11			31			93		
100	1800	18	24			66			200		
	1500	15	20			55			167		
	1000	10	13			37			111		
	750	8	10			27			84		
112	1800	16	21			58			185		
	1500	13	18			49			153		
	1000	9	12			34			99		
	750	7	9			25			72		
125	1800	14	19	31	34	52	69	89	163	195	244
	1500	12	16	26	28	44	57	74	136	163	203
	1000	8	11	17	19	28	38	49	89	107	136
	750	6	8	13	14	22	29	37	67	80	102
140	1800	13	17	27	33	46	61	87	145	174	214
	1500	11	14	22	28	39	51	73	121	146	178
	1000	7	9	15	19	27	34	49	79	96	119
	750	5	7	11	14	20	25	36	60	74	89
160	1800	11	15	24	29	40	55	79	126	152	195
	1500	9	12	20	24	34	46	66	106	127	163
	1000	6	8	13	16	23	30	44	70	85	108
	750	5	6	10	12	17	23	33	54	65	81
180	1800	10	13	19	24	38	50	62	114	138	161
	1500	8	11	16	20	32	42	52	96	116	134
	1000	6	7	11	13	20	28	35	64	77	91
	750	4	6	8	10	16	21	26	49	59	68
200	1800	9	12	17	22	30	44	55	106	125	149
	1500	8	10	14	18	25	37	46	85	104	123
	1000	5	7	9	12	17	23	31	57	69	82
	750	4	5	7	9	13	18	23	35	50	59
225	1800	8	11	14	19	28	38	49	90	115	132
	1500	7	9	12	16	23	32	41	75	92	110
	1000	4	6	8	11	15	22	27	50	62	72
	750	3	4	6	8	12	17	20	39	38	55
250	1800	7	10	14	17	24	36	44	81	97	114
	1500	6	8	11	14	20	30	37	67	80	95
	1000	4	5	8	9	14	20	24	45	54	64
	750	3	4	6	7	11	15	18	34	40	48
280	1800	6	9	12	15	23	31	39	72	88	105
	1500	5	7	10	13	19	26	33	60	74	87
	1000	4	5	7	9	13	17	22	40	49	58
	750	3	4	5	6	9	13	16	30	37	43
315	1800	6	8	10	14	19	26	36	64	78	93
	1500	5	6	8	11	16	22	30	54	65	78
	1000	3	4	5	8	11	16	20	35	42	50
	750	2	3	4	6	8	12	15	27	34	39
355	1800	5	7	8	12	17	25	32	59	71	82
	1500	4	6	6	10	14	21	27	49	59	68
	1000	3	4	4	7	10	14	18	32	39	46
	750	2	3	3	5	8	10	13	23	28	34
400	1800	5	6	8	11	16	23	29	54	63	72
	1500	4	5	7	9	13	19	24	44	52	60
	1000	3	3	4	6	8	13	16	28	34	40
	750	2	2	3	4	7	9	12	17	25	31
450	1800	4	5	6	10	15	20	25	42	58	75
	1500	3	4	5	9	13	17	21	35	49	62
	1000	2	3	3	6	8	11	14	23	32	41
	750	2	2	3	4	6	8	11	18	24	28
500	1800	4		8	9		18	23		52	58
	1500	3		6	8		15	19		43	49
	1000	2		4	5		10	13		29	33
	750	2		3	4		8	9		22	27
560	1800	3		6	8		16	20		45	54
	1500	3		5	7		13	17		38	45
	1000	2		4	4		9	11		25	30
	750	1		3	3		7	8		20	22

Thermal Capacity (HP)

TYPE H4/S4

Nominal Transmission Ratio i_n	n1	Gear Unit Size								
		18	19	20	21	22	23	24	25	26
		Thermal Capacity P1 (HP) for gear unit without cooling								
90 to 560	1800	37	59	67	93	117	162	202	227	268
	1500	34	54	61	87	110	143	187	215	254
	1000	31	50	53	73	98	117	167	192	221
	750	27	43	47	72	91	97	151	186	216



SERIES E

NOMINAL OUTPUT TORQUE RATING (In-lbs)

Type	i _N	Gear unit Size														
		11	13	14	15	16	17	18	19	20	21	22	23	24	25	26
H1/ S1	1.25	5,735	11,904	-	22,472	-	41,227	50,131	-	96,898	142,966	181,263	-	-	-	-
	1.4	5,841	11,949	-	21,720	-	40,466	51,511	-	95,836	141,913	181,263	-	-	-	-
	1.6	5,576	11,010	-	18,905	-	34,615	43,705	-	82,533	124,645	169,970	232,288	349,622	459,858	-
	1.8	5,762	11,692	-	20,171	-	36,315	44,059	-	88,366	124,866	140,470	249,733	348,666	493,456	737,232
	2	5,222	11,125	-	21,136	-	37,129	47,900	-	86,640	133,832	183,140	253,574	355,003	516,273	783,043
	2.24	5,957	10,709	-	21,392	-	39,855	48,520	-	95,650	138,576	189,176	260,115	378,352	534,620	806,825
	2.5	5,178	10,037	-	21,463	-	39,696	49,263	-	94,083	146,099	195,743	266,921	354,428	554,694	805,798
	2.8	5,284	9,577	-	22,277	-	41,085	50,511	-	97,261	145,276	191,743	266,257	347,489	575,139	851,752
	3.15	5,027	10,515	-	19,604	-	43,493	52,706	-	104,828	146,506	206,559	278,816	354,782	505,802	774,812
	3.55	4,974	10,692	-	22,684	-	48,865	59,663	-	118,166	167,642	228,712	322,070	375,387	546,445	823,376
	4	4,788	9,550	-	20,835	-	45,679	56,158	-	133,416	175,811	239,483	351,649	362,535	560,677	847,246
	4.5	4,443	9,550	-	16,905	-	44,519	61,805	-	121,193	166,934	244,484	356,181	382,122	545,445	827,350
	5	4,408	9,506	-	17,613	-	43,484	48,148	-	130,009	167,288	235,961	331,098	377,130	584,627	880,773
H2/ S2	5.6	-	-	16,020	24,233	34,978	45,015	71,027	101,164	150,693	193,513	260,115	315,007	494,960	731,647	1,051,539
	6.3	-	-	15,365	21,569	31,022	44,971	65,841	91,738	133,044	167,146	241,767	319,016	485,835	657,212	940,073
	7.1	-	-	17,020	22,968	31,296	45,431	70,602	98,314	151,622	187,361	246,104	341,683	511,918	674,276	1,027,324
	8	-	-	17,082	24,109	31,429	45,626	72,718	102,554	152,366	191,743	257,725	357,384	505,581	732,550	1,042,706
	9	-	-	17,002	24,649	31,473	45,661	78,170	116,662	147,648	190,264	285,268	354,242	515,627	693,642	1,008,330
	10	-	-	17,055	24,534	31,482	45,670	68,363	105,616	153,675	194,256	280,808	380,086	519,574	747,375	1,068,188
	11.2	-	-	16,914	24,596	31,526	45,590	74,523	108,475	148,223	199,832	267,337	380,228	517,096	690,287	1,061,399
	12.5	-	-	17,117	25,118	31,562	45,395	70,585	102,739	153,844	203,603	289,871	380,600	556,871	763,359	1,105,007
	14	-	-	17,020	24,835	31,464	45,378	68,638	101,695	163,854	204,399	288,375	380,972	533,249	706,033	1,011,127
	16	-	-	16,887	24,410	31,234	45,298	68,947	104,811	163,615	208,568	293,022	381,193	534,629	732,550	1,065,886
	18	-	-	16,179	23,782	31,305	45,192	71,098	96,261	159,694	175,254	275,488	381,414	534,497	717,167	1,009,516
	20	-	-	16,931	-	31,376	45,334	80,843	106,952	163,925	199,213	272,311	381,591	532,939	732,550	1,071,816
	22.4	-	-	16,799	-	32,712	45,218	80,984	105,758	168,863	196,787	288,216	381,733	539,860	793,823	1,109,317
H3/ S3	25	-	-	-	-	33,509	42,581	77,214	110,555	141,134	209,497	296,102	381,901	572,820	797,691	1,110,131
	28	-	-	-	-	32,845	43,130	77,347	115,086	142,816	205,559	292,429	382,034	599,408	813,640	1,110,547
	31.5	-	-	-	-	32,969	43,165	71,912	110,980	148,206	203,850	291,305	382,166	624,818	849,300	1,111,140
	35.5	-	-	-	-	32,615	45,935	78,568	110,006	154,357	214,666	309,502	382,237	672,834	876,737	1,111,486
	40	-	-	-	-	31,783	45,041	81,383	118,334	154,384	207,594	309,599	382,308	651,043	885,632	1,111,848
	45	-	-	-	-	31,898	42,988	77,957	114,113	154,410	231,536	309,634	382,379	664,992	865,107	1,112,132
	50	-	-	-	-	33,916	43,395	79,232	110,440	154,428	210,391	309,679	382,467	680,321	842,325	1,112,503
	56	-	-	-	-	33,243	44,209	74,258	111,378	112,174	212,692	309,714	382,529	649,716	865,134	1,112,742
	63	-	-	-	-	33,367	40,678	70,098	107,041	147,781	196,009	278,144	382,565	637,227	862,895	1,112,893
	71	-	-	-	-	33,836	41,731	71,815	104,412	154,490	197,221	283,569	382,582	639,042	855,194	1,113,149
	80	-	-	-	-	32,314	42,652	72,824	107,067	154,499	192,583	287,384	382,627	639,245	845,246	1,113,176
	90	-	-	-	-	31,535	45,068	83,153	104,598	154,516	241,360	288,012	382,689	681,357	865,107	1,113,371
H4/ S4	100	-	-	-	-	32,049	50,591	84,339	115,715	154,534	245,918	309,909	382,697	682,092	943,914	1,113,450
	112	-	-	-	-	32,704	47,201	84,852	116,414	154,543	239,873	309,935	382,733	673,462	876,321	1,113,627
	125	-	-	-	-	-	-	82,268	132,257	145,719	219,136	309,953	363,420	700,377	854,141	1,112,627
	140	-	-	-	-	-	-	82,781	132,266	161,544	217,781	309,980	410,967	692,075	862,151	1,079,340
	160	-	-	-	-	-	-	81,613	132,274	163,518	219,136	309,989	429,748	695,978	852,575	1,114,070
	180	-	-	-	-	-	-	80,577	115,555	154,578	217,011	309,989	382,848	682,676	867,763	1,070,294
	200	-	-	-	-	-	-	81,728	116,378	154,587	199,266	295,836	382,866	555,172	855,194	1,036,697
	224	-	-	-	-	-	-	81,852	107,669	154,596	207,523	297,403	382,866	675,834	714,857	1,071,020
	250	-	-	-	-	-	-	82,701	118,724	154,596	200,133	310,015	382,883	696,085	828,279	1,040,688
	280	-	-	-	-	-	-	83,215	119,556	154,605	207,692	310,033	382,910	698,076	850,716	1,062,957
	315	-	-	-	-	-	-	83,347	110,811	154,605	197,637	287,278	382,919	687,384	815,879	1,044,087
	355	-	-	-	-	-	-	83,197	96,686	154,614	204,620	310,050	382,919	696,085	831,156	1,042,715
	400	-	-	-	-	-	-	80,834	105,563	154,623	205,444	310,050	382,919	587,220	845,246	1,063,364
	450	-	-	-	-	-	-	80,834	95,464	154,614	208,037	310,068	382,919	675,418	911,060	1,029,333
	500	-	-	-	-	-	-	-	132,292	154,623	-	310,068	382,954	-	911,060	1,029,262
	560	-	-	-	-	-	-	-	122,247	154,614	-	310,068	382,972	-	911,034	1,029,271

NOMINAL POWER RATING (HP) - BEVEL HELICAL - DOUBLE STAGE

TYPE B2/K2

i _N	n1	n2	Gear unit Size											26
			11	13	15	17	18	20	21	22	23	24	25	
5	1800	360			98		266		873			2385		
	1500	300			84		222		729			1988		
	1000	200			71		149		491			1325		
	750	150			52		112		369			994		
5.6	1800	321		42	93		263		872	875		2130	2867	
	1500	268		35	80		220		728	731		1775	2397	
	1000	179		24	64		149		490	491		1183	1618	
	750	134		18	48		112		369	370		887	1221	
6.3	1800	286	24	42	90	147	226	478	688	874	1179	1525	2550	2934
	1500	238	20	35	75	126	193	399	590	729	1023	1324	2162	2481
	1000	159	13	23	57	94	144	268	453	491	779	989	1616	1851
	750	119	10	18	40	75	112	202	352	369	637	821	1220	1381
7.1	1800	254	24	42	90	147	226	448	679	874	1179	1525	2290	2818
	1500	211	20	35	75	126	193	377	578	729	1023	1324	1978	2404
	1000	141	13	23	54	94	144	268	444	491	779	989	1492	1757
	750	106	10	18	40	75	112	202	335	369	637	821	1207	1381
8	1800	225	17	38	81	130	235	402	630	873	1211	1448	2094	2860
	1500	188	14	32	67	109	193	344	536	729	1023	1257	1810	2403
	1000	125	10	22	45	75	144	260	411	490	779	939	1358	1690
	750	94	7	17	34	56	92	202	310	369	570	779	1106	1274
9	1800	200	15	36	72	128	202	366	565	785	1072	1247	1900	2871
	1500	167	12	30	60	107	168	318	486	662	905	1090	1643	2399
	1000	111	8	20	40	72	127	243	369	479	663	855	1240	1619
	750	83	6	16	32	54	85	200	293	360	498	704	1006	1220
10	1800	180	13	32	64	119	185	327	496	684	943	1179	1789	2743
	1500	150	11	27	54	99	154	277	427	578	786	1023	1525	2297
	1000	100	7	18	37	66	105	203	327	427	526	779	1039	1592
	750	75	5	14	28	50	77	154	260	321	396	637	855	1190
11.2	1800	161	12	25	58	94	164	291	458	626	847	1082	1664	2410
	1500	134	10	21	49	79	136	245	394	522	706	939	1408	2012
	1000	89	7	14	34	54	102	174	293	350	472	721	1056	1353
	750	67	5	11	25	42	69	131	235	263	354	587	788	1016
12.5	1800	144	11	25	52	90	153	279	419	571	790	1000	1535	1965
	1500	120	9	21	44	75	126	235	352	478	654	838	1274	1643
	1000	80	6	14	30	50	94	176	243	345	444	637	805	1106
	750	60	4	11	22	38	60	127	184	251	318	453	612	838
14	1800	129	9	20	47	86	114	254	369	533	694	933	1157	1561
	1500	107	8	17	39	71	95	210	302	436	566	779	972	1307
	1000	71	5	11	25	47	63	141	184	277	344	520	696	872
	750	54	4	8	18	36	47	101	134	193	243	394	520	671
16	1800	113	8	15	36	67	104	215	277	365	534	840	956	1205
	1500	94	7	13	30	56	85	176	226	302	436	687	805	1006
	1000	63	5	8	18	37	54	106	136	202	251	419	587	687
	750	47	3	6	14	28	39	77	99	148	184	302	436	511
18	1800	100	7	12	26	54	94	184	243	363	454	706	930	1159
	1500	83	6	10	22	45	78	153	203	302	378	589	775	966
	1000	56	4	7	14	30	52	102	135	202	252	392	516	644
	750	42	3	5	11	22	39	76	101	151	189	294	387	483
20	1800	90	6	11		53		165		362	409		837	1043
	1500	75	5	9		44		138		301	340		697	869
	1000	50	3	6		29		92		200	227		465	580
	750	38	3	5		22		69		149	170		349	435
22.4	1800	80	6			47		148			365			932
	1500	67	5			39		123			304			776
	1000	45	3			26		81			203			518
	750	33	2			19		60			152			388

*Requires forced feed lubrication.

SERIES E

Thermal Capacity (HP)

TYPE B2/K2

E

Nominal Transmission Ratio i_n	n1	Gear unit Size											
		11	13	15	17	18	20	21	22	23	24	25	26
		Thermal Capacity P1 (HP) for gear unit without cooling											
5 to 11.2	1800	20	33	56	69	118	232	235	296	378	476	559	577
	1500	19	31	52	67	110	207	230	270	368	463	536	571
	1000	17	29	48	65	104	164	226	235	351	455	510	555
	750	15	26	43	62	92	145	218	207	344	435	483	553
12.5 to 22.4	1800	18	31	51	73	112	193	235	287	370	452	546	714
	1500	16	29	47	68	104	185	225	277	360	444	523	706
	1000	14	26	42	63	90	176	209	255	342	433	496	697
	750	11	24	39	57	84	168	201	251	334	425	469	687
Thermal Capacity P2 (HP) for gear unit with fan cooling													
5 to 11.2	1800	53	69	122	144	271	495	559	647	841	994	1148	1167
	1500	48	64	113	139	248	434	520	572	789	944	1086	1128
	1000	44	61	105	135	234	342	511	500	752	927	1006	1097
	750	37	54	92	127	198	284	437	400	671	837	939	1038
12.5 to 22.4	1800	45	72	124	162	255	414	555	665	841	1063	1093	1155
	1500	40	67	114	149	236	388	517	621	803	1006	1046	1113
	1000	32	59	97	128	200	335	435	510	717	866	1006	1033
	750	26	55	89	117	186	320	418	503	701	851	939	1006
Thermal Capacity P3 (HP) for gear unit with cooling coil													
5 to 22.4	1800	36	46	93	122	186	284	358	393	582	750	1001	941
	1500	34	47	94	120	186	282	345	413	552	716	981	1009
	1000	27	39	81	136	194	264	412	389	688	919	1142	1269
	750	26	47	92	120	187	274	336	447	526	700	982	1217
Thermal Capacity P4 (HP) for gear unit with fan and cooling coil													
5 to 22.4	1800	55	74	136	168	287	505	576	668	901	1110	1269	1343
	1500	50	71	130	163	272	461	547	628	855	1062	1207	1353
	1000	44	65	117	168	266	385	575	562	895	1150	1180	1461
	750	39	63	114	154	239	351	495	527	771	986	1073	1404

NOMINAL POWER RATING (HP) - BEVEL HELICAL - TRIPLE STAGE

TYPE B3/K3

i _n	n1	n2	Gear unit Size													
			14	15	16	17	18	19	20	21	22	23	24	25	26	
20	1800	90		34			106			267			847			
	1500	75		28			89			226			721			
	1000	50		20			60			159			528			
	750	38		15			47			126			411			
22.4	1800	80		30	44		101	129		258	349		793	1014		
	1500	67		25	37		84	109		218	293		671	855		
	1000	45		18	25		57	80		151	218		486	603		
	750	33		13	18		42	60		117	159		369	461		
25	1800	72	18	28	40	51	88	124	167	230	318	417	692	896	1128	
	1500	60	15	23	34	42	74	104	139	193	268	348	587	754	941	
	1000	40	11	16	23	28	50	70	93	134	184	232	427	528	628	
	750	30	8	12	17	21	39	54	70	101	142	174	327	402	471	
28	1800	64	16	22	36	44	74	95	150	183	281	375	638	808	1005	
	1500	54	13	18	30	37	62	80	125	154	235	312	536	679	838	
	1000	36	9	13	20	25	42	57	83	111	158	208	377	478	563	
	750	27	7	10	15	19	32	44	62	84	119	156	285	360	422	
31.5	1800	57	14	20	26	40	66	88	139	170	240	336	581	776	908	
	1500	48	12	17	22	34	55	74	116	142	201	280	486	645	757	
	1000	32	8	12	15	23	37	52	77	99	139	187	335	427	505	
	750	24	6	9	11	17	28	39	57	74	104	140	251	318	379	
35.5	1800	51	13	19	29	36	60	80	119	154	221	299	520	692	806	
	1500	43	11	16	25	30	50	67	99	129	184	249	436	578	671	
	1000	28	7	11	16	20	34	47	66	89	126	166	302	386	456	
	750	21	5	8	12	15	25	35	50	67	94	125	226	293	335	
40	1800	45	12	17	26	32	54	72	104	138	195	263	467	625	726	
	1500	38	10	14	21	27	45	60	87	116	164	218	394	520	603	
	1000	25	7	9	14	18	30	42	58	79	112	161	268	361	443	
	750	19	5	7	11	13	23	32	43	60	87	110	210	260	308	
45	1800	40	10	15	19	28	48	65	100	129	180	234	431	550	640	
	1500	33	8	13	16	24	40	55	84	107	151	195	360	461	536	
	1000	22	6	8	11	16	27	37	55	70	101	130	243	302	355	
	750	17	5	7	8	12	20	30	44	54	77	99	184	235	275	
50	1800	36	9	14	21	25	42	60	85	114	160	209	391	495	579	
	1500	30	8	12	18	21	35	50	71	96	134	174	327	411	483	
	1000	20	5	8	12	14	23	34	48	64	91	117	218	277	322	
	750	15	4	6	9	11	18	25	36	49	69	87	166	201	241	
56	1800	32	8	12	19	23	38	51	75	100	142	187	340	442	512	
	1500	27	7	10	15	19	32	44	62	84	119	156	285	369	429	
	1000	18	5	7	10	13	22	30	42	57	82	105	193	243	288	
	750	13	4	5	8	10	17	25	31	44	62	79	148	184	221	
63	1800	29	7	11	14	20	34	46	70	88	127	168	300	392	457	
	1500	24	6	9	11	17	28	39	59	74	106	140	251	327	382	
	1000	16	4	6	7	11	20	28	40	50	72	94	176	218	255	
	750	12	3	5	6	9	14	21	30	39	54	70	131	164	194	
71	1800	25	6	10	15	18	30	41	60	81	113	150	277	353	402	
	1500	21	5	8	12	15	25	35	50	67	94	125	226	293	335	
	1000	14	4	6	8	10	17	23	33	45	62	83	136	193	223	
	750	11	3	4	6	8	13	20	25	34	45	62	99	144	167	
80	1800	23	4		12	16		38	52		111	131		321	351	
	1500	19	4		10	13		32	43		92	109		268	293	
	1000	13	3		7	9		23	29		61	73		181	195	
	750	9	3		5	7		17	22		45	54		135	148	
90	1800	20	5		9	14		36	52		94	117		284	317	
	1500	17	4		8	12		30	44		77	98		235	264	
	1000	11	3		5	8		20	28		49	65		157	176	
	750	8	2		4	6		15	22		35	49		114	132	
100	1800	18	4			13			43			102			284	
	1500	15	4			11			35			84			233	
	1000	10	2			7			22			52			142	
	750	8	2			5			16			39			104	

*Requires forced feed lubrication.

SERIES E

Thermal Capacity (HP)

TYPE B3/K3

E

Nominal Transmission Ratio i_n	n1	Gear Unit Size												
		14	15	16	17	18	19	20	21	22	23	24	25	26
		Thermal Capacity P1 (HP) for gear unit without cooling												
20 to 35.5	1800		48	61	64	90	116	152	177	232	279	354	452	465
	1500		44	56	59	86	109	142	172	223	261	340	422	442
	1000		39	48	54	82	101	128	168	201	223	321	375	396
	750		34	44	48	76	92	117	159	198	212	307	349	382
40 to 100	1800	32	44	59	64	85	105	120	164	215	225	335	407	421
	1500	30	40	54	60	80	101	116	161	206	214	320	382	402
	1000	28	35	41	58	77	96	105	158	193	201	303	349	371
	750	25	32	40	50	70	91	105	154	184	188	285	322	355
Thermal Capacity P2 (HP) for gear unit with fan cooling														
20 to 35.5	1800	93	120	156	157	208	260	343	380	523	632	781	881	978
	1500	89	114	146	149	201	246	318	360	482	570	727	827	901
	1000	80	101	127	134	192	227	286	352	435	487	685	786	806
	750	77	97	121	128	185	210	259	318	386	419	604	706	717
40 to 100	1800	82	106	145	161	203	249	295	378	453	465	710	851	890
	1500	79	101	136	151	193	235	279	355	427	435	654	805	831
	1000	75	94	110	139	181	218	233	327	402	389	587	722	778
	750	72	87	109	126	168	201	234	302	369	362	520	687	697
Thermal Capacity P3 (HP) for gear unit with cooling coil														
20 to 100	1800	121	146	176	183	252	288	373	429	534	522	632	699	816
	1500	119	141	169	173	237	277	351	415	524	494	618	671	783
	1000	114	136	155	160	224	268	316	402	502	434	596	637	700
	750	112	129	149	147	202	252	295	385	497	419	584	603	693
Thermal Capacity P4 (HP) for gear unit with fan and cooling coil														
20 to 100	1800	182	226	283	291	396	479	625	710	928	1032	1272	1552	1595
	1500	175	215	267	274	376	455	584	682	885	953	1213	1490	1530
	1000	162	199	238	251	359	429	525	664	820	824	1153	1415	1370
	750	157	187	226	233	332	399	483	620	778	757	1077	1341	1356

SERIES E

NOMINAL POWER RATING (HP) - BEVEL HELICAL - QUADRUPLE STAGE

TYPE B4/K4

i _N	n1	n2	Gear unit Size									
			17	18	19	20	21	22	23	24	25	26
80	1800	23		28			77			248		
	1500	19		24			64			207		
	1000	13		16			43			138		
	750	9		12			32			103		
90	1800	20		25			68			221		
	1500	17		21			57			184		
	1000	11		14			38			123		
	750	8		11			28			92		
100	1800	18		23	31		61	82		196	265	
	1500	15		19	26		51	69		164	220	
	1000	10		13	17		34	45		109	141	
	750	8		9	13		26	35		84	107	
112	1800	16	11	19	26	38	54	74	95	173	222	255
	1500	13	9.6	16	22	32	45	62	79	144	184	215
	1000	9	6.4	12	16	21	30	42	52	101	117	141
	750	7	4.8	8	12	16	23	32	39	74	89	111
125	1800	14	10	18	24	36	48	66	103	156	196	257
	1500	12	8.7	15	20	30	40	55	86	131	163	214
	1000	8	5.8	10	14	20	27	39	57	89	109	143
	750	6	4.4	8	11	15	20	28	43	67	80	107
140	1800	13	9	16	22	30	44	58	92	140	175	234
	1500	11	7.7	13	18	25	37	49	76	117	146	195
	1000	7	5.2	9	13	17	25	35	51	80	97	130
	750	5	3.9	7	9	13	18	26	38	60	74	97
160	1800	11	8	15	20	27	40	54	66	126	152	184
	1500	9	7.0	13	17	22	34	45	55	106	127	154
	1000	6	4.7	8	12	15	22	30	36	70	85	101
	750	5	3.5	6	8	11	17	23	28	54	65	78
180	1800	10	7	13	18	24	34	48	59	114	138	161
	1500	8	6.2	11	15	20	28	40	50	96	116	134
	1000	6	4.2	7	10	13	20	27	34	64	77	91
	750	4	3.1	5	8	10	15	20	25	49	59	68
200	1800	9	7	12	16	21	30	44	53	102	125	149
	1500	8	5.5	10	13	18	25	37	44	85	104	123
	1000	5	3.7	6	9	12	17	23	30	57	69	82
	750	4	2.8	5	7	9	13	18	23	44	50	59
225	1800	8	6	10	14	19	28	38	57	90	110	145
	1500	7	4.9	8	12	16	23	32	48	75	92	121
	1000	4	3.3	6	8	10	15	22	32	50	62	81
	750	3	2.5	4	6	8	12	17	24	39	47	60
250	1800	7	5	9	14	19	24	34	51	81	97	131
	1500	6	4.4	8	11	16	20	28	43	67	80	109
	1000	4	2.9	5	5	10	14	20	28	45	54	73
	750	3	2.2	4	4	8	11	15	21	34	40	55
280	1800	6	5	7	11	15	22	30	46	72	88	115
	1500	5	3.9	6	9	12	18	25	38	60	74	96
	1000	4	2.6	4	6	8	13	18	25	40	49	64
	750	3	1.9	3	5	6	9	13	19	30	37	48
315	1800	6	4	6	10	13	19	28	41	64	78	104
	1500	5	3.5	5	8	11	16	23	34	54	65	87
	1000	3	2.4	4	6	7	11	15	23	35	42	58
	750	2	1.8	3	4	6	8	12	17	27	34	43
355	1800	5	4	6	9	13	17	22	29	46	71	79
	1500	4	3.1	5	8	11	14	18	24	39	59	66
	1000	3	2.1	3	5	7	10	13	16	27	39	44
	750	2	1.6	2	4	5	7	9	12	20	28	33
400	1800	5	3	5	8	10	15	18	26	38	56	70
	1500	4	2.8	4	6	8	13	15	22	32	47	58
	1000	3	1.8	3	4	6	8	10	14	22	32	39
	750	2	1.3	2	3	4	6	8	11	16	23	28
450	1800	4	3		6	9		18	29		56	71
	1500	3	2.2		5	8		15	24		47	59
	1000	2	1.5		3	5		10	16		31	40
	750	2	1.2		3	4		8	12		23	28
500	1800	4	3		6	8		14	26		44	51
	1500	3	2.1		5	6		12	21		37	42
	1000	2	1.5		3	4		8	14		25	28
	750	2	1.2		2	3		6	11		18	20
560	1800	3	2		5	7		12	22		40	44
	1500	3	1.9		4	6		10	18		34	37
	1000	2	1.3		3	4		7	12		22	25
	750	1	1.0		2	3		5	9		17	18

E

SERIES E

Thermal Capacity (HP)

TYPE B4/K4



Nominal Transmission Ratio i_n	n1	Gear Unit Size									
		17	18	19	20	21	22	23	24	25	26
		Thermal Capacity P1 (HP) for gear unit without cooling									
20 to 35.5	1800	29	41	50	57	82	112	109	197	256	290
	1500	27	37	47	55	75	101	102	186	238	276
	1000	23	30	40	49	67	92	89	170	199	238
	750	22	27	39	48	59	75	83	158	190	238

SERIES E

NOMINAL OUTPUT TORQUE RATING (In-lbs)

Type	i _n	Gear unit Size														
		11	13	14	15	16	17	18	19	20	21	22	23	24	25	26
B2/ K2	5	-	-	-	17,232	-	-	44,988	-	-	155,021	-	-	410,064	-	-
	5.6	-	8,435	-	18,401	-	-	49,980	-	-	168,244	167,137	-	397,770	573,997	-
	6.3	5,248	9,284	-	19,392	-	34,429	50,511	-	108,422	151,604	195,398	272,125	339,727	562,491	655,265
	7.1	5,965	10,320	-	22,189	-	39,731	57,176	-	115,600	170,102	216,356	316,883	392,787	586,185	731,302
	8	4,930	10,373	-	22,224	-	37,589	60,265	-	118,919	175,811	244,997	348,790	402,815	608,577	829,049
	9	4,611	11,090	-	22,543	-	41,483	63,398	-	122,813	179,298	247,626	346,551	400,611	604,001	925,142
	10	4,576	11,267	-	21,976	-	44,032	63,717	-	118,804	175,121	243,006	333,770	422,446	640,980	977,052
	11.2	4,532	9,621	-	22,445	-	38,421	61,805	-	118,467	179,829	244,546	339,515	418,923	659,292	972,033
	12.5	4,425	10,701	-	22,676	-	40,457	63,575	-	126,043	180,847	248,856	339,674	429,226	618,083	882,287
	14	4,505	9,568	-	21,693	-	43,917	56,087	-	120,344	157,782	225,650	287,357	462,398	569,032	774,812
	16	4,425	8,081	-	18,339	-	37,368	50,405	-	103,802	129,663	198,354	247,015	386,698	540,958	676,949
	18	4,036	7,151	-	15,967	-	34,244	59,327	-	117,963	149,595	225,172	289,650	432,801	569,705	744,994
	20	4,266	7,939	-	22,614	-	38,580	70,771	-	118,264	180,272	249,874	288,977	580,689	585,981	739,798
	22.4	4,293	-	-	22,490	33,456	37,465	75,249	102,031	116,573	200,877	274,709	292,367	607,887	800,568	750,233
B3/ K3	25	-	-	15,905	24,384	34,341	45,811	74,612	109,493	153,844	192,796	279,064	381,865	605,966	785,849	1,025,200
	28	-	-	15,365	21,012	35,323	43,546	70,948	94,181	154,295	176,404	274,709	382,016	620,508	794,682	1,025,695
	31.5	-	-	15,197	21,534	28,473	44,670	71,310	98,208	161,553	188,592	260,389	382,131	632,828	857,469	1,026,076
	35.5	-	-	14,940	23,755	36,067	44,935	73,045	101,430	154,375	185,361	275,488	382,219	646,361	865,107	1,030,333
	40	-	-	15,993	21,950	36,031	45,148	72,107	101,430	154,410	184,281	276,117	382,326	634,705	873,418	1,060,036
	45	-	-	15,586	22,490	29,916	45,272	72,240	105,758	168,863	194,699	280,427	382,396	653,486	874,834	1,037,998
	50	-	-	15,418	24,030	35,978	45,157	71,222	105,961	158,234	191,123	279,064	383,777	675,223	838,245	1,065,205
	56	-	-	15,745	22,923	35,987	45,210	72,859	102,031	154,472	191,743	278,630	382,520	659,292	853,548	1,049,946
	63	-	-	16,064	23,685	28,730	44,670	73,470	102,669	166,306	195,256	273,408	382,565	654,654	880,039	1,036,599
	71	-	-	14,940	24,003	36,040	44,971	73,045	106,501	154,507	192,583	270,479	382,618	586,698	862,603	1,028,457
	80	-	-	12,789	-	33,810	45,590	74,851	107,067	154,525	205,682	304,289	382,671	672,666	901,599	1,028,182
	90	-	-	13,719	-	28,508	45,608	77,267	114,732	173,979	201,452	261,725	382,706	666,258	881,313	1,028,324
	100	-	-	14,223	-	-	45,413	78,356	105,881	141,913	209,798	280,480	339,488	666,780	872,595	917,265
B4/ K4	112	-	-	-	-	-	45,236	74,019	102,031	154,552	201,177	290,402	387,654	670,028	824,119	1,032,749
	125	-	-	-	-	-	45,174	79,427	105,961	169,014	204,532	287,782	480,312	680,622	838,245	1,220,518
	140	-	-	-	-	-	45,316	79,551	107,917	154,569	216,949	284,516	484,392	687,384	853,548	1,220,589
	160	-	-	-	-	-	45,165	80,551	111,599	154,569	208,630	292,942	383,883	704,785	857,469	1,061,222
	180	-	-	-	-	-	45,227	78,674	114,113	154,587	201,788	300,536	390,681	692,774	865,107	1,045,689
	200	-	-	-	-	-	45,210	78,949	112,697	154,587	206,028	295,836	392,000	697,554	845,246	1,042,698
	224	-	-	-	-	-	45,289	77,913	112,174	154,596	201,177	296,004	434,811	701,191	891,031	1,087,845
	250	-	-	-	-	-	45,387	81,197	81,232	170,784	204,532	296,509	433,828	698,076	838,245	1,101,502
	280	-	-	-	-	-	45,210	63,646	105,961	154,605	216,949	294,323	428,969	707,024	853,548	1,077,631
	315	-	-	-	-	-	45,457	67,124	111,599	154,605	203,284	292,942	434,855	704,785	846,193	1,087,943
	355	-	-	-	-	-	45,236	63,460	114,113	169,155	205,744	275,488	343,754	554,366	852,575	928,434
	400	-	-	-	-	-	43,785	61,787	105,660	143,223	194,336	253,574	340,400	521,725	788,894	1,007,153
	450	-	-	-	-	-	40,182	-	96,146	154,614	-	280,427	434,908	-	907,228	1,025,784
	500	-	-	-	-	-	44,572	-	99,013	142,320	-	235,129	435,041	-	760,722	812,693
	560	-	-	-	-	-	44,749	-	100,562	153,711	-	229,438	410,577	-	775,414	825,828

E

SERIES E

ACTUAL RATIO - HELICAL TYPE

H1, H2, H3, H4/ S1, S2, S3, S4

E

Type	i_n	Gear unit Size														
		11	13	14	15	16	17	18	19	20	21	22	23	24	25	26
H1/ S1	1.25	1.21	1.24	-	1.25	-	1.26	1.23	-	1.25	1.26	1.25	-	-	-	-
	1.4	1.38	1.39	-	1.35	-	1.39	1.42	-	1.38	1.40	1.40	-	-	-	-
	1.6	1.58	1.61	-	1.58	-	1.61	1.59	-	1.58	1.61	1.61	1.61	1.59	1.56	-
	1.8	1.82	1.82	-	1.79	-	1.78	1.76	-	1.82	1.77	1.77	1.77	1.83	1.78	1.81
	2	1.95	2.00	-	2.00	-	1.95	2.00	-	1.95	2.00	2.00	2.00	2.00	1.95	2.04
	2.24	2.29	2.24	-	2.25	-	2.26	2.22	-	2.26	2.21	2.24	2.24	2.24	2.20	2.27
	2.5	2.45	2.50	-	2.44	-	2.45	2.41	-	2.43	2.53	2.53	2.53	2.45	2.50	2.48
	2.8	2.78	2.83	-	2.75	-	2.78	2.71	-	2.79	2.75	2.72	2.80	2.67	2.85	2.79
	3.15	3.11	3.18	-	3.06	-	3.25	3.12	-	3.24	3.06	3.19	3.17	3.05	3.10	3.14
	3.55	3.53	3.53	-	3.50	-	3.75	3.53	-	3.65	3.50	3.53	3.69	3.53	3.53	3.62
	4	4.12	3.88	-	3.94	-	4.12	3.89	-	4.12	3.90	4.00	4.06	3.81	4.00	4.11
	4.5	4.47	4.38	-	4.44	-	4.61	4.50	-	4.59	4.39	4.45	4.56	4.38	4.38	4.59
	5	5.06	5.00	-	5.00	-	5.28	4.88	-	5.11	5.00	5.00	5.05	4.82	5.00	5.06
H2/ S2	5.6	-	-	5.31	5.56	5.56	5.89	5.57	5.65	5.80	5.57	5.57	5.69	5.68	5.60	5.78
	6.3	-	-	6.06	6.13	6.44	6.51	6.32	6.35	6.37	6.17	6.48	6.31	6.26	6.43	6.61
	7.1	-	-	6.93	6.79	7.29	7.43	7.06	7.16	7.39	7.00	7.13	7.21	7.06	7.09	7.38
	8	-	-	7.95	7.78	8.00	8.45	7.94	7.78	8.16	7.78	7.82	8.28	7.80	8.00	8.13
	9	-	-	8.54	8.75	8.94	9.49	8.60	8.95	8.96	8.44	9.00	8.89	8.93	8.95	9.18
	10	-	-	10.00	9.68	10.00	10.38	9.71	10.12	10.38	9.47	10.22	10.31	9.71	10.11	10.27
	11.2	-	-	10.72	10.91	11.33	11.39	10.80	11.00	11.24	10.91	11.06	11.06	10.80	10.89	11.59
	12.5	-	-	12.15	12.03	12.71	13.06	12.35	12.75	12.75	12.35	12.47	12.71	12.35	12.75	12.85
	14	-	-	13.59	13.56	14.12	14.86	13.92	13.88	14.91	13.61	14.12	14.74	13.76	14.12	14.53
	16	-	-	15.44	15.75	15.50	16.27	15.69	16.00	17.21	15.75	16.00	16.61	15.49	16.00	16.92
	18	-	-	18.01	17.09	17.50	18.44	17.65	18.00	18.89	17.09	17.78	18.76	17.65	17.80	18.62
	20	-	-	19.57	-	20.00	20.17	19.62	20.00	21.16	19.50	20.00	20.90	19.65	20.00	20.90
	22.4	-	-	22.13	-	22.12	22.77	22.11	22.75	24.22	21.49	22.12	23.28	21.90	23.00	23.17
H3/ S3	25	-	-	-	-	25.03	24.50	24.91	25.31	24.14	24.87	25.26	26.40	24.64	25.17	26.13
	28	-	-	-	-	27.48	27.65	27.45	29.18	27.03	27.79	28.63	29.41	27.45	28.52	28.96
	31.5	-	-	-	-	31.02	31.15	30.94	32.82	30.94	30.63	31.81	33.09	30.59	31.73	32.82
	35.5	-	-	-	-	34.59	36.01	34.86	34.71	35.42	35.44	35.71	36.62	34.42	36.08	36.36
	40	-	-	-	-	37.98	39.39	38.51	40.00	38.90	37.79	40.47	40.81	38.51	40.89	40.81
	45	-	-	-	-	42.88	44.45	43.40	45.00	43.56	47.64	44.97	45.46	42.91	45.49	45.24
	50	-	-	-	-	50.66	51.23	48.90	49.00	48.75	48.18	49.00	52.11	48.29	49.83	51.95
	56	-	-	-	-	55.62	56.04	52.71	56.47	53.53	54.90	55.53	58.06	52.71	56.47	58.31
	63	-	-	-	-	62.79	63.24	60.31	63.53	59.94	60.49	61.70	64.68	60.31	62.82	64.63
	71	-	-	-	-	71.76	70.70	67.97	70.59	68.82	70.00	69.41	68.41	67.20	70.59	73.24
	80	-	-	-	-	77.23	83.07	76.59	80.00	75.57	75.95	80.00	77.24	75.63	80.00	76.68
	90	-	-	-	-	84.79	93.75	89.42	90.00	84.63	94.14	88.89	86.07	87.35	89.00	86.07
	100	-	-	-	-	95.74	105.61	100.78	100.00	96.86	106.57	100.00	95.88	97.16	100.00	95.41
	112	-	-	-	-	109.41	114.75	113.55	110.59	105.94	117.43	113.75	110.32	111.18	110.59	108.11
H4/ S4	125	-	-	-	-	-	-	122.88	123.05	122.08	122.00	128.72	117.19	125.07	126.32	130.13
	140	-	-	-	-	-	-	138.48	141.82	138.41	134.43	145.88	134.61	139.37	143.16	144.22
	160	-	-	-	-	-	-	156.04	159.55	161.94	155.56	162.09	156.12	156.84	159.26	163.11
	180	-	-	-	-	-	-	173.30	170.06	186.86	171.16	176.47	175.99	170.03	178.55	189.94
	200	-	-	-	-	-	-	195.31	196.00	205.18	188.60	200.00	197.64	189.47	202.35	209.06
	224	-	-	-	-	-	-	220.07	220.50	229.77	218.24	222.22	223.14	213.22	225.12	234.65
	250	-	-	-	-	-	-	247.06	249.07	262.99	236.78	249.13	248.64	247.06	244.98	260.12
	280	-	-	-	-	-	-	278.43	287.06	287.90	268.05	282.35	276.97	275.29	277.65	294.74
	315	-	-	-	-	-	-	313.73	322.94	326.90	295.35	313.73	307.08	309.80	308.88	333.85
	355	-	-	-	-	-	-	352.94	358.82	374.17	341.76	352.94	342.17	352.94	347.06	370.09
	400	-	-	-	-	-	-	386.38	379.72	409.61	388.89	390.31	381.17	400.81	400.00	419.35
	450	-	-	-	-	-	-	434.67	437.65	432.73	421.93	442.35	433.52	456.62	445.00	440.92
	500	-	-	-	-	-	-	-	492.35	484.59	-	491.50	483.07	-	500.00	494.88
	560	-	-	-	-	-	-	-	547.06	554.65	-	552.94	538.12	-	568.75	548.60

SERIES E

ACTUAL RATIO - BEVEL HELICAL TYPE

B2, B3, B4/ K2, K3, K4

Type	i_n	Gear unit Size														
		11	13	14	15	16	17	18	19	20	21	22	23	24	25	26
B2/ K2	5	-	-	-	4.88	-	-	4.82	-	-	5.06	-	-	4.91	-	-
	5.6	-	5.67	-	5.50	-	-	5.41	-	-	5.50	5.44	-	5.33	5.70	-
	6.3	6.21	6.35	-	6.12	-	6.50	6.24	-	6.47	6.12	6.38	6.33	6.11	6.19	6.29
	7.1	7.06	7.06	-	7.00	-	7.50	7.06	-	7.29	7.00	7.06	7.38	7.06	7.05	7.24
	8	8.24	7.75	-	7.89	-	8.24	7.78	-	8.24	7.80	8.00	8.12	7.63	8.00	8.21
	9	8.95	8.75	-	8.89	-	9.22	9.00	-	9.18	8.78	8.90	9.11	8.75	8.75	9.18
	10	10.12	10.00	-	9.75	-	10.56	9.83	-	10.22	9.75	10.00	10.10	9.83	10.00	10.13
	11.2	10.88	10.79	-	10.99	-	11.56	10.83	-	11.50	10.86	11.14	11.44	10.62	11.14	11.50
	12.5	12.46	12.19	-	12.38	-	12.85	12.54	-	12.78	12.23	12.40	12.69	12.19	12.19	12.78
	14	14.09	13.93	-	14.00	-	14.70	14.12	-	14.24	14.00	13.93	14.07	14.12	13.93	14.10
	16	15.15	15.50	-	15.78	-	16.10	15.56	-	16.02	15.60	16.00	15.94	15.25	16.00	16.02
	18	17.89	17.50	-	17.78	-	18.44	18.00	-	18.35	17.56	17.80	18.22	17.50	17.50	18.35
	20	20.24	20.00	-	18.89	-	21.11	18.96	-	20.44	18.96	20.00	20.20	19.17	20.00	20.25
	22.4	21.75	-	-	21.29	21.59	23.11	21.37	22.29	23.00	21.94	22.29	22.89	21.58	22.29	23.00
B3/ K3	25	-	-	25.09	24.72	24.38	25.69	24.07	25.07	26.31	23.80	24.76	26.13	24.58	24.79	25.94
	28	-	-	27.26	27.12	27.86	28.10	27.22	27.86	29.47	27.22	27.86	29.11	27.53	27.86	29.11
	31.5	-	-	30.83	30.57	30.81	31.71	30.68	31.69	33.73	31.50	30.81	32.43	30.98	32.04	32.27
	35.5	-	-	33.13	35.50	35.00	35.73	34.57	36.00	36.92	34.18	35.56	36.49	35.29	35.60	36.57
	40	-	-	39.14	37.77	40.00	40.35	37.92	40.00	42.31	37.92	40.00	41.80	38.34	40.00	41.80
	45	-	-	44.26	42.58	44.24	45.53	42.73	45.50	48.43	43.88	44.24	46.57	43.15	46.00	46.34
	50	-	-	47.58	49.45	48.75	51.30	48.15	50.14	53.02	47.60	49.52	52.39	49.16	49.59	52.51
	56	-	-	54.52	54.24	55.71	56.20	54.44	55.71	58.94	54.44	55.71	58.23	55.06	55.71	58.23
	63	-	-	61.65	61.14	61.61	63.42	61.36	63.38	67.46	63.00	61.61	64.86	61.96	64.07	64.55
	71	-	-	66.27	71.00	70.00	71.45	69.14	72.00	73.85	68.35	71.11	72.97	70.59	71.20	73.14
	80	-	-	78.29	-	80.00	80.69	75.14	80.00	84.63	74.62	80.00	83.61	77.43	80.00	83.61
	90	-	-	88.53	-	88.47	91.07	87.26	91.00	96.86	84.26	88.47	93.14	86.28	92.00	92.68
	100	-	-	95.16	-	-	102.60	98.32	96.68	106.04	97.50	98.32	104.78	97.09	98.32	105.02
B4/ K4	112	-	-	-	-	-	112.53	110.61	111.43	115.53	105.78	111.43	116.09	110.61	111.43	116.37
	125	-	-	-	-	-	123.26	125.29	125.36	133.31	120.99	123.81	133.71	123.88	123.96	135.50
	140	-	-	-	-	-	139.69	141.18	139.29	146.38	140.00	139.29	150.96	139.41	139.29	149.15
	160	-	-	-	-	-	152.79	158.82	158.44	163.92	151.90	154.03	168.21	158.82	160.18	167.40
	180	-	-	-	-	-	172.43	174.52	180.00	187.62	168.52	177.78	187.38	172.55	178.00	185.57
	200	-	-	-	-	-	194.26	196.64	200.00	205.39	195.00	200.00	210.80	194.18	200.00	210.27
	224	-	-	-	-	-	219.39	221.22	227.50	235.37	211.57	221.18	216.76	221.22	230.00	214.16
	250	-	-	-	-	-	247.60	250.59	250.71	269.40	241.98	247.62	241.53	247.76	247.93	240.37
	280	-	-	-	-	-	278.94	282.35	278.57	294.92	280.00	278.57	269.06	278.82	278.57	266.46
	315	-	-	-	-	-	305.58	317.65	316.88	327.84	303.79	308.07	301.92	317.65	320.36	298.30
	355	-	-	-	-	-	344.86	346.52	360.00	375.24	343.64	355.56	336.42	342.19	356.00	334.80
	400	-	-	-	-	-	388.52	389.84	400.00	410.78	372.83	400.00	374.76	389.84	400.00	420.55
	450	-	-	-	-	-	438.78	-	455.00	470.74	-	442.35	433.52	-	460.00	428.33
	500	-	-	-	-	-	495.19	-	490.91	538.80	-	490.91	483.07	-	490.91	480.75
	560	-	-	-	-	-	557.87	-	558.41	589.84	-	542.89	538.12	-	564.55	532.92

E

SERIES E

mm

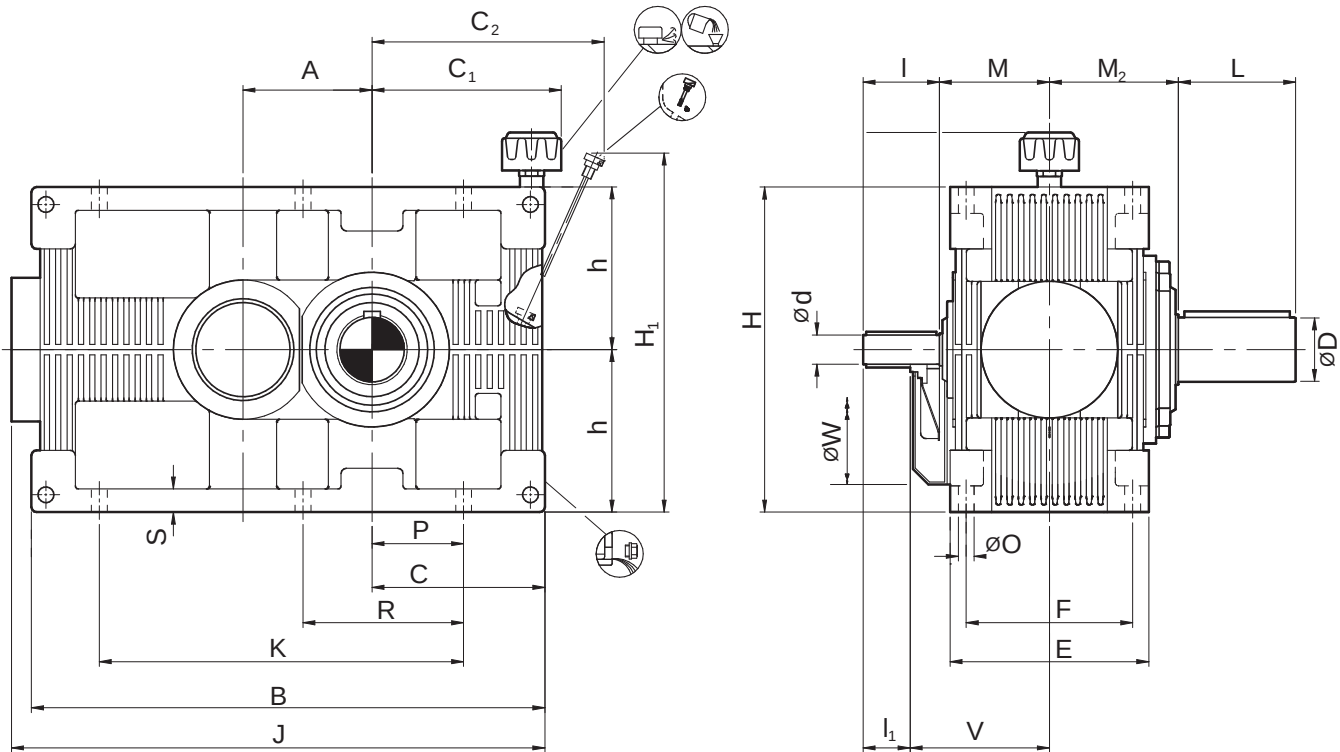
DIMENSIONS IN mm

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE H1HN

SINGLE STAGE - SIZE 11 TO 18

E



Size	Input Shaft									Output Shaft				
	i = 1.25 - 3.55			i = 4 - 5										
	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂		
H1..11	25	100	50	20	100	50	150	200	180	32	60	120	35	1.5
H1..13	35	110	60	30	110	60	150	200	180	45	90	125	65	2.5
H1..15	50	130	80	40	130	80	160	210	230	55	90	135	115	4
H1..17	60	155	105	50	130	80	165	215	300	70	125	150	205	7
H1..18	70	155	105	55	135	85	190	240	300	80	150	170	275	9

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

Modification of dimensions reserved.

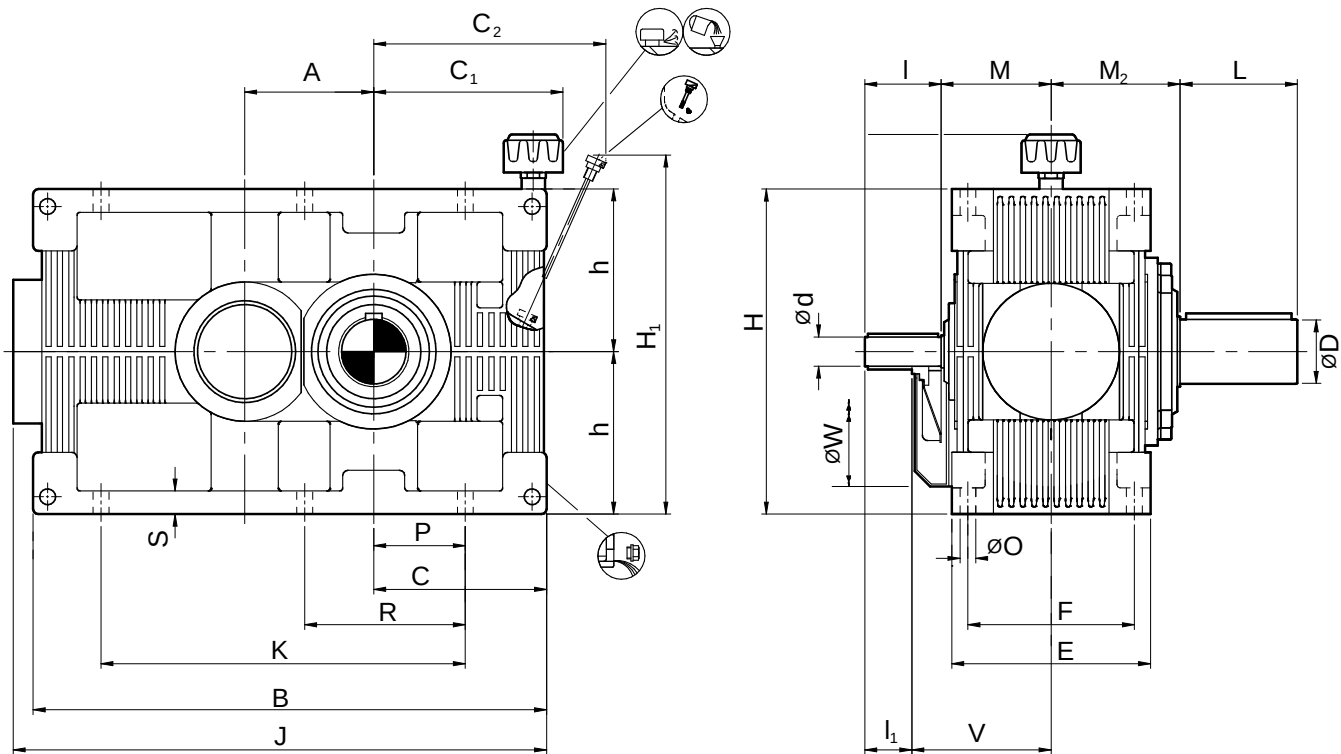
Shaft ends with keys according to DIN 6885, part 1, Shape A.

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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



Size	Input Shaft									Output Shaft				
	i = 1.25 - 3.55			i = 4 - 5										
	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂		
H1..11	0.98	3.94	1.97	0.79	3.94	1.97	4.33	6.30	7.09	1.26	2.36	4.33	77	0.4
H1..13	1.38	4.33	2.36	1.18	4.33	2.36	5.91	7.87	7.09	1.77	3.54	4.92	143	0.7
H1..15	1.97	5.12	3.15	1.57	5.12	3.15	6.30	8.27	9.06	2.17	3.54	5.31	254	1.5
H1..17	2.36	6.10	4.13	1.97	5.12	3.15	6.50	8.46	11.81	2.76	4.92	5.91	452	2.4
H1..18	2.76	6.10	4.13	2.17	5.31	3.35	7.48	9.45	11.81	3.15	5.91	6.69	606	4.0

Size	Foundation															
	A	B	C	C ₁ ²⁾	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ²⁾	J	K	O	P	R	S
H1..11	3.15	10.55	4.53	6.73	7.09	5.91	3.94	9.76	11.42	13.03	6.89	1.42	0.55	2.36	-	0.94
H1..13	3.94	13.74	5.31	7.68	7.48	5.91	4.92	11.61	13.39	16.34	8.66	1.46	0.55	2.95	-	0.94
H1..15	4.92	17.01	6.50	9.09	8.98	6.69	6.30	13.86	16.14	20.20	11.42	1.50	0.55	3.94	-	0.94
H1..17	6.30	21.10	8.07	11.10	9.84	8.27	7.87	17.01	18.90	25.08	13.78	1.89	0.71	4.72	-	1.26
H1..18	7.09	23.62	8.66	12.24	11.18	9.06	8.86	18.70	20.67	27.56	16.14	1.69	0.71	5.71	-	1.26

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

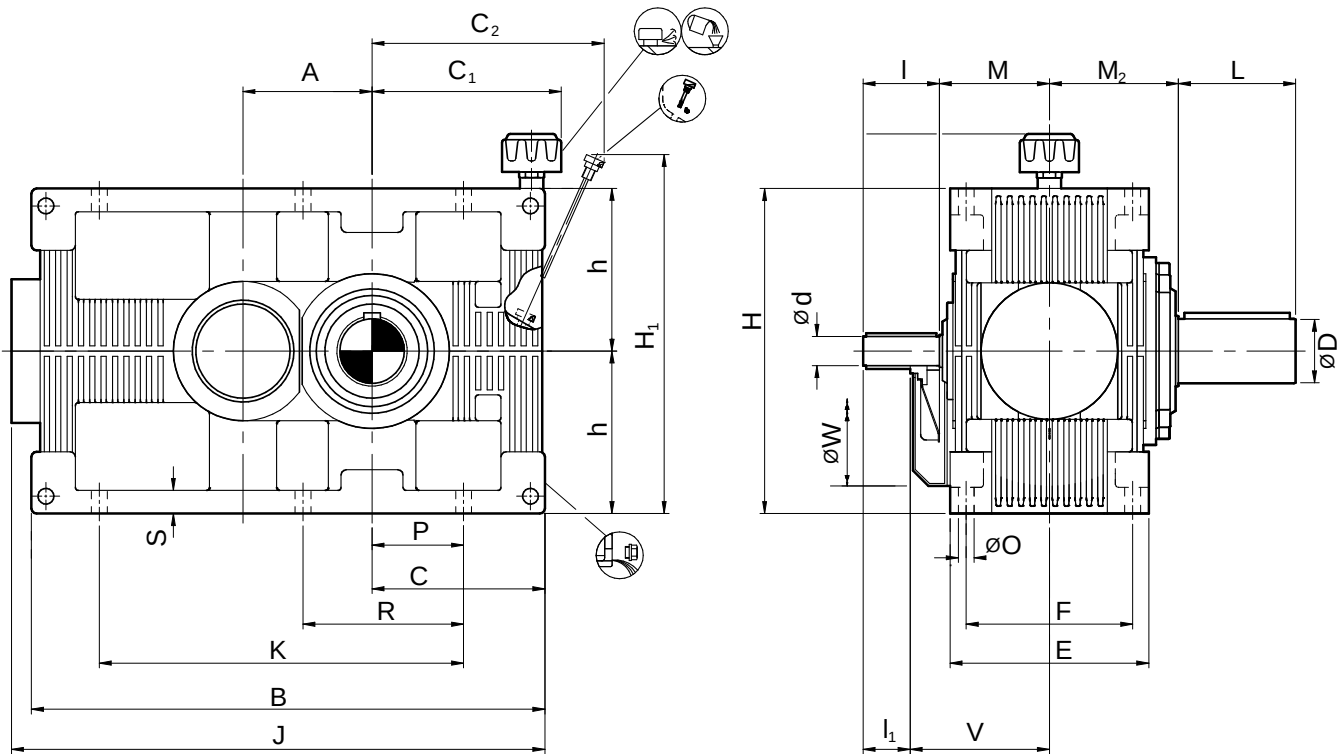
DIMENSIONS IN mm

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE H1HN

SINGLE STAGE - SIZE 20 TO 26

E



Size	Input Shaft									Output Shaft				
	i = 1.25 - 3.55			i = 4 - 5										
	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂		
H1..20	85	180	130	70	155	105	215	265	380	100	175	210	495	18
H1..21	95	180	130	80	180	130	260	310	530	110	180	220	665	25
H1..22	105	220	170	90	180	130	270	320	530	120	200	230	900	36
H1..23	115	220	170	95	180	130	280	330	650	140	225	260	1215	51
H1..24	130	250	200	110	220	170	320	370	650	160	260	295	1630	69
H1..25	145	250	200	120	220	170	360	410	650	170	270	305	2205	95
H1..26	160	300	250	130	250	200	360	410	650	190	300	345	2975	130

Size	Foundation															
	A	B	C	C ₁ ²⁾	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	J	K	O	P	R	S
H1..20	225	893	303	319	387	314	270	280	588	640	918	520	23	180	—	36
H1..21	250	995	335	374	435	385	310	315	664	720	1010	570	27	195	—	45
H1..22	280	1095	370	405	474	400	340	355	741	800	1110	630	27	215	370	45
H1..23	315	1250	425	442	537	450	380	400	831	890	1260	705	33	240	420	55
H1..24	355	1365	465	482	598	515	410	450	908	990	1380	810	33	280	480	55
H1..25	400	1505	510	528	670	535	460	500	1013	1090	1565	910	33	315	540	55
H1..26	450	1710	580	593	753	600	510	560	1137	1210	1765	1025	39	355	615	65

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

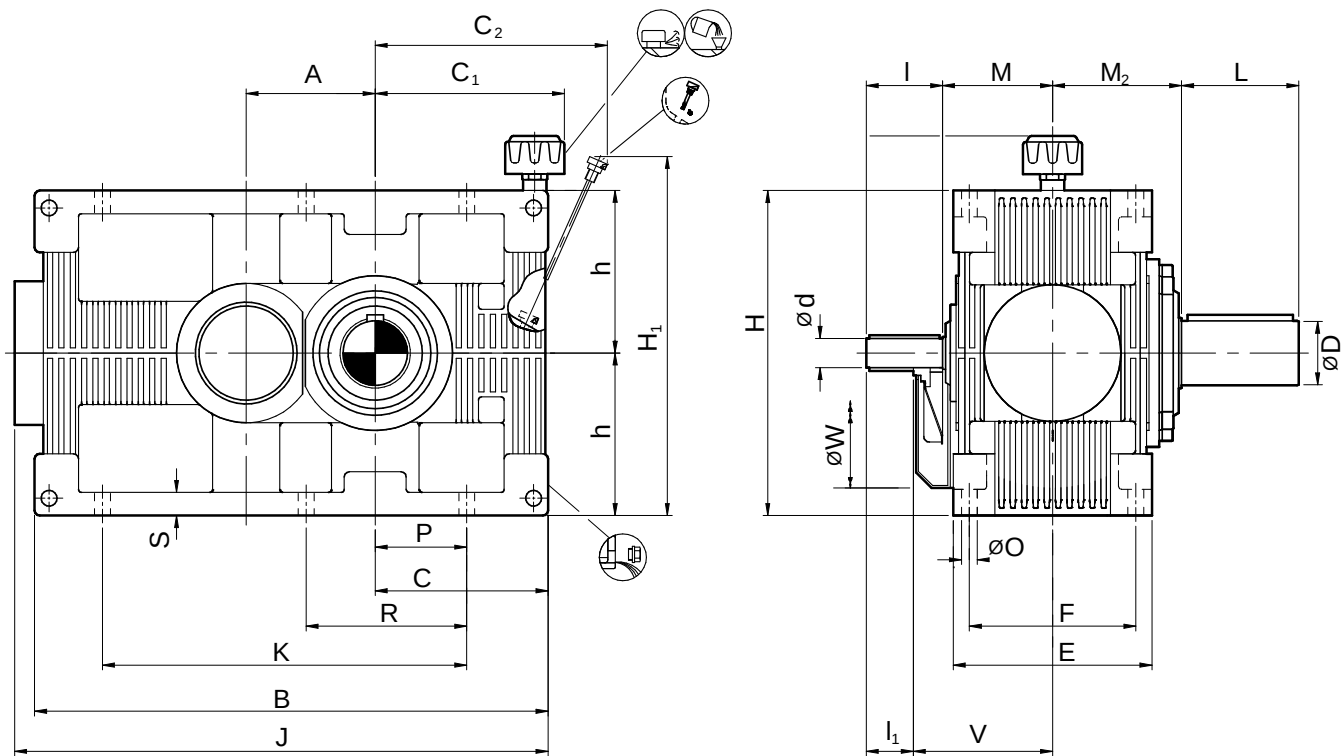
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE H1HN

SINGLE STAGE - SIZE 20 TO 26



Size	Input Shaft									Output Shaft				
	i = 1.25 - 3.55			i = 4 - 5										
	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂		
H1..20	3.35	7.09	5.12	2.76	6.10	4.13	8.46	10.43	14.96	3.94	6.89	8.27	705	6.6
H1..21	3.74	7.09	5.12	3.15	7.09	5.12	10.24	12.20	20.87	4.33	7.09	8.66	915	9.5
H1..22	4.13	8.66	6.69	3.54	7.09	5.12	10.63	12.60	20.87	4.72	7.87	9.06	1257	13.2
H1..23	4.53	8.66	6.69	3.74	7.09	5.12	11.02	12.99	20.87	5.51	8.86	10.24	1676	16.4
H1..24	5.12	9.84	7.87	4.33	8.66	6.69	12.60	14.57	20.87	6.30	10.24	11.61	2260	29.1
H1..25	5.71	9.84	7.87	4.72	8.66	6.69	14.17	16.14	23.62	6.69	10.63	12.01	3086	33.0
H1..26	6.30	11.81	9.84	5.12	9.84	7.87	14.17	16.14	23.62	7.48	11.81	13.58	4189	42.3

Size	Foundation															
	A	B	C	C ₁ ²⁾	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ²⁾	J	K	O	P	R	S
H1..20	8.86	29.72	10.83	15.24	12.36	10.63	11.02	23.15	24.41	35.04	20.47	2.13	0.91	7.09	0.00	1.42
H1..21	9.84	33.19	12.01	17.13	15.16	12.20	12.40	26.14	26.97	38.58	22.44	2.52	1.06	7.68	0.00	1.77
H1..22	11.02	36.81	13.39	18.66	15.75	13.39	13.98	29.17	29.92	42.52	24.80	2.95	1.06	8.46	14.57	1.77
H1..23	12.40	41.50	14.76	21.14	17.72	14.96	15.75	32.72	33.27	47.64	27.76	3.43	1.30	9.45	16.54	2.17
H1..24	13.98	46.02	16.73	23.54	20.28	16.14	17.72	35.75	37.01	52.76	31.89	3.43	1.30	11.02	18.90	2.17
H1..25	15.75	51.61	18.70	26.38	21.06	18.11	19.69	39.88	40.94	60.24	35.83	3.86	1.30	12.40	21.26	2.17
H1..26	17.72	58.11	21.06	29.65	23.62	20.08	22.05	44.76	45.28	67.72	40.35	4.25	1.54	13.98	24.21	2.56

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

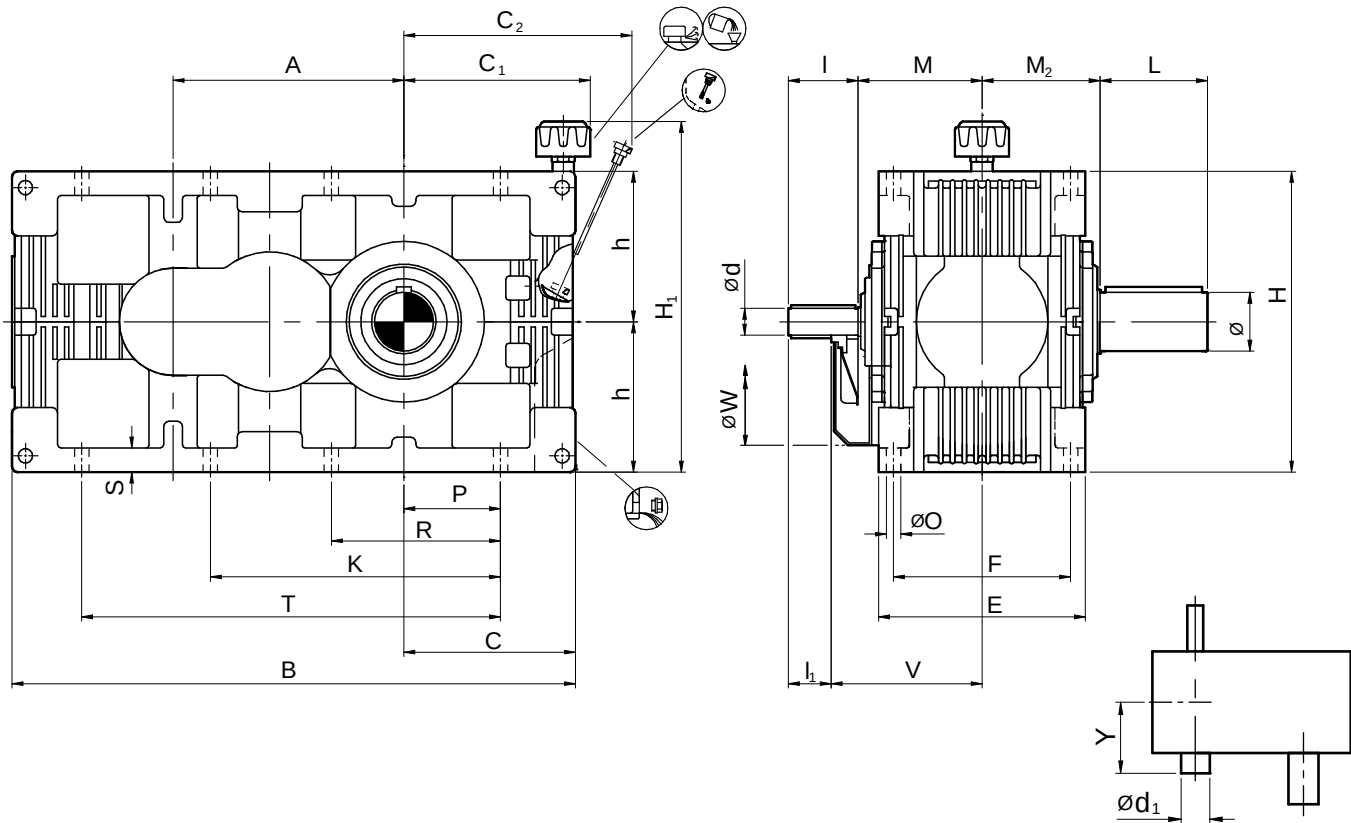
DIMENSIONS IN mm

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE H2H

DOUBLE STAGE - SIZE 14 TO 18

E



Size	Input Shaft												Output Shaft			Back Stop			
	i = 5.6 - 12.5			i = 14 - 18			i = 22.4												
	d	l	l ₁	d	l	l ₁													
H2..14	25	100	—	20	100	—	20	100	—	140	—	—	48	95	125	95	190	85	2
H2..15	30	110	—	25	100	—	—	—	—	155	—	—	55	95	135	110	210	115	3
H2..16	35	110	65	30	110	65	20	100	55	155	200	270	60	130	145	135	220	165	4
H2..17	45	130	85	35	110	65	25	100	55	160	205	300	70	135	150	140	230	220	5
H2..18	50	130	85	40	130	85	—	—	—	180	225	300	80	160	170	150	250	300	8

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

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

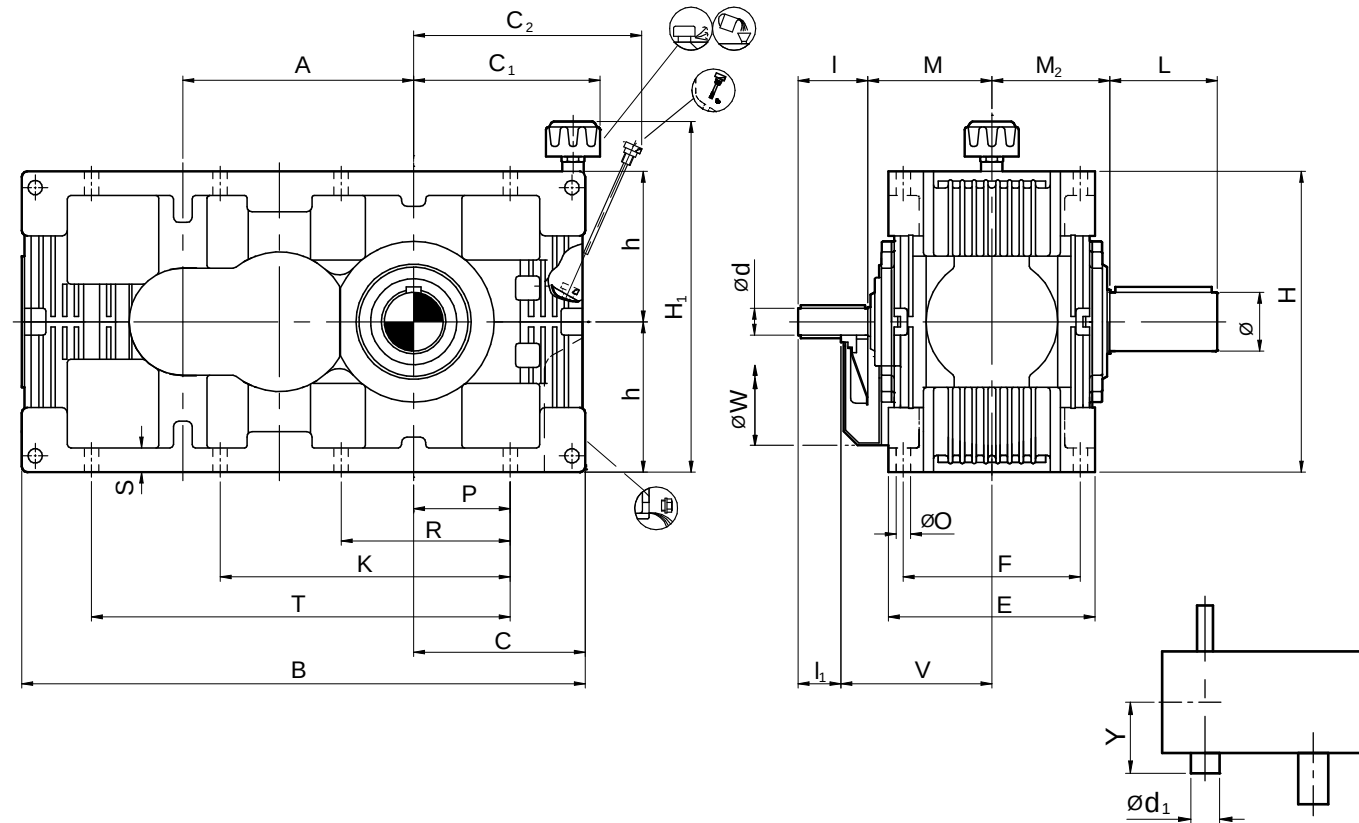
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE H2H

DOUBLE STAGE - SIZE 14 TO 18



Size	Input Shaft												Output Shaft			Back Stop			
	i = 5.6 - 12.5			i = 14 - 18			i = 22.4												
	i = 5.6 - 12.5			i = 14 - 20															
	d	l	l ₁	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂	d ₁ ¹⁾	Y ¹⁾		
H2..14	0.98	3.94		0.79	3.94		0.79	3.94		5.51			1.89	3.74	4.92	3.74	7.48	187	0.5
H2..15	1.18	4.33		0.98	3.94					6.10			2.17	3.74	5.31	4.33	8.27	254	0.8
H2..16	1.38	4.33	2.56	1.18	4.33	2.56	0.79	3.94	2.17	6.10	7.87	10.63	2.36	5.12	5.71	5.31	8.66	364	1.1
H2..17	1.77	5.12	3.35	1.38	4.33	2.56	0.98	3.94	2.17	6.30	8.07	11.81	2.76	5.31	5.91	5.51	9.06	485	1.3
H2..18	1.97	5.12	3.35	1.57	5.12	3.35				7.09	8.86	11.81	3.15	6.30	6.69	5.91	9.84	661	2.1

Size	Foundation															
	A	B	C	C ₁ ²⁾	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ²⁾	K	O	P	R	S	T
H2..14	7.48	19.21	6.38	7.80	7.64	7.48	5.91	4.92	10.94	12.99	-	0.55	3.15	5.51	0.94	12.20
H2..15	8.46	21.57	6.97	8.50	8.46	8.98	6.69	5.51	12.05	14.17	-	0.55	3.74	6.69	0.94	13.98
H2..16	9.45	24.21	7.68	11.34	9.09	9.17	7.48	6.30	12.87	15.75	-	0.55	4.33	7.68	0.94	15.75
H2..17	10.63	26.93	8.27	9.37	10.12	9.84	8.27	7.09	14.88	17.32	-	0.71	4.53	8.27	1.26	17.32
H2..18	12.01	30.08	9.29	10.35	11.06	11.18	9.06	7.87	15.91	18.90	-	0.71	5.31	9.45	1.26	19.88

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

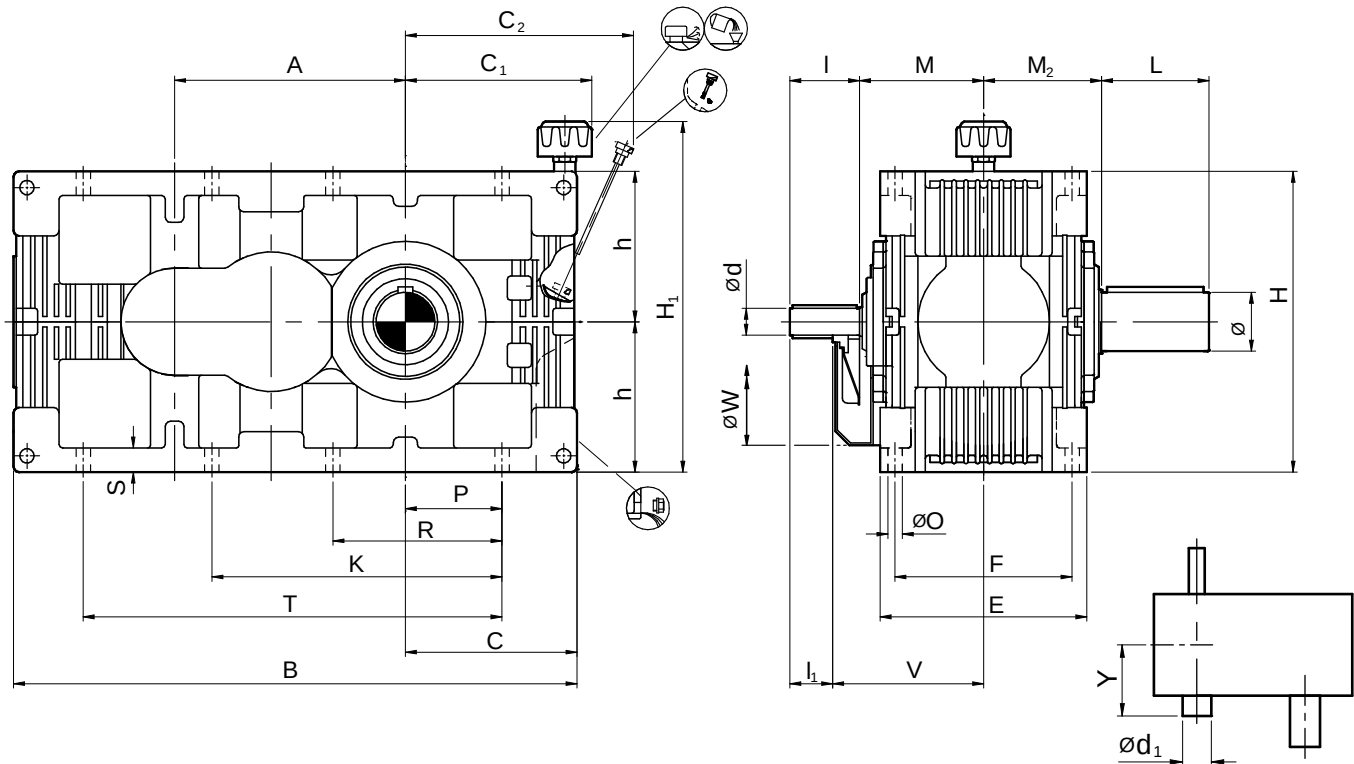
DIMENSIONS IN mm

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE H2H

DOUBLE STAGE - SIZE 19 TO 26

E



Size	Input Shaft												Output Shaft			Back Stop			
	i = 5.6 - 12.5			i = 14 - 18			i = 22.4												
	i = 5.6 - 12.5			i = 14 - 20															
	d	l	l ₁	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂	d ₁ ¹⁾	Y ¹⁾		
H2..19	55	135	85	45	130	80	35	110	60	195	245	320	90	165	180	175	280	405	11
H2..20	60	155	105	50	130	80	40	130	80	205	255	360	100	200	200	190	295	540	14
H2..21	70	155	105	55	135	85	—	—	—	245	295	360	110	200	220	210	335	735	21
H2..22	75	155	105	60	155	105	55	135	85	260	310	430	120	210	230	210	345	1015	29
H2..23	85	180	130	70	155	105	60	155	105	275	325	430	140	250	260	245	370	1365	42
H2..24	95	180	130	80	180	130	—	—	—	340	390	450	160	290	295	290	445	1845	60
H2..25	105	220	170	90	180	130	70	155	105	350	400	550	170	300	305	290	455	2515	85
H2..26	115	220	170	95	180	130	80	180	130	350	400	550	190	350	345	310	465	3390	115

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

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

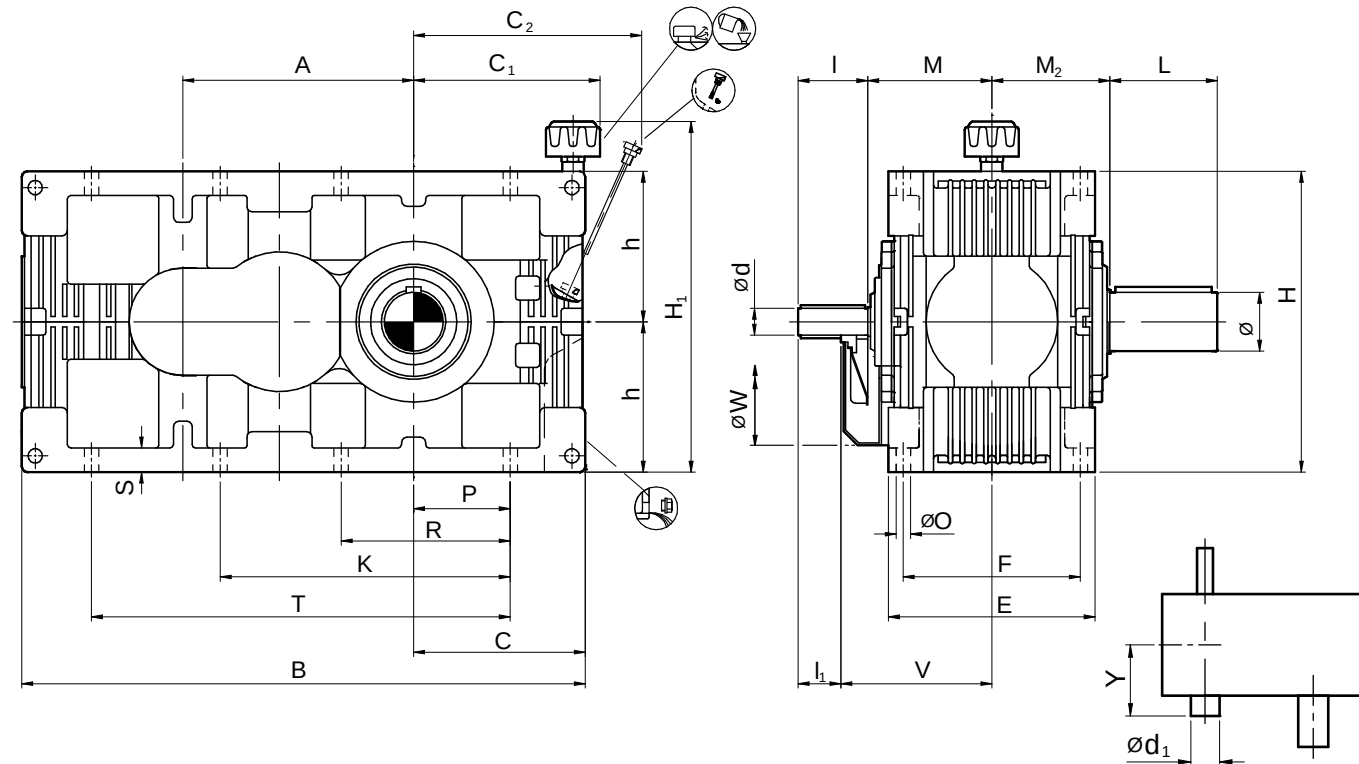
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE H2H

DOUBLE STAGE - SIZE 19 TO 26



Size	Input Shaft												Output Shaft			Back Stop			
	i = 5.6 - 12.5			i = 14 - 18			i = 22.4												
	i = 5.6 - 12.5			i = 14 - 20															
	d	l	l ₁	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂	d ₁ ¹⁾	Y ¹⁾		
H2..19	2.17	5.31	3.35	1.77	5.12	3.15	1.38	4.33	2.36	7.68	9.65	12.60	3.54	6.50	7.09	6.89	11.02	893	2.9
H2..20	2.36	6.10	4.13	1.97	5.12	3.15	1.57	5.12	3.15	8.07	10.04	14.17	3.94	7.87	7.87	7.48	11.61	1190	3.7
H2..21	2.76	6.10	4.13	2.17	5.31	3.35				9.65	11.61	14.17	4.33	7.87	8.66	8.27	13.19	1620	5.5
H2..22	2.95	6.10	4.13	2.36	6.10	4.13	2.17	5.31	3.35	10.24	12.20	16.93	4.72	8.27	9.06	8.27	13.58	2238	7.7
H2..23	3.35	7.09	5.12	2.76	6.10	4.13	2.36	6.10	4.13	10.83	12.80	16.93	5.51	9.84	10.24	9.65	14.57	3009	11.1
H2..24	3.74	7.09	5.12	3.15	7.09	5.12				13.39	15.35	17.72	6.30	11.42	11.61	11.42	17.52	4068	15.9
H2..25	4.13	8.66	6.69	3.54	7.09	5.12	2.76	6.10	4.13	13.78	15.75	21.65	6.69	11.81	12.01	11.42	17.91	5545	22.5
H2..26	4.53	8.66	6.69	3.74	7.09	5.12	3.15	7.09	5.12	13.78	15.75	21.65	7.48	13.78	13.58	12.20	18.31	7474	30.4

Size	Foundation																
	A	B	C	C ₁ ²⁾	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	K	O	P	R	S	T	
H2..19	13.39	33.46	10.43	11.14	12.40	11.93	9.84	8.86	17.91	20.87	-	0.91	5.71	10.04	1.42	21.85	
H2..20	15.16	37.20	11.34	11.97	13.58	12.36	10.63	9.84	19.53	22.83	-	0.91	6.50	11.42	1.42	25.00	
H2..21	16.93	41.34	12.60	14.13	15.51	15.16	12.20	11.02	22.52	25.59	-	1.06	7.09	12.40	1.77	27.76	
H2..22	18.90	46.06	13.98	15.35	16.89	15.75	13.39	12.40	25.00	28.35	-	1.06	7.87	13.98	1.77	30.91	
H2..23	21.26	52.56	15.94	16.61	18.94	17.72	14.96	13.98	27.76	31.50	-	1.30	8.66	15.94	2.17	34.45	
H2..24	23.82	57.68	17.13	17.80	21.30	20.28	16.14	15.75	31.30	35.04	-	1.30	9.65	17.72	2.17	38.39	
H2..25	26.77	63.19	18.70	19.41	23.27	21.06	18.11	17.72	34.06	38.98	-	1.30	11.02	20.08	2.17	43.50	
H2..26	30.12	71.65	21.26	21.77	25.94	23.62	20.08	19.69	37.56	42.91	37.01	1.54	12.40	22.64	2.56	49.02	

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

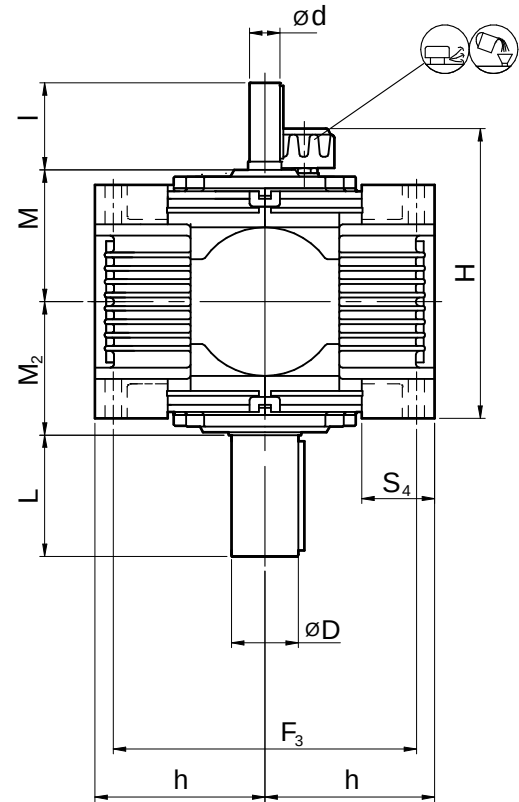
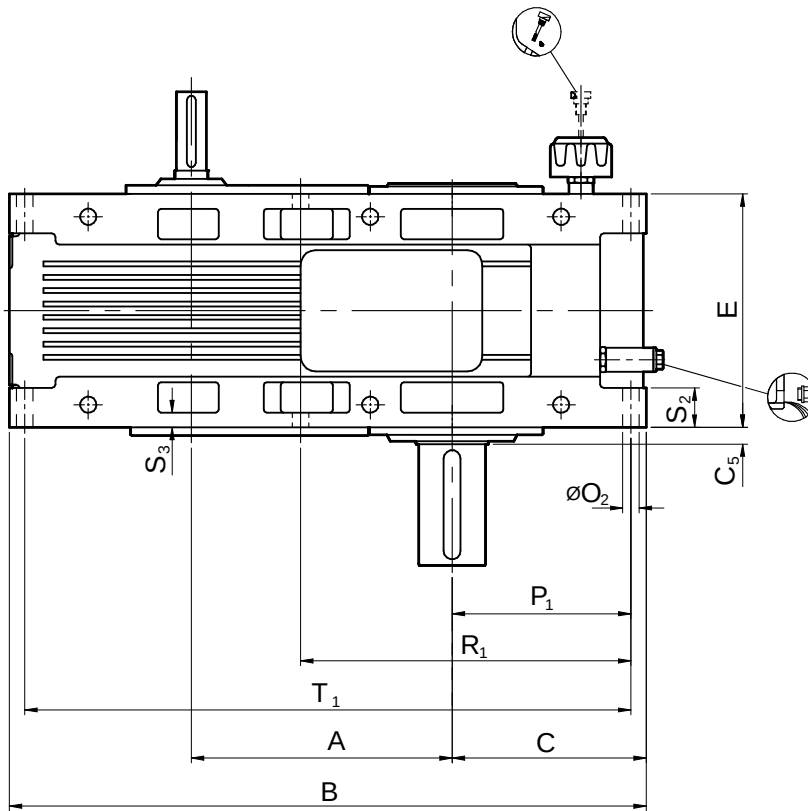
DIMENSIONS IN mm

VERTICAL MOUNTING - HELICAL GEAR UNIT

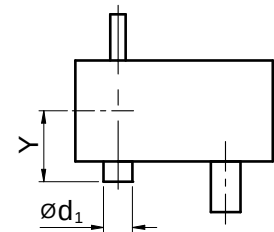
TYPE H2V

DOUBLE STAGE - SIZE 14 TO 18

E



Size	Input Shaft												
	i = 5.6 - 12.5		i = 14 - 18					Output Shaft			Back Stop		
	i = 5.6 - 12.5		i = 14 - 20										
	d	l	d	l	d	l	M	D	L	M ₂	d ₁ ¹⁾	Y ¹⁾	
H2..14	25	100	20	100	20	100	140	48	95	125	95	190	85
H2..15	30	110	25	100	—	—	155	55	95	135	110	210	115
H2..16	35	110	30	110	20	100	155	60	130	145	135	220	165
H2..17	45	130	35	110	25	100	160	70	135	150	140	230	220
H2..18	50	130	40	130	—	—	180	80	160	170	150	250	300



Size	Foundation															
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T ₁	
H2..14	190	488	162	30	190	200	125	270	14	146	292	36	-	70	456	
H2..15	215	548	177	21	228	230	140	308	14	160	285	45	15	70	515	
H2..16	240	615	195	28.50	233	270	160	313	14	176	316	38	15	70	578	
H2..17	270	684	210	25	250	310	180	330	18	190	350	40	20	95	645	
H2..18	305	764	236	28	284	350	200	364	18	215	395	45	20	90	722	

Modification of dimensions reserved.

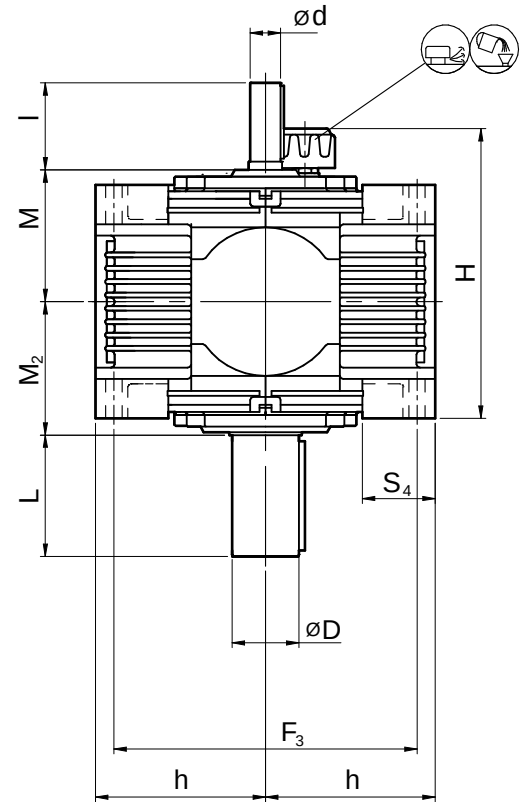
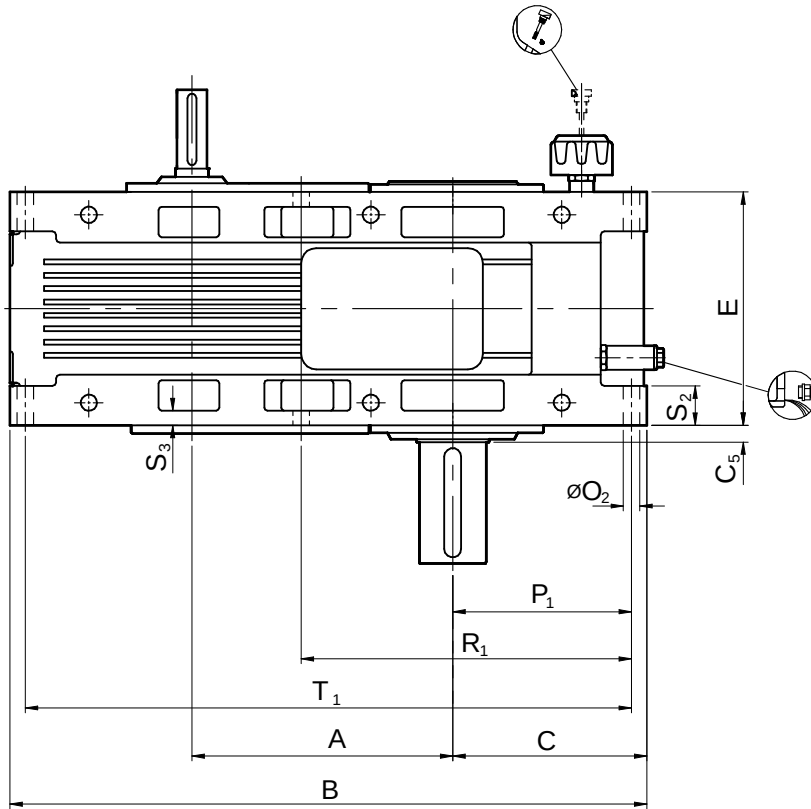
Shaft ends with keys according to DIN 6885, part 1, Shape A.

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

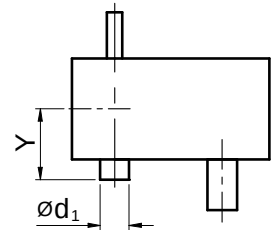
Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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



Size	Input Shaft												 lbs	
	i = 5.6 - 12.5		i = 14 - 18						Output Shaft			Back Stop		
	i = 5.6 - 12.5		i = 14 - 20		i = 22.4									
	d	l	d	l	d	l	M	D	L	M ₂	d ₁ ¹⁾	Y ¹⁾		
H2..14	0.98	3.94	0.79	3.94	0.79	3.94	5.51	1.89	3.74	4.92	3.74	7.48	187	
H2..15	1.18	4.33	0.98	3.94			6.10	2.17	3.74	5.31	4.33	8.27	254	
H2..16	1.38	4.33	1.18	4.33	0.79	3.94	6.10	2.36	5.12	5.71	5.31	8.66	364	
H2..17	1.77	5.12	1.38	4.33	0.98	3.94	6.30	2.76	5.31	5.91	5.51	9.06	485	
H2..18	1.97	5.12	1.57	5.12			7.09	3.15	6.30	6.69	5.91	9.84	661	



Size	Foundation														
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T ₁
H2..14	7.48	19.21	6.38	1.18	7.48	7.87	4.92	10.63	0.55	5.75	11.50	1.42	-	2.76	17.95
H2..15	8.46	21.57	6.97	0.83	8.98	9.06	5.51	12.13	0.55	6.30	11.22	1.77	0.59	2.76	20.28
H2..16	9.45	24.21	7.68	1.12	9.17	10.63	6.30	12.32	0.55	6.93	12.44	1.50	0.59	2.76	22.76
H2..17	10.63	26.93	8.27	0.98	9.84	12.20	7.09	12.99	0.71	7.48	13.78	1.57	0.79	3.74	25.39
H2..18	12.01	30.08	9.29	1.10	11.18	13.78	7.87	14.33	0.71	8.46	15.55	1.77	0.79	3.54	28.43

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

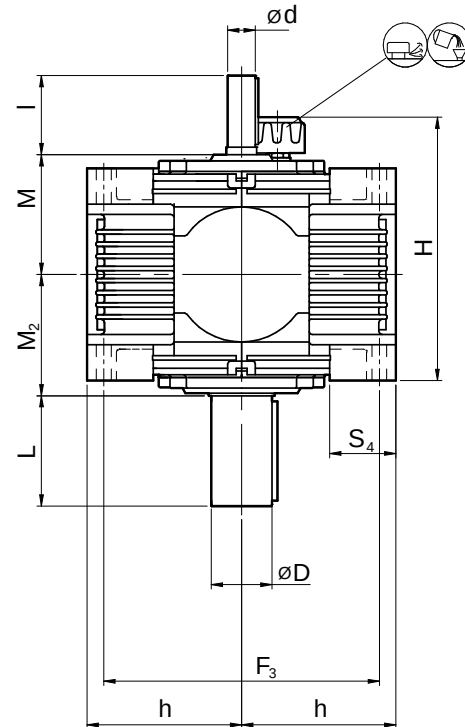
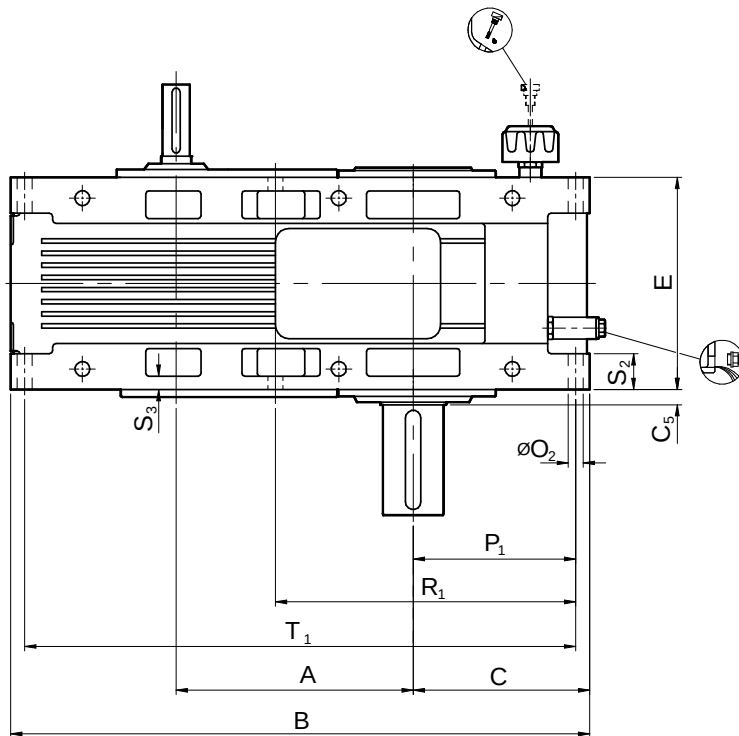
DIMENSIONS IN mm

VERTICAL MOUNTING - HELICAL GEAR UNIT

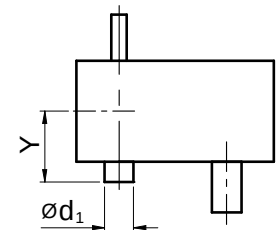
TYPE H2V

DOUBLE STAGE - SIZE 19 TO 26

E



Size	Input Shaft							Output Shaft						
	i = 5.6 - 12.5		i = 14 - 18		i = 22.4					Output Shaft		Back Stop		
	i = 5.6 - 12.5		i = 14 - 20											
d	l	d	l	d	l	M	D	L	M ₂	d ₁ ¹⁾	Y ¹⁾			
H2..19	55	135	45	130	35	110	195	90	165	180	175	280	405	
H2..20	60	155	50	130	40	130	205	100	200	200	190	295	540	
H2..21	70	155	55	135	—	—	245	110	200	220	210	335	735	
H2..22	75	155	60	155	55	135	260	120	210	230	210	345	1015	
H2..23	85	180	70	155	60	155	275	140	250	260	245	370	1365	
H2..24	95	180	80	180	—	—	340	160	290	295	290	445	1845	
H2..25	105	220	90	180	70	155	350	170	300	305	290	455	2515	
H2..26	115	220	95	180	80	180	350	190	350	345	310	465	3390	



Size	Foundation														
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T ₁
H2..19	340	850	265	28.50	303	400	225	383	23	240	440	48.5	22	105	800
H2..20	385	945	288	43	314	440	250	394	23	262	487	45	24	105	893
H2..21	430	1050	320	27.5	385	500	280	475	27	295	545	65	28	120	1000
H2..22	480	1170	355	30	400	560	315	490	27	325	605	60	28	120	1110
H2..23	540	1335	405	35	450	630	355	540	33	370	685	70	35	150	1265
H2..24	605	1465	435	37.5	515	700	400	605	33	398	753	87.5	35	150	1391
H2..25	680	1605	475	37.5	535	800	450	625	33	436	836	80	35	150	1528
H2..26	765	1820	540	45	600	890	500	700	39	495	945	100	45	175	1730

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

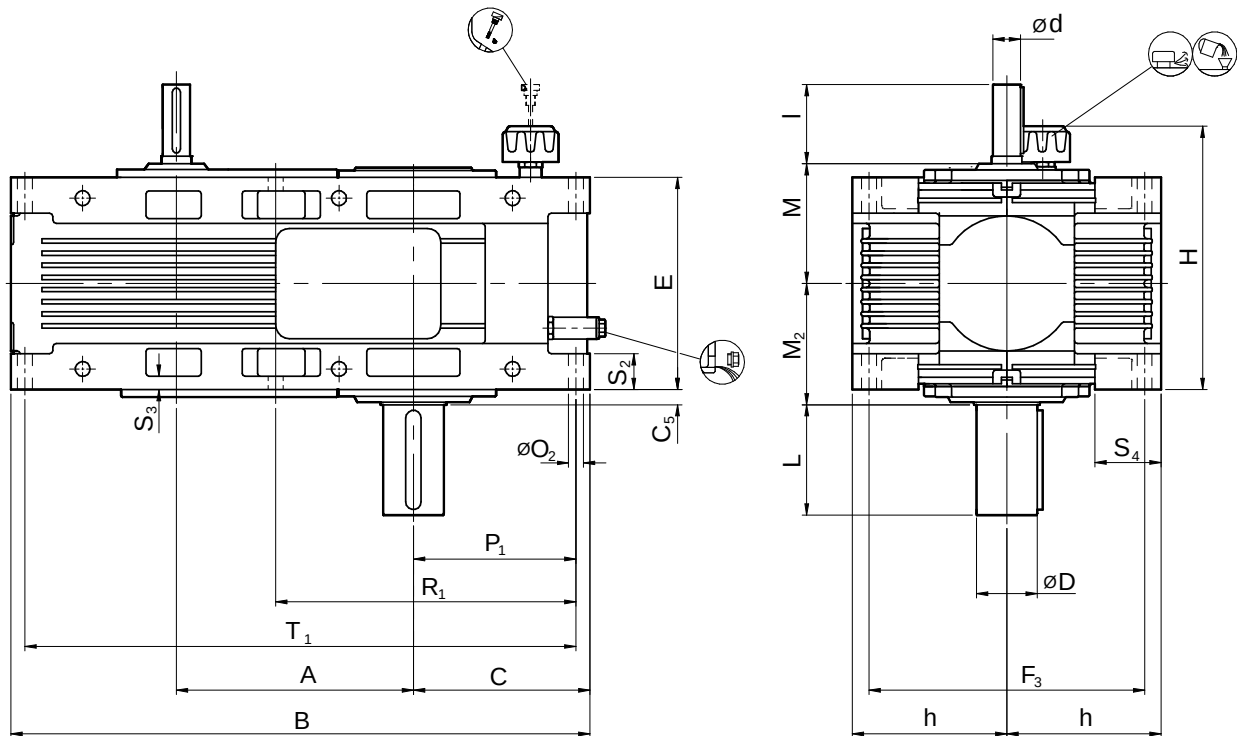
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

VERTICAL MOUNTING - HELICAL GEAR UNIT

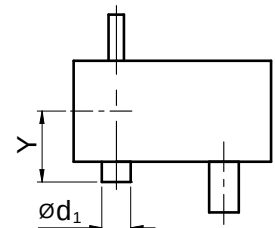
TYPE H2V

DOUBLE STAGE - SIZE 19 TO 26



E

Size	Input Shaft							Output Shaft					
	i = 5.6 - 12.5		i = 14 - 18							Back Stop			
	i = 5.6 - 12.5		i = 14 - 20		i = 22.4								
	d	l	d	l	d	l	M	D	L	M ₂	d ₁ ¹⁾	Y ¹⁾	
H2..19	2.17	5.31	1.77	5.12	1.38	4.33	7.68	3.54	6.50	7.09	6.89	11.02	893
H2..20	2.36	6.10	1.97	5.12	1.57	5.12	8.07	3.94	7.87	7.87	7.48	11.61	1190
H2..21	2.76	6.10	2.17	5.31	0.00	0.00	9.65	4.33	7.87	8.66	8.27	13.19	1620
H2..22	2.95	6.10	2.36	6.10	2.17	5.31	10.24	4.72	8.27	9.06	8.27	13.58	2238
H2..23	3.35	7.09	2.76	6.10	2.36	6.10	10.83	5.51	9.84	10.24	9.65	14.57	3009
H2..24	3.74	7.09	3.15	7.09	0.00	0.00	13.39	6.30	11.42	11.61	11.42	17.52	4068
H2..25	4.13	8.66	3.54	7.09	2.76	6.10	13.78	6.69	11.81	12.01	11.42	17.91	5545
H2..26	4.53	8.66	3.74	7.09	3.15	7.09	13.78	7.48	13.78	13.58	12.20	18.31	7474



Size	Foundation														
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T ₁
H2..19	13.39	33.46	10.43	1.12	11.93	15.75	8.86	15.08	0.91	9.45	17.32	1.91	0.87	4.13	31.50
H2..20	15.16	37.20	11.34	1.69	12.36	17.32	9.84	15.51	0.91	10.31	19.17	1.77	0.94	4.13	35.16
H2..21	16.93	41.34	12.60	1.08	15.16	19.69	11.02	18.70	1.06	11.61	21.46	2.56	1.10	4.72	39.37
H2..22	18.90	46.06	13.98	1.18	15.75	22.05	12.40	19.29	1.06	12.80	23.82	2.36	1.10	4.72	43.70
H2..23	21.26	52.56	15.94	1.38	17.72	24.80	13.98	21.26	1.30	14.57	26.97	2.76	1.38	5.91	49.80
H2..24	23.82	57.68	17.13	1.48	20.28	27.56	15.75	23.82	1.30	15.67	29.65	3.44	1.38	5.91	54.76
H2..25	26.77	63.19	18.70	1.48	21.06	31.50	17.72	24.61	1.30	17.17	32.91	3.15	1.38	5.91	60.16
H2..26	30.12	71.65	21.26	1.77	23.62	35.04	19.69	27.56	1.42	19.49	37.20	3.94	1.77	6.89	68.11

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

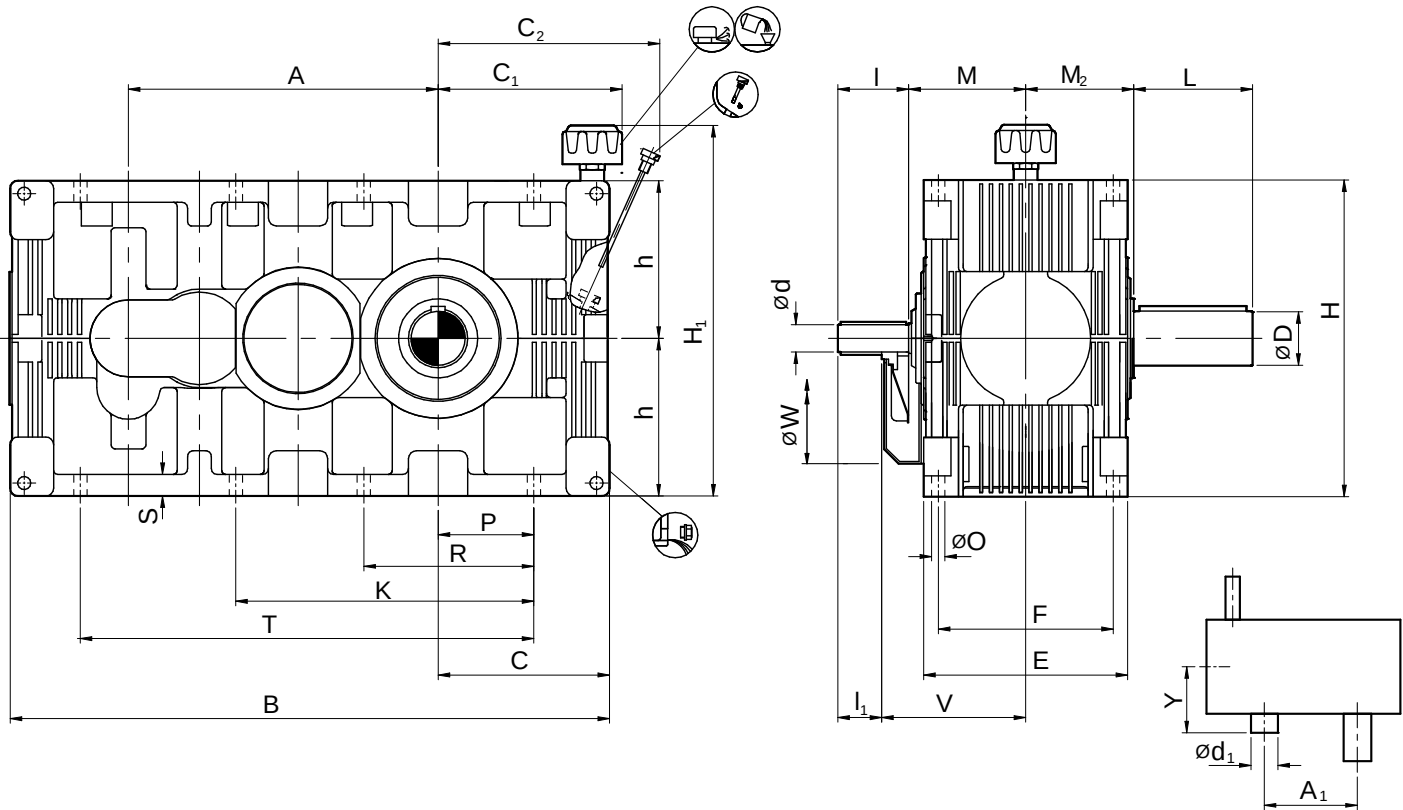
DIMENSIONS IN mm

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE H3H

TRIPLE STAGE - SIZE 16 TO 18

E



Size	Input Shaft												Output Shaft			Back Stop				
	i = 20-50			i = 56-80			i = 112													
	i = 25-63			i = 71-100																
	i = 25-71			i = 80-100																
	d	l	l ₁	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
H3..16	24	100	50	19	100	50	19	100	50	155	200	270	60	130	145	240	95	215	180	6.5
H3..17	28	100	50	24	100	50	19	100	50	160	205	270	70	135	150	270	95	215	240	8
H3..18	30	110	60	25	100	50	—	—	—	180	225	300	80	160	170	305	140	265	325	10

Size	Foundation															
	A	B	C	C ₁ ²⁾	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ²⁾	K	O	P	R	S	T
H3..16	311	631	175	231	195	233	190	160	327	400	—	14	110	195	24	450
H3..17	350	696	190	257	210	250	210	180	378	440	—	18	115	210	32	495
H3..18	395	787	215	281	236	284	230	200	404	480	—	18	135	240	32	565

Modification of dimensions reserved.

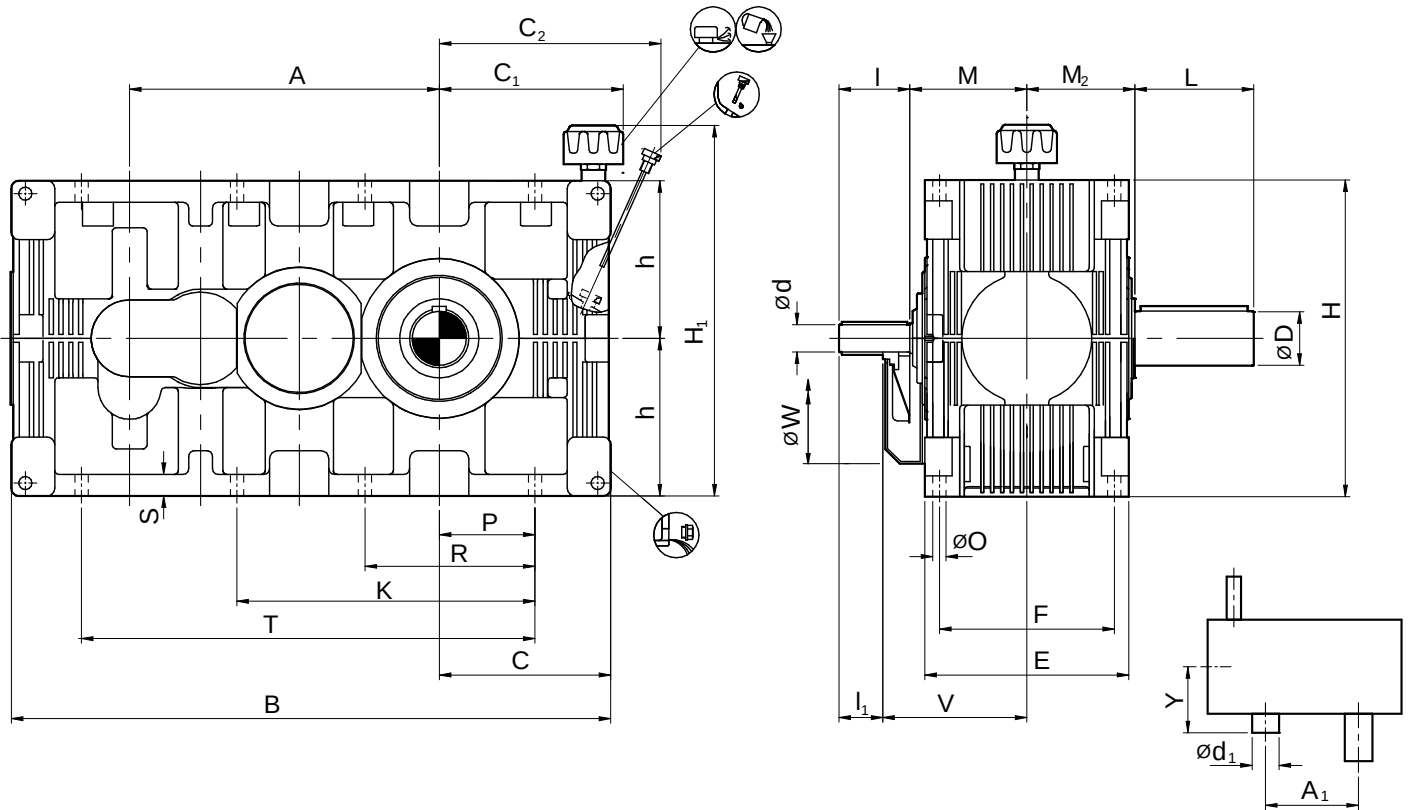
Shaft ends with keys according to DIN 6885, part 1, Shape A.

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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



Size	Input Shaft												Output Shaft			Back Stop				
	i = 20-50			i = 56-80			i = 112													
	i = 25-63			i = 71-100																
	i = 25-71			i = 80-100																
	d	l	l ₁	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
H3..16	0.94	3.94	1.97	0.75	3.94	1.97	0.75	3.94	1.97	6.10	8.07	10.63	2.36	5.12	5.71	9.45	3.74	8.46	397	1.7
H3..17	1.10	3.94	1.97	0.94	3.94	1.97	0.75	3.94	1.97	6.30	8.27	10.63	2.76	5.31	5.91	10.63	3.74	8.46	529	2.1
H3..18	1.18	4.33	2.36	0.98	3.94	1.97	0.00	0.00	0.00	7.09	9.06	11.81	3.15	6.30	6.69	12.01	5.51	10.43	717	2.6

Size	Foundation															
	A	B	C	C ₁ ²⁾	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	K	O	P	R	S	T
H3..16	12.24	24.84	7.68	8.98	9.09	9.17	7.48	6.30	12.87	15.75	-	0.55	4.33	7.68	0.94	17.72
H3..17	13.78	27.40	8.27	9.37	10.12	9.84	8.27	7.09	14.88	17.32	-	0.71	4.53	8.27	1.26	19.49
H3..18	15.55	30.98	9.29	10.35	11.06	11.18	9.06	7.87	15.91	18.90	-	0.71	5.31	9.45	1.26	22.24

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

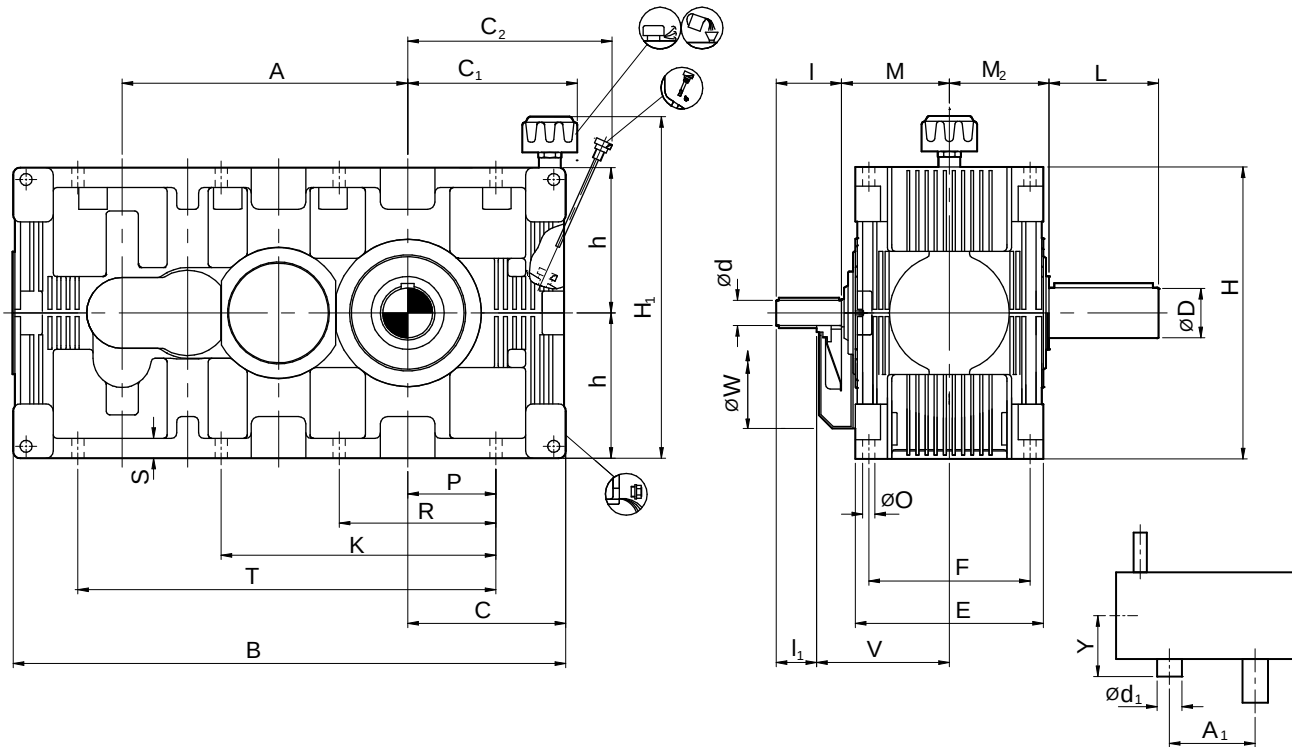
DIMENSIONS IN mm

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE H3H

TRIPLE STAGE - SIZE 19 TO 26

E



Size	Input Shaft												Output Shaft			Back Stop				
	i = 20-50			i = 56-80			i = 112													
	i = 25-63			i = 71-100																
	i = 25-71			i = 80-100																
	d	l	l ₁	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
H3..19	35	110	60	30	110	60	25	100	50	190	240	320	90	165	180	340	150	265	445	14
H3..20	45	130	80	35	110	60	25	100	50	195	245	360	100	200	200	385	150	265	610	22
H3..21	50	130	80	40	130	80	—	—	—	240	290	360	110	200	220	430	190	340	810	28
H3..22	55	135	85	45	130	80	35	110	60	250	300	430	120	210	230	480	190	340	1080	39
H3..23	60	155	105	50	130	80	40	130	80	270	320	430	140	250	260	540	190	340	1455	56
H3..24	70	155	105	55	135	85	—	—	—	325	375	450	160	290	295	605	245	440	1950	80
H3..25	75	155	105	60	155	105	50	130	80	335	385	450	170	300	305	680	245	440	2655	115
H3..26	85	180	130	70	155	105	70	155	105	350	400	450	190	350	345	765	245	440	3525	165

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

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

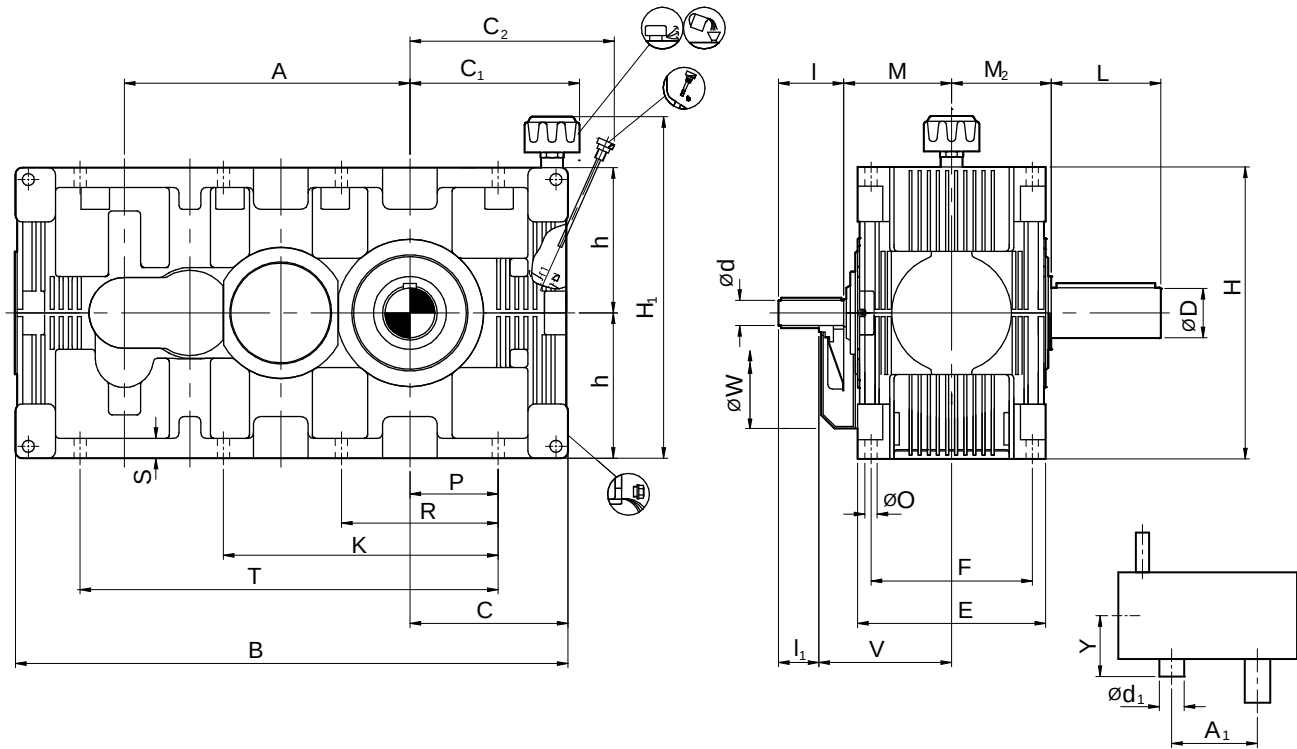
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE H3H

TRIPLE STAGE - SIZE 19 TO 26



Size	Input Shaft												Output Shaft			Back Stop				
	i = 20-50			i = 56-80			i = 112													
	i = 25-63			i = 71-100																
	i = 25-71			i = 80-100																
d	l	l ₁	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾			
H3..19	1.38	4.33	2.36	1.18	4.33	2.36	0.98	3.94	1.97	7.48	9.45	12.60	3.54	6.50	7.09	13.39	5.91	10.43	981	3.7
H3..20	1.77	5.12	3.15	1.38	4.33	2.36	0.98	3.94	1.97	7.68	9.65	14.17	3.94	7.87	7.87	15.16	5.91	10.43	1345	5.8
H3..21	1.97	5.12	3.15	1.57	5.12	3.15				9.45	11.42	14.17	4.33	7.87	8.66	16.93	7.48	13.39	1786	7.4
H3..22	2.17	5.31	3.35	1.77	5.12	3.15	1.38	4.33	2.36	9.84	11.81	16.93	4.72	8.27	9.06	18.90	7.48	13.39	2381	10.3
H3..23	2.36	6.10	4.13	1.97	5.12	3.15	1.57	5.12	3.15	10.63	12.60	16.93	5.51	9.84	10.24	21.26	7.48	13.39	3208	14.8
H3..24	2.76	6.10	4.13	2.17	5.31	3.35				12.80	14.76	17.72	6.30	11.42	11.61	23.82	9.65	17.32	4299	21.1
H3..25	2.95	6.10	4.13	2.36	6.10	4.13	1.97	5.12	3.15	13.19	15.16	17.72	6.69	11.81	12.01	26.77	9.65	17.32	5853	30.4
H3..26	3.35	7.09	5.12	2.76	6.10	4.13	2.76	6.10	4.13	13.78	15.75	17.72	7.48	13.78	13.58	30.12	9.65	17.32	7771	43.6

Size	Foundation															
	A	B	C	C ₁ ²⁾	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	K	O	P	R	S	T
H3..19	17.32	34.84	10.43	11.14	12.40	11.93	9.84	8.86	17.91	20.87		0.91	5.71	10.04	1.42	24.21
H3..20	19.49	38.86	11.34	11.97	13.58	12.36	10.63	9.84	19.53	22.83		0.91	6.50	11.42	1.42	27.76
H3..21	21.85	43.23	12.60	14.13	15.51	15.16	12.20	11.02	22.52	25.59		1.06	7.09	12.40	1.77	30.71
H3..22	24.41	48.03	13.98	15.35	16.89	15.75	13.39	12.40	25.00	28.35		1.06	7.87	13.98	1.77	34.65
H3..23	27.56	54.21	15.94	16.61	18.94	17.72	14.96	13.98	27.76	31.50	25.79	1.30	8.66	15.94	2.17	38.78
H3..24	30.91	59.84	17.13	17.80	21.30	20.28	16.14	15.75	31.30	35.04	29.13	1.30	9.65	17.72	2.17	43.70
H3..25	34.65	66.54	18.70	19.41	23.27	21.06	18.11	17.72	34.06	38.98	33.07	1.30	11.02	20.08	2.17	49.02
H3..26	38.98	75.59	21.26	21.77	25.94	23.62	20.08	19.69	37.56	42.91	37.01	1.54	12.40	22.64	2.56	55.12

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

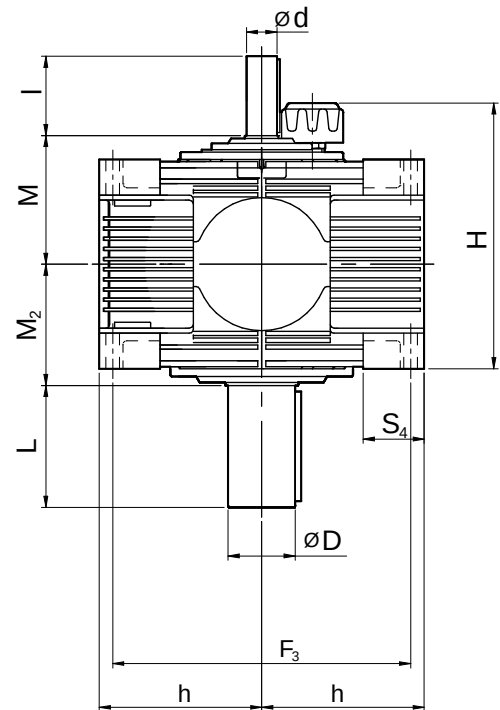
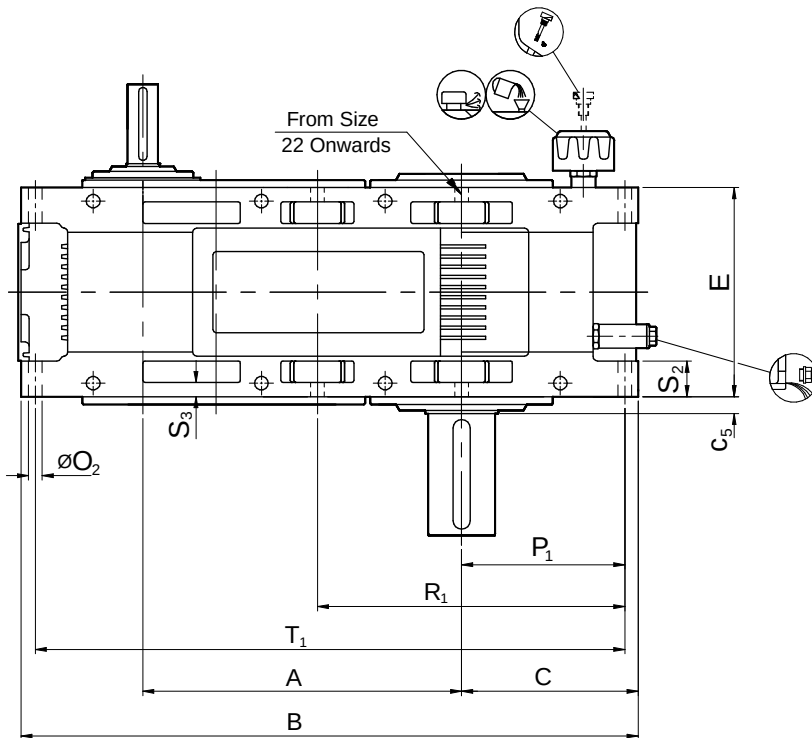
DIMENSIONS IN mm

VERTICAL MOUNTING - HELICAL GEAR UNIT

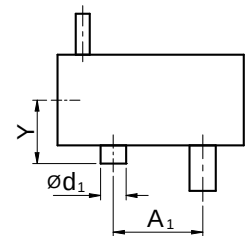
TYPE H3V

TRIPLE STAGE - SIZE 16 TO 18

E



Size	Input Shaft							Output Shaft			Back Stop			
	i = 20-50		i = 56-80											
	i = 25-63		i = 71-100											
	i = 25-71		i = 80-100											
d	l	d	l	d	l	M	D	L	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
H3..16	24	100	19	100	19	100	155	60	130	145	240	95	215	180
H3..17	28	100	24	100	19	100	160	70	135	150	270	95	215	240
H3..18	30	110	25	100	—	—	180	80	160	170	305	140	265	325



Size	Foundation															
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T ₁	
H3..16	311	631	195	28.50	233	270	160	313	14	176	316	38	15	70	594	
H3..17	350	696	210	25	250	310	180	330	18	190	350	40	20	90	655	
H3..18	395	787	236	28	284	350	200	364	18	215	395	45	20	90	744	

Modification of dimensions reserved.

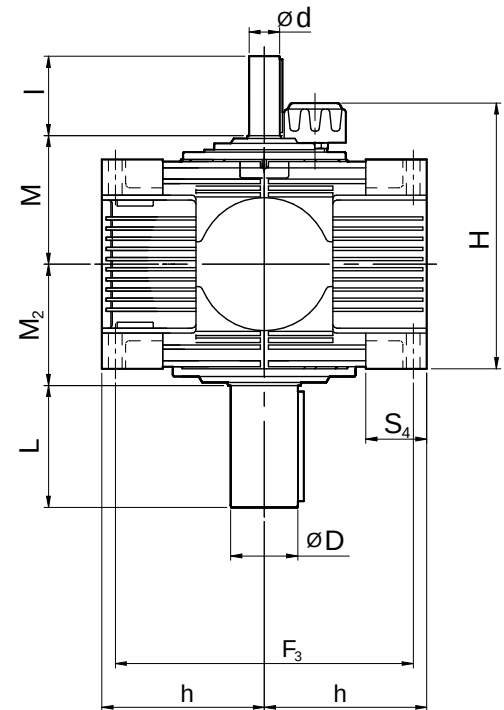
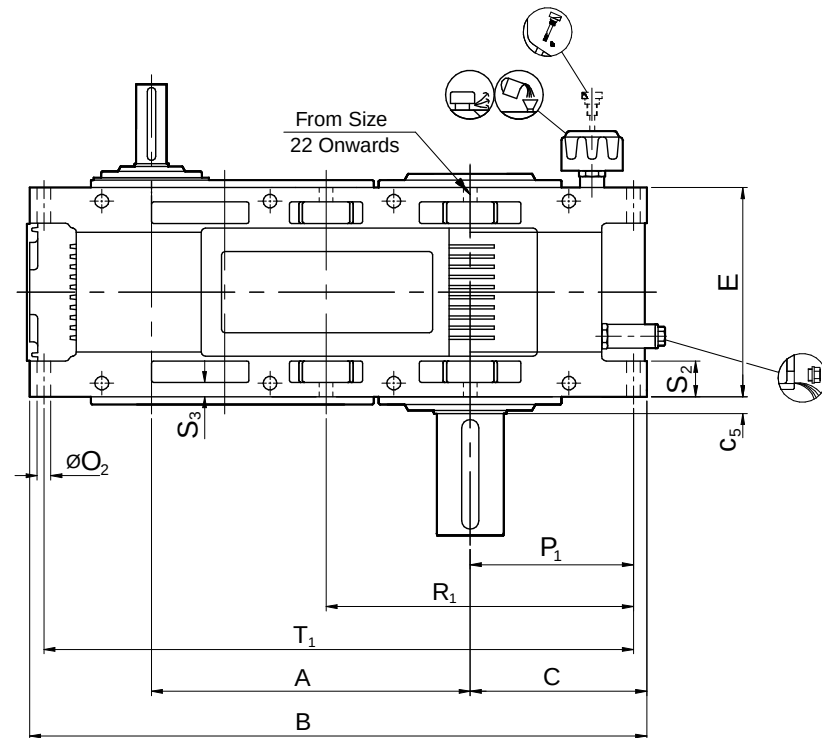
Shaft ends with keys according to DIN 6885, part 1, Shape A.

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

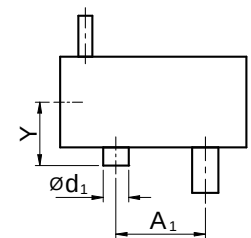
Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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



Size	Input Shaft							Output Shaft			Back Stop			 lbs
	i = 20-50		i = 56-80		i = 112									
	i = 25-63		i = 71-100											
	i = 25-71		i = 80-100											
	d	l	d	l	d	l	M	D	L	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾	
H3..16	0.94	3.94	0.75	3.94	0.75	3.94	6.10	2.36	5.12	5.71	9.45	3.74	8.46	397
H3..17	1.10	3.94	0.94	3.94	0.75	3.94	6.30	2.76	5.31	5.91	10.63	3.74	8.46	529
H3..18	1.18	4.33	0.98	3.94			7.09	3.15	6.30	6.69	12.01	5.51	10.43	717



Size	Foundation															
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T ₁	
H3..16	12.24	24.84	7.68	1.12	9.17	10.63	6.30	12.32	0.55	6.93	12.44	1.50	0.59	2.76	23.39	
H3..17	13.78	27.40	8.27	0.98	9.84	12.20	7.09	12.99	0.71	7.48	13.78	1.57	0.79	3.54	25.79	
H3..18	15.55	30.98	9.29	1.10	11.18	13.78	7.87	14.33	0.71	8.46	15.55	1.77	0.79	3.54	29.29	

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

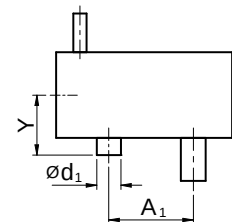
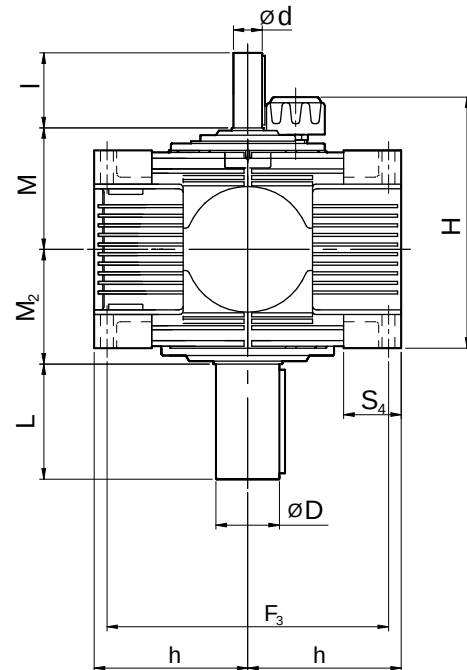
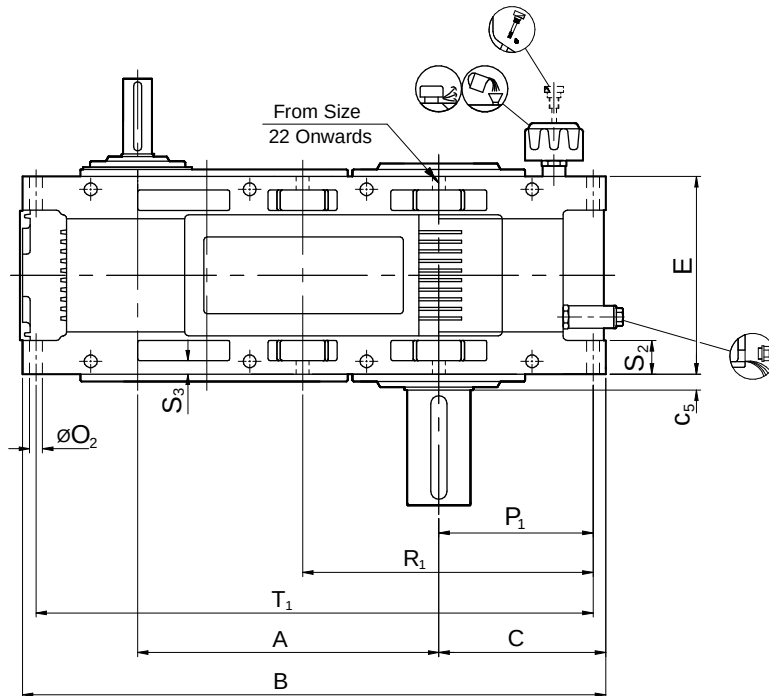
DIMENSIONS IN mm

VERTICAL MOUNTING - HELICAL GEAR UNIT

TYPE H3V

TRIPLE STAGE - SIZE 19 TO 26

E



Size	Input Shaft							Output Shaft			Back Stop			 KG	
	i = 20-50		i = 56-80		i = 112		M								
	i = 25-63		i = 71-100												
	i = 25-71		i = 80-100												
	d	l	d	l	d	l	D	L	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾			
H3..19	35	110	30	110	25	100	190	90	165	180	340	150	265	445	
H3..20	45	130	35	110	25	100	195	100	200	200	385	150	265	610	
H3..21	50	130	40	130	—	—	240	110	200	220	430	190	340	810	
H3..22	55	135	45	130	35	110	250	120	210	230	480	190	340	1080	
H3..23	60	155	50	130	40	130	270	140	250	260	540	190	340	1455	
H3..24	70	155	55	135	—	—	325	160	290	295	605	245	440	1950	
H3..25	75	155	60	155	50	130	335	170	300	305	680	245	440	2655	
H3..26	85	180	70	155	70	155	350	190	350	345	765	245	440	3525	

Size	Foundation														
	A	B	C	C_5	E	F_3	h	$H^{2)}$	O_2	P_1	R_1	S_2	S_3	S_4	T_1
H3..19	440	885	265	28.50	303	400	225	383	23	240	440	48.5	22	105	836
H3..20	495	987	288	43	314	440	250	394	23	262	487	45	24	105	935
H3..21	555	1098	320	27.50	385	500	280	475	27	295	545	65	28	120	1045
H3..22	620	1220	355	30	400	560	315	490	27	325	605	60	28	120	1160
H3..23	700	1377	405	35	450	630	355	540	33	370	685	70	35	150	1305
H3..24	785	1520	435	37.5	515	700	400	605	33	398	753	87.5	35	150	1443
H3..25	880	1690	475	37.5	535	800	450	625	33	436	836	80	35	150	1612
H3..26	990	1920	540	45	600	890	500	700	39	495	945	100	45	175	1830

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to $\phi 50$ k6; over $\phi 50$ m6.

1) Max. dimensions; details acc. to order related documents

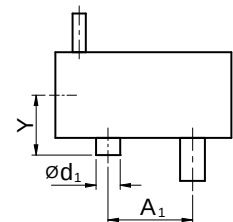
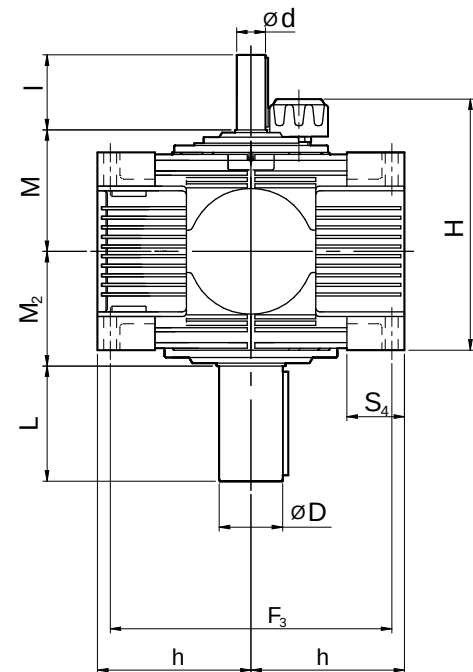
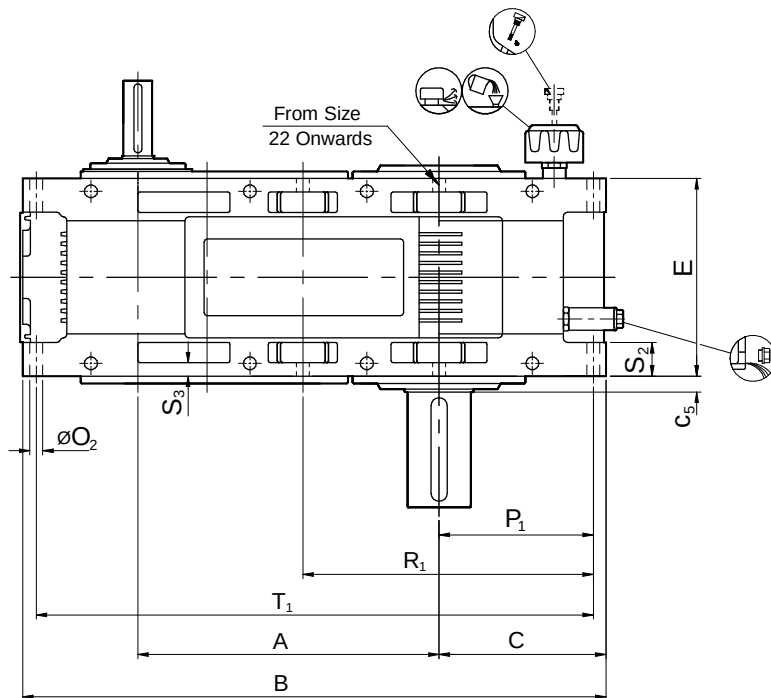
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

VERTICAL MOUNTING - HELICAL GEAR UNIT

TYPE H3V

TRIPLE STAGE - SIZE 19 TO 26



Size	Input Shaft							Output Shaft			Back Stop			
	i = 20-50		i = 56-80											
	i = 25-63		i = 71-100											
	i = 25-71		i = 80-100											
	d	l	d	l	d	l	M	D	L	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾	
H3..19	1.38	4.33	1.18	4.33	0.98	3.94	7.48	3.54	6.50	7.09	13.39	5.91	10.43	981
H3..20	1.77	5.12	1.38	4.33	0.98	3.94	7.68	3.94	7.87	7.87	15.16	5.91	10.43	1345
H3..21	1.97	5.12	1.57	5.12	0.00	0.00	9.45	4.33	7.87	8.66	16.93	7.48	13.39	1786
H3..22	2.17	5.31	1.77	5.12	1.38	4.33	9.84	4.72	8.27	9.06	18.90	7.48	13.39	2381
H3..23	2.36	6.10	1.97	5.12	1.57	5.12	10.63	5.51	9.84	10.24	21.26	7.48	13.39	3208
H3..24	2.76	6.10	2.17	5.31	0.00	0.00	12.80	6.30	11.42	11.61	23.82	9.65	17.32	4299
H3..25	2.95	6.10	2.36	6.10	1.97	5.12	13.19	6.69	11.81	12.01	26.77	9.65	17.32	5853
H3..26	3.35	7.09	2.76	6.10	2.76	6.10	13.78	7.48	13.78	13.58	30.12	9.65	17.32	7771

Size	Foundation														
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T ₁
H3..19	17.32	34.84	10.43	1.12	11.93	15.75	8.86	15.08	0.91	9.45	17.32	1.91	0.87	4.13	32.91
H3..20	19.49	38.86	11.34	1.69	12.36	17.32	9.84	15.51	0.91	10.31	19.17	1.77	0.94	4.13	36.81
H3..21	21.85	43.23	12.60	1.08	15.16	19.69	11.02	18.70	1.06	11.61	21.46	2.56	1.10	4.72	41.14
H3..22	24.41	48.03	13.98	1.18	15.75	22.05	12.40	19.29	1.06	12.80	23.82	2.36	1.10	4.72	45.67
H3..23	27.56	54.21	15.94	1.38	17.72	24.80	13.98	21.26	1.30	14.57	26.97	2.76	1.38	5.91	51.38
H3..24	30.91	59.84	17.13	1.48	20.28	27.56	15.75	23.82	1.30	15.67	29.65	3.44	1.38	5.91	56.81
H3..25	34.65	66.54	18.70	1.48	21.06	31.50	17.72	12.80	1.30	17.17	32.91	3.15	1.38	5.91	63.46
H3..26	38.98	75.59	21.26	1.77	23.62	35.04	19.69	27.56	1.54	19.49	37.20	3.94	1.77	6.89	72.05

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

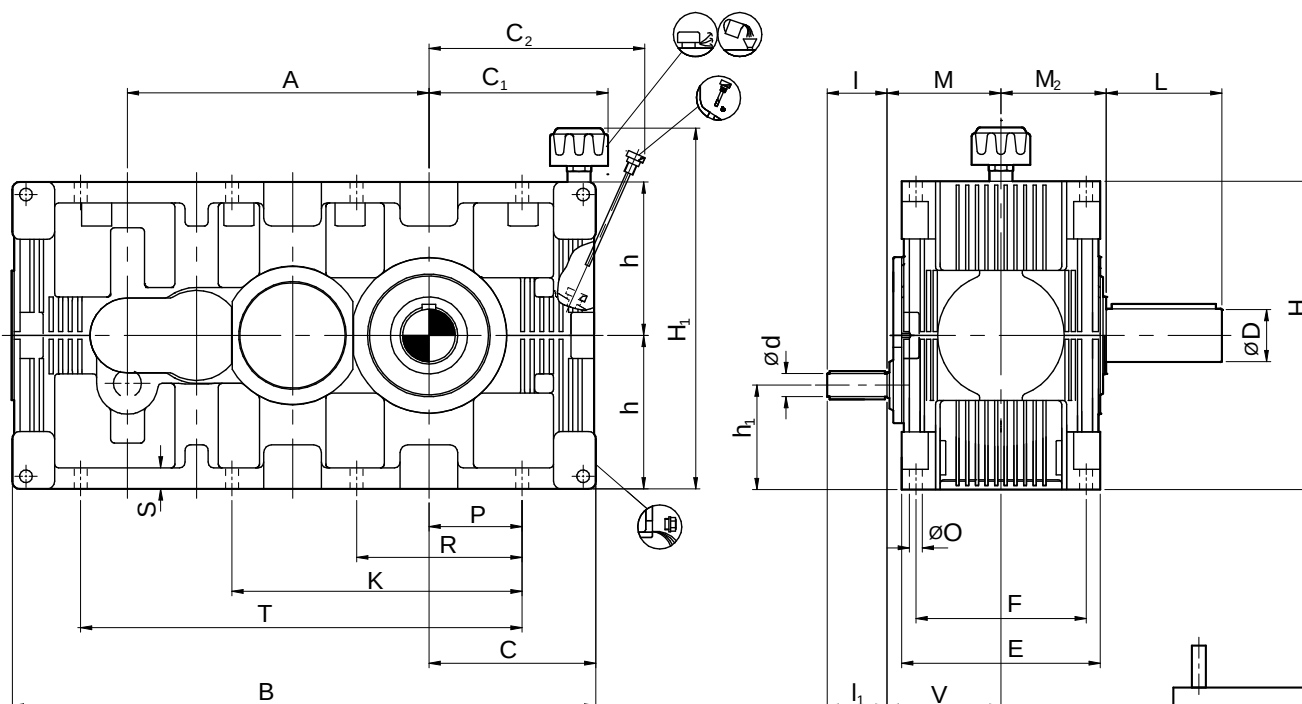
mm

DIMENSIONS IN mm

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE H4H

QUADRUPLE STAGE - SIZE 18 TO 26



Size	Input Shaft						Output Shaft			Back Stop				
	i = 90 - 225		i = 250 - 450											
	i = 125 - 355		i = 400 - 560											
	i = 125 - 400		i = 450 - 560											
	d	l	d	l	M	H ₁	D	L	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
H4..18	20	50	19	50	170	137	80	160	170	395	95	255	325	13
H4..19	20	50	19	50	180	154	90	165	180	440	95	255	445	18
H4..20	20	50	20	50	190	170	100	200	200	495	95	255	610	22
H4..21	30	80	25	60	220	190	110	200	220	555	135	310	810	28
H4..22	35	80	25	60	230	215	120	210	230	620	135	310	1080	39
H4..23	40	110	35	80	260	245	140	250	260	700	140	310	1455	56
H4..24	40	110	40	110	295	275	160	290	295	785	175	415	1950	80
H4..25	45	110	45	110	305	310	170	300	305	880	175	415	2655	115
H4..26	50	110	50	110	345	340	190	350	345	990	190	415	3525	165

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

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

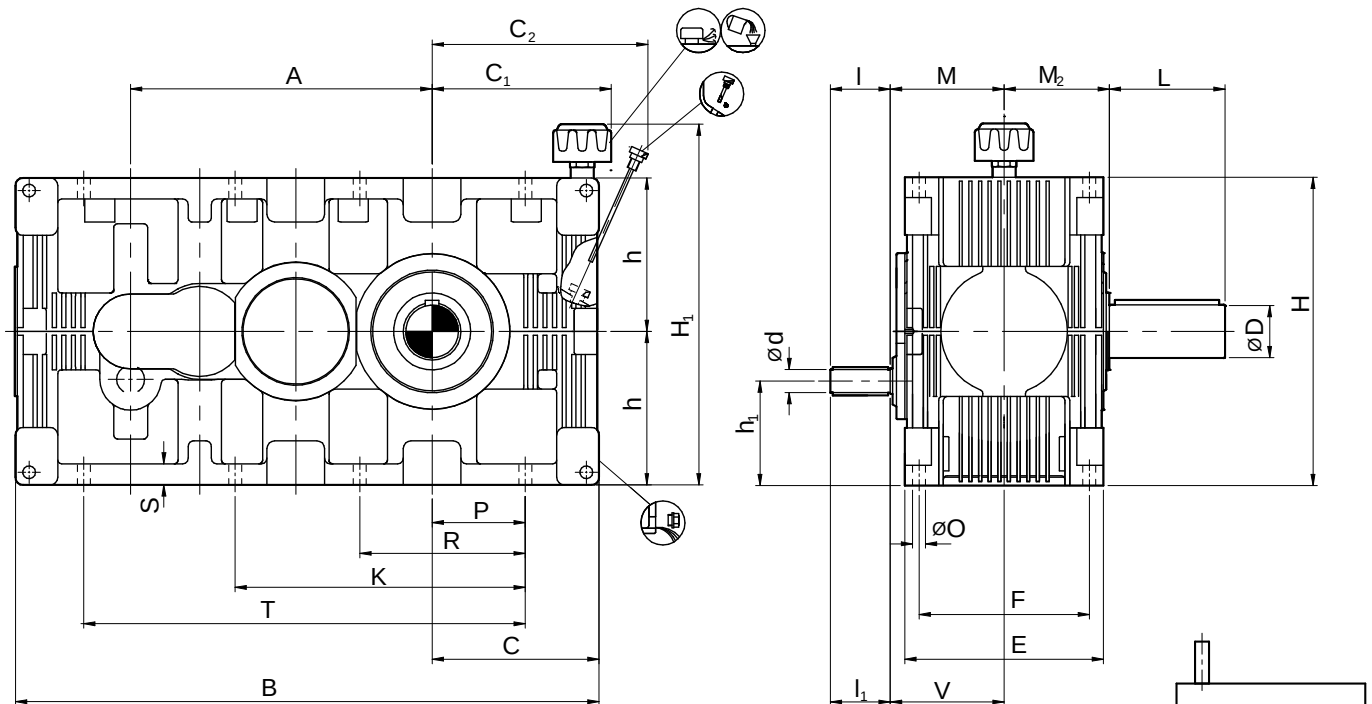
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE H4H

QUADRUPLE STAGE - SIZE 18 TO 26



Size	Input Shaft						Output Shaft			Back Stop				
	i = 90 - 225		i = 250 - 450											
	i = 125 - 355		i = 400 - 560											
	i = 125 - 400		i = 450 - 560											
	d	l	d	l		M								
H4..18	0.79	1.97	0.75	1.97	6.69	5.39	3.15	6.30	6.69	15.55	3.74	10.04	325	3.4
H4..19	0.79	1.97	0.75	1.97	7.09	6.06	3.54	6.50	7.09	17.32	3.74	10.04	445	4.8
H4..20	0.79	1.97	0.79	1.97	7.48	6.69	3.94	7.87	7.87	19.49	3.74	10.04	610	5.8
H4..21	1.18	3.15	0.98	2.36	8.66	7.48	4.33	7.87	8.66	21.85	5.31	12.20	810	7.4
H4..22	1.38	3.15	0.98	2.36	9.06	8.46	4.72	8.27	9.06	24.41	5.31	12.20	1080	10.3
H4..23	1.57	4.33	1.38	3.15	10.24	9.65	5.51	9.84	10.24	27.56	5.51	12.20	1455	14.8
H4..24	1.57	4.33	1.57	4.33	11.61	10.83	6.30	11.42	11.61	30.91	6.89	16.34	1950	21.1
H4..25	1.77	4.33	1.77	4.33	12.01	12.20	6.69	11.81	12.01	34.65	6.89	16.34	2655	30.4
H4..26	1.97	4.33	1.97	4.33	13.58	13.39	7.48	13.78	13.58	38.98	7.48	16.34	3525	43.6

Size	Foundation															
	A	B	C	C ₁ ²⁾	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	K	O	P	R	S	T
H4..18	15.55	30.98	9.29	10.35	11.06	11.18	9.06	7.87	15.91	18.90	-	0.71	5.31	9.45	1.26	22.24
H4..19	17.32	34.84	10.43	11.14	12.40	11.93	9.84	8.86	17.91	20.87	-	0.91	5.71	10.04	1.42	24.21
H4..20	19.49	38.86	11.34	11.97	13.58	12.36	10.63	9.84	19.53	22.83	-	0.91	6.50	11.42	1.42	27.76
H4..21	21.85	43.23	12.60	14.13	15.51	15.16	12.20	11.02	22.52	25.59	-	1.06	7.09	12.40	1.77	30.71
H4..22	24.41	48.03	13.98	15.35	16.89	15.75	13.39	12.40	25.00	28.35	-	1.06	7.87	13.98	1.77	34.65
H4..23	27.56	54.21	15.94	16.61	18.94	17.72	14.96	13.98	27.76	31.50	25.79	1.30	8.66	15.94	2.17	38.78
H4..24	30.91	59.84	17.13	17.80	21.30	20.28	16.14	15.75	31.30	35.04	29.13	1.30	9.65	17.72	2.17	43.70
H4..25	34.65	66.54	18.70	19.41	23.27	21.06	18.11	17.72	34.06	38.98	33.07	1.30	11.02	20.08	2.17	49.02
H4..26	38.98	75.59	21.26	21.77	25.94	23.62	20.08	19.69	37.56	42.91	37.01	1.54	12.40	22.64	2.56	55.12

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

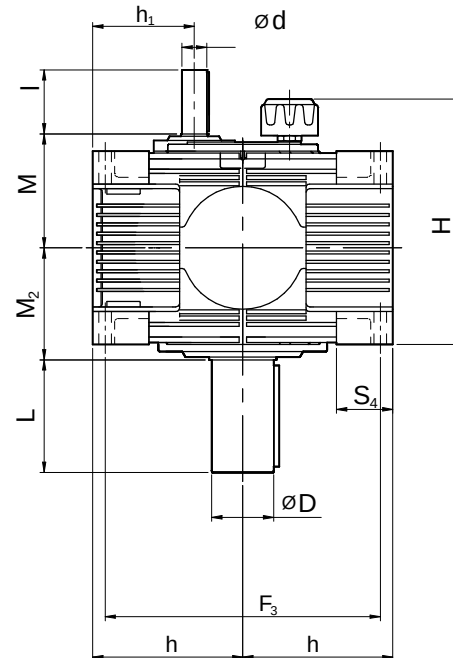
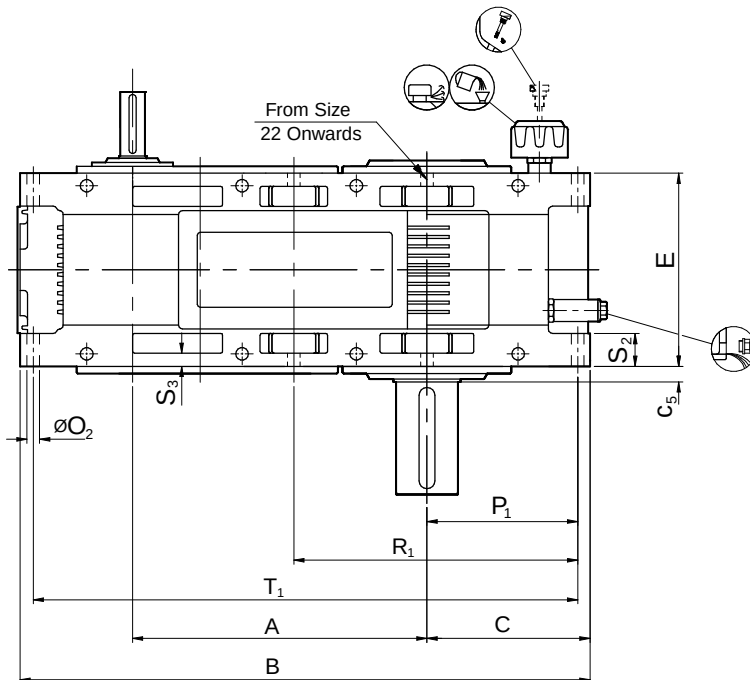
DIMENSIONS IN mm

VERTICAL MOUNTING - HELICAL GEAR UNIT

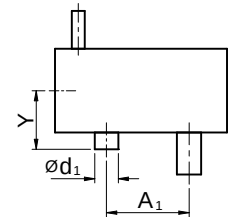
TYPE H4V

QUADRUPLE STAGE - SIZE 18 TO 26

E



Size	Input Shaft						Output Shaft			Back Stop			 KG
	i = 90 - 225		i = 250 - 450		M	H ₁							
	i = 125 - 355		i = 400 - 560										
	i = 125 - 400		i = 450 - 560										
d	l	d	l			D	L	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
H4..18	20	50	19	50	170	137	80	160	170	395	95	255	325
H4..19	20	50	19	50	180	154	90	165	180	440	95	255	445
H4..20	20	50	20	50	190	170	100	200	200	495	95	255	610
H4..21	30	80	25	60	220	190	110	200	220	555	135	310	810
H4..22	35	80	25	60	230	215	120	210	230	620	135	310	1080
H4..23	40	110	35	80	260	245	140	250	260	700	140	310	1455
H4..24	40	110	40	110	295	275	160	290	295	785	175	415	1950
H4..25	45	110	45	110	305	310	170	300	305	880	175	415	2655
H4..26	50	110	50	110	345	340	190	350	345	990	190	415	3525



Size	Foundation														
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T ₁
H4..18	395	787	236	28	284	350	200	364	18	215	395	45	20	90	744
H4..19	440	885	265	28.50	303	400	225	383	23	240	440	48.5	22	105	836
H4..20	495	987	288	43	314	440	250	394	23	262	487	45	24	105	935
H4..21	555	1098	320	27.50	385	500	280	475	27	295	545	65	28	120	1045
H4..22	620	1220	355	30	400	560	315	490	27	325	605	60	28	120	1160
H4..23	700	1377	405	35	450	630	355	540	33	370	685	70	35	150	1305
H4..24	785	1520	435	37.5	515	700	400	605	33	398	753	87.5	35	150	1443
H4..25	880	1690	475	37.5	535	800	450	625	33	436	836	80	35	150	1612
H4..26	990	1920	540	45	600	890	500	700	39	495	945	100	45	175	1830

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to $\varnothing 50$ k6; over $\varnothing 50$ m6.

1) Max. dimensions; details acc. to order related documents

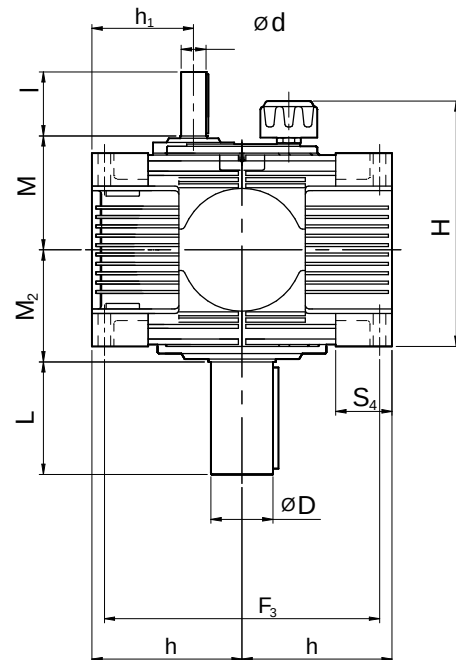
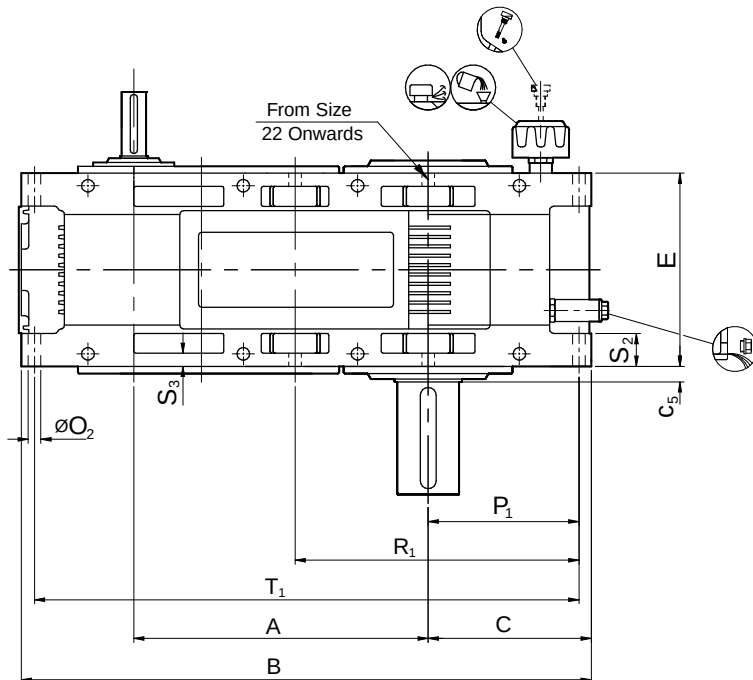
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

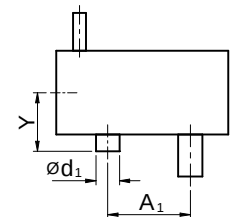
VERTICAL MOUNTING - HELICAL GEAR UNIT

TYPE H4V

QUADRUPLE STAGE - SIZE 18 TO 26



Size	Input Shaft						Output Shaft			Back Stop			 lbs
	i = 90 - 225		i = 250 - 450										
	i = 125 - 355		i = 400 - 560										
	i = 125 - 400		i = 450 - 560										
d	l	d	l	M	H ₁	D	L	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
H4..18	0.79	1.97	0.75	1.97	6.69	5.39	3.15	6.30	6.69	15.55	3.74	10.04	325
H4..19	0.79	1.97	0.75	1.97	7.09	6.06	3.54	6.50	7.09	17.32	3.74	10.04	445
H4..20	0.79	1.97	0.79	1.97	7.48	6.69	3.94	7.87	7.87	19.49	3.74	10.04	610
H4..21	1.18	3.15	0.98	2.36	8.66	7.48	4.33	7.87	8.66	21.85	5.31	12.20	810
H4..22	1.38	3.15	0.98	2.36	9.06	8.46	4.72	8.27	9.06	24.41	5.31	12.20	1080
H4..23	1.57	4.33	1.38	3.15	10.24	9.65	5.51	9.84	10.24	27.56	5.51	12.20	1455
H4..24	1.57	4.33	1.57	4.33	11.61	10.83	6.30	11.42	11.61	30.91	6.89	16.34	1950
H4..25	1.77	4.33	1.77	4.33	12.01	12.20	6.69	11.81	12.01	34.65	6.89	16.34	2655
H4..26	1.97	4.33	1.97	4.33	13.58	13.39	7.48	13.78	13.58	38.98	7.48	16.34	3525



Size	Foundation														
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T ₁
H4..18	15.55	30.98	9.29	1.10	11.18	13.78	7.87	14.33	0.71	8.46	15.55	1.77	0.79	3.54	29.29
H4..19	17.32	34.84	10.43	1.12	11.93	15.75	8.86	15.08	0.91	9.45	17.32	1.91	0.87	4.13	32.91
H4..20	19.49	38.86	11.34	1.69	12.36	17.32	9.84	15.51	0.91	10.31	19.17	1.77	0.94	4.13	36.81
H4..21	21.85	43.23	12.60	1.08	15.16	19.69	11.02	18.70	1.06	11.61	21.46	2.56	1.10	4.72	41.14
H4..22	24.41	48.03	13.98	1.18	15.75	22.05	12.40	19.29	1.06	12.80	23.82	2.36	1.10	4.72	45.67
H4..23	27.56	54.21	15.94	1.38	17.72	24.80	13.98	21.26	1.30	14.57	26.97	2.76	1.38	5.91	51.38
H4..24	30.91	59.84	17.13	1.48	20.28	27.56	15.75	23.82	1.30	15.67	29.65	3.44	1.38	5.91	56.81
H4..25	34.65	66.54	18.70	1.48	21.06	31.50	17.72	12.80	1.30	17.17	32.91	3.15	1.38	5.91	63.46
H4..26	38.98	75.59	21.26	1.77	23.62	35.04	19.69	27.56	1.54	19.49	37.20	3.94	1.77	6.89	72.05

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

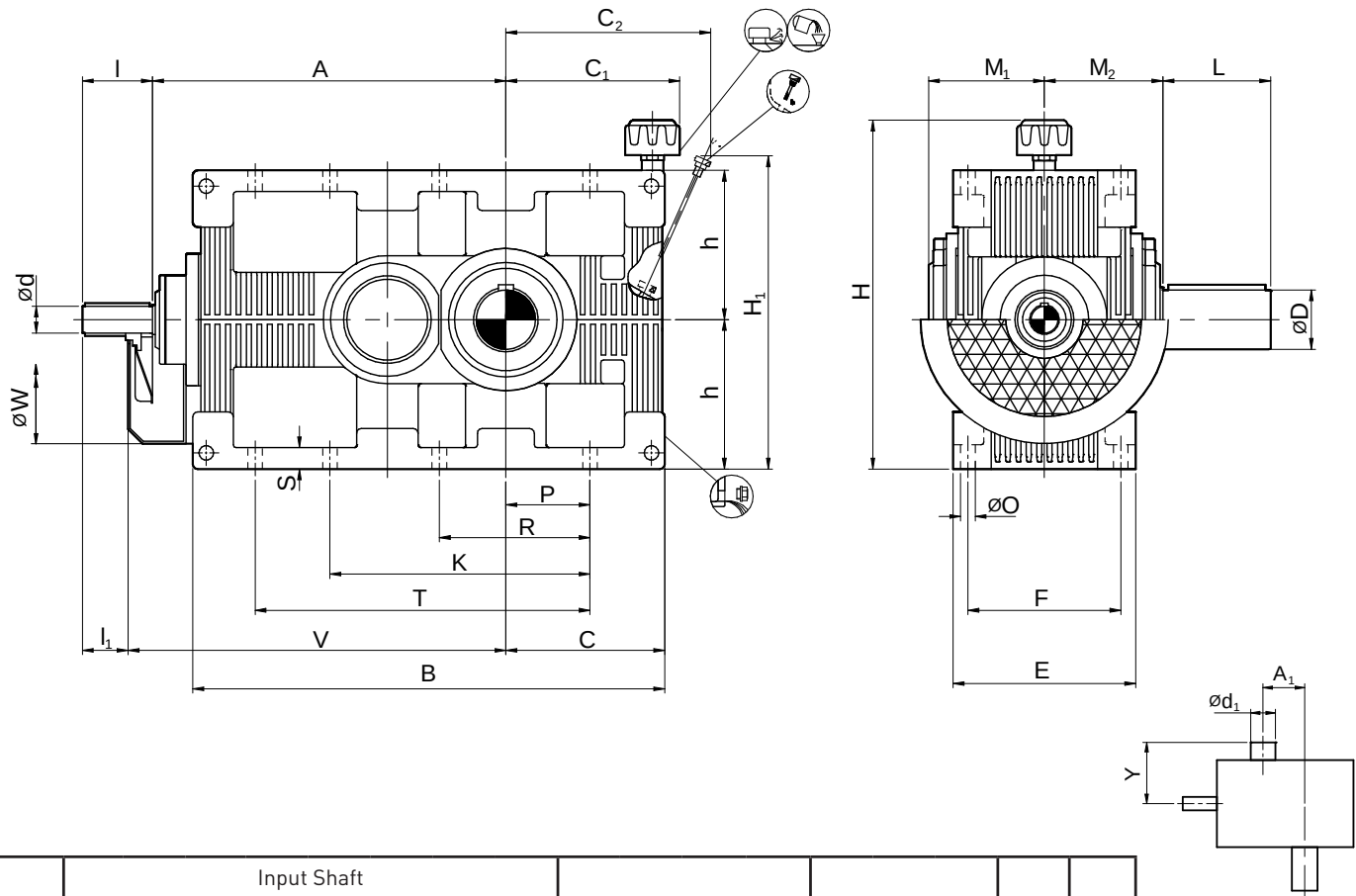
DIMENSIONS IN mm

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B2H

DOUBLE STAGE - SIZE 11 TO 18

E



Size	Input Shaft								Output Shaft				Back Stop				
	i = 5-12.5			i = 14-18													
	i = 5.6-14			i = 16-20													
	i = 6.3-16			i = 18-22.4													
	d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
B2..11	19	90	40	19	90	40	325	210	32	55	94	105	80	95	180	40	1.5
B2..13	24	100	50	24	100	50	390	270	45	95	106	115	100	105	190	75	2.5
B2..15	32	110	60	28	100	50	465	300	55	95	127	135	125	140	255	135	4
B2..17	42	130	80	38	110	60	570	360	70	135	141	150	160	175	255	250	7
B2..18	48	130	80	42	130	80	635	360	80	160	158	170	180	190	305	330	9

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

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

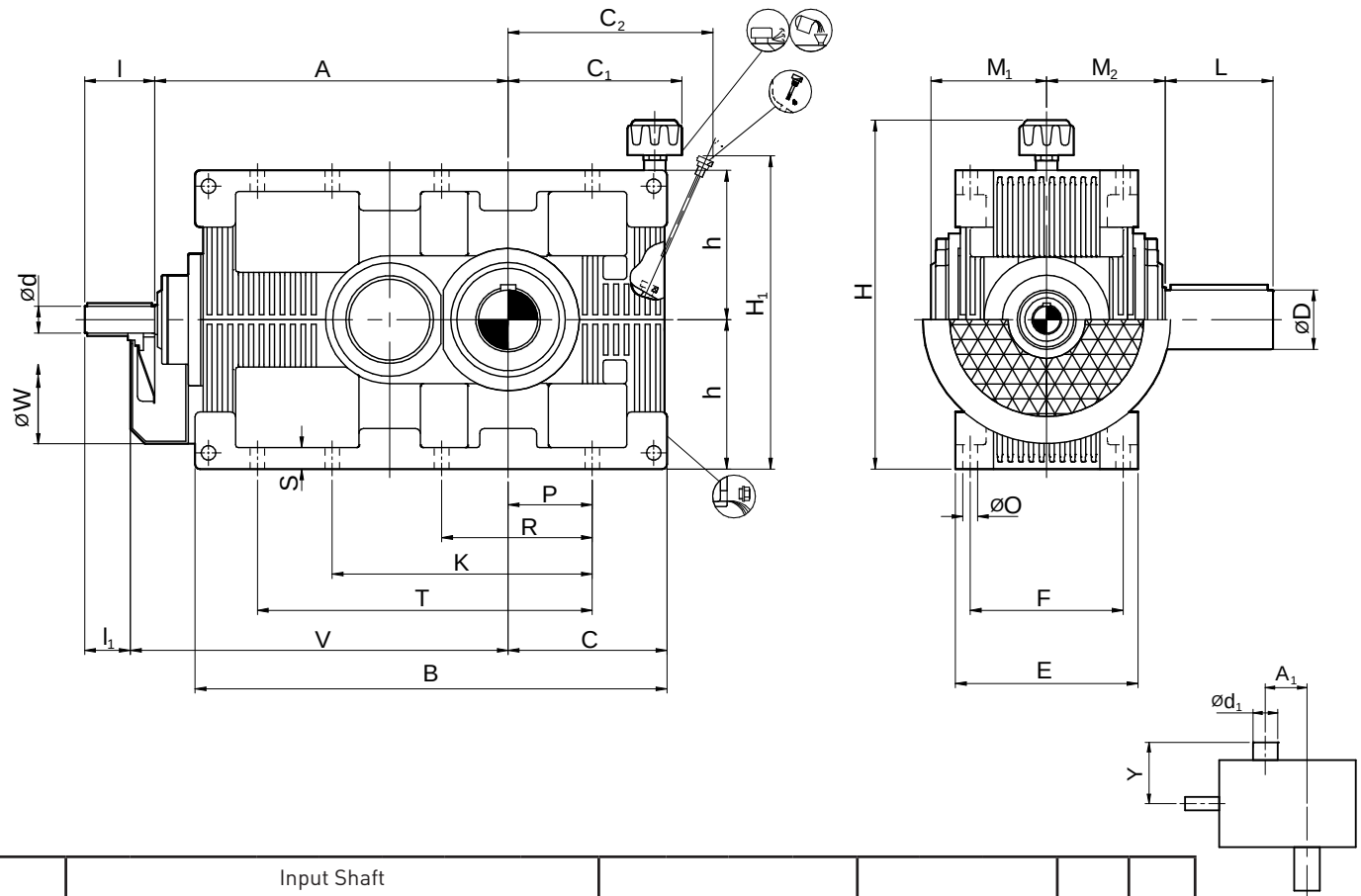
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B2H

DOUBLE STAGE - SIZE 11 TO 18



Size	Input Shaft								Output Shaft				Back Stop				
	i = 5-12.5			i = 14-18													
	i = 5.6-14			i = 16-20													
	i = 6.3-16			i = 18-22.4													
	d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
B2..11	0.75	3.54	1.57	0.75	3.54	1.57	12.80	8.27	1.26	2.17	3.70	4.13	3.15	3.74	7.09	88	0.4
B2..13	0.94	3.94	1.97	0.94	3.94	1.97	14.37	10.63	1.77	3.74	4.17	4.53	3.94	4.13	7.48	165	0.7
B2..15	1.26	4.33	2.36	1.10	3.94	1.97	18.11	11.81	2.17	3.74	5.00	5.31	4.92	5.51	10.04	298	1.1
B2..17	1.65	5.12	3.15	1.50	4.33	2.36	22.24	14.17	2.76	5.31	5.55	5.91	6.30	6.89	10.04	551	1.8
B2..18	1.89	5.12	3.15	1.65	5.12	3.15	25.00	14.17	3.15	6.30	6.22	6.69	7.09	7.48	12.01	728	2.4

Size	Foundation															
	A	B	C	C ₁ ²⁾	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	K	O	P	R	S	T
B2..11	10.83	14.02	5.51	6.93	6.73	7.09	5.91	3.94	9.76	10.24	0.55	1.97	3.74	0.94	8.46	215
B2..13	13.39	17.13	6.10	7.56	7.68	7.48	5.91	4.92	11.61	12.99	0.55	2.56	4.72	0.94	10.63	270
B2..15	16.34	20.47	7.17	8.58	9.09	8.98	6.69	6.30	13.86	15.75	0.55	3.74	6.69	0.94	13.98	355
B2..17	20.47	25.20	8.66	9.76	11.10	9.84	8.27	7.87	17.01	18.90	0.71	4.53	8.27	1.26	17.32	440
B2..18	23.03	28.19	9.69	10.75	12.24	11.18	9.06	8.86	18.70	20.87	0.71	5.31	9.45	1.26	19.88	505

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

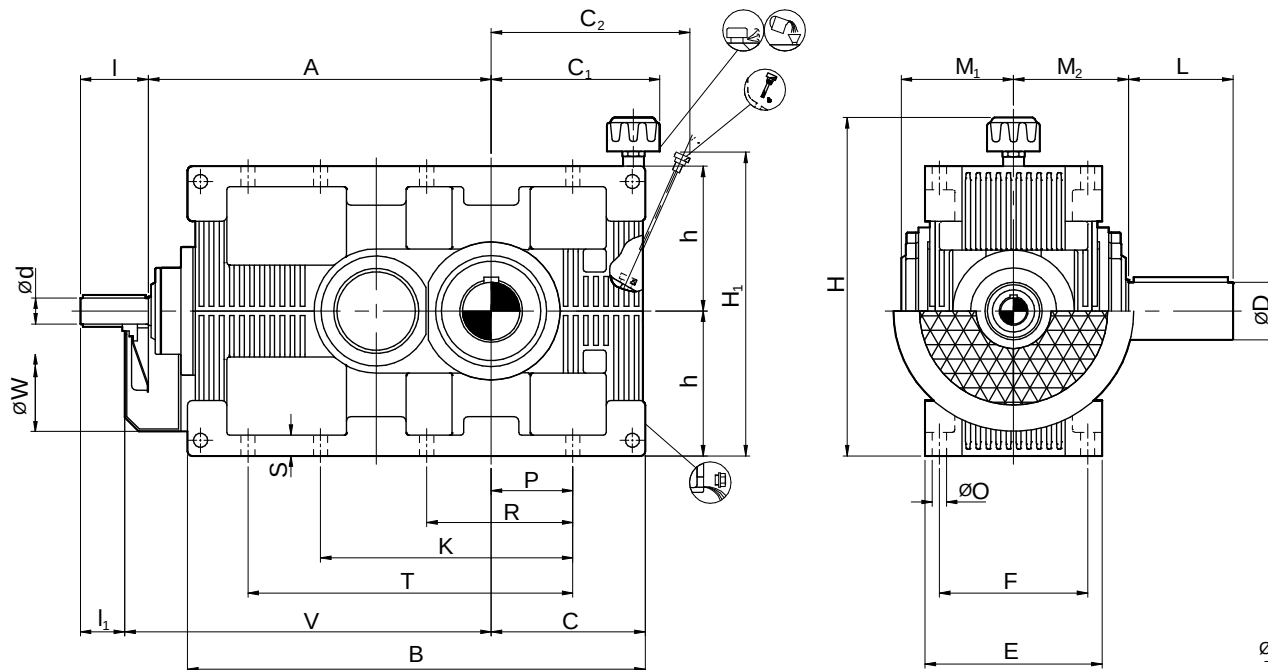
mm

DIMENSIONS IN mm

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B2H

DOUBLE STAGE - SIZE 20 TO 26



Size	Input Shaft								Output Shaft				Back Stop				
	i = 5-12.5			i = 14-18													
	i = 5.6-14			i = 16-20													
	i = 6.3-16			i = 18-22.4													
	d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
B2..20	58	135	85	52	135	85	770	460	100	200	176	200	225	210	305	595	18
B2..21	65	155	105	65	155	105	840	530	110	200	210	220	250	245	390	795	25
B2..22	70	155	105	70	155	105	925	550	120	210	220	230	280	290	390	1080	36
B2..23	85	180	130	80	180	130	1025	550	140	250	234	260	315	290	390	1455	51
B2..24	90	180	130	90	180	130	1135	650	160	290	283	295	355	310	470	1960	69
B2..25	100	220	170	100	220	170	1265	700	170	300	293	305	400	310	470	2650	95
B2..26	110	220	170	110	220	170	1415	700	190	350	306	345	450	400	470	3570	130

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

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

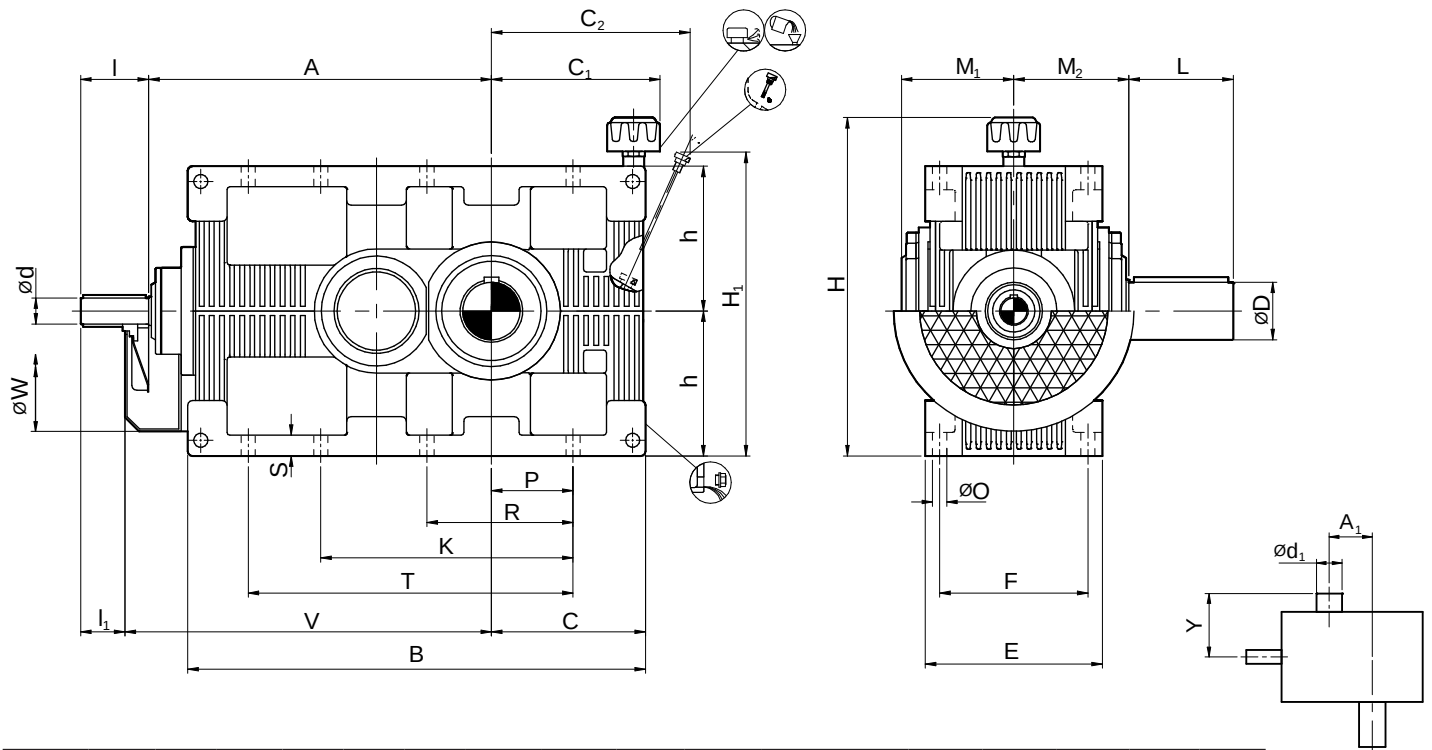
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B2H

DOUBLE STAGE - SIZE 20 TO 26



Size	Input Shaft								Output Shaft				Back Stop				
	i = 5-12.5			i = 14-18													
	i = 5.6-14			i = 16-20													
	i = 6.3-16			i = 18-22.4													
	d	l	l ₁	d	l	l ₁		V									
B2..20	2.28	5.31	3.35	2.05	5.12	3.35	30.71	18.11	3.94	7.87	6.93	7.87	8.86	8.27	12.01	1312	4.8
B2..21	2.56	6.10	4.13	2.56	6.10	4.13	33.86	20.87	4.33	7.87	8.27	8.66	9.84	9.65	15.35	1753	6.6
B2..22	2.76	6.10	4.13	2.76	6.10	4.13	37.40	21.65	4.72	8.27	8.66	9.06	11.02	11.42	15.35	2381	9.5
B2..23	3.35	7.09	5.12	3.15	7.09	5.12	41.34	21.65	5.51	9.84	9.21	10.24	12.40	11.42	15.35	3208	13.5
B2..24	3.54	7.09	5.12	3.54	7.09	5.12	46.06	25.59	6.30	11.42	11.14	11.61	13.98	12.20	18.50	4321	18.2
B2..25	3.94	8.66	6.69	3.94	8.66	6.69	51.18	27.56	6.69	11.81	11.54	12.01	15.75	12.20	18.50	5842	25.1
B2..26	4.33	8.66	6.69	4.33	8.66	6.69	57.09	27.56	7.48	13.78	12.05	13.58	17.72	15.75	18.50	7871	34.3

Size	Foundation															
	A	B	C	C ₁ ²⁾	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	K	O	P	R	S	T
B2..20	28.35	35.16	11.93	12.56	15.24	12.36	10.63	11.02	23.15	25.20		0.91	6.50	11.42	1.42	25.00
B2..21	31.10	39.17	13.19	14.72	17.13	15.16	12.20	12.40	26.14	28.35		1.06	7.09	12.40	1.77	27.76
B2..22	34.45	43.11	14.57	15.94	18.66	15.75	13.39	13.98	29.17	31.50		1.06	7.87	13.98	1.77	30.91
B2..23	38.39	49.21	16.73	17.40	21.14	17.72	14.96	15.75	32.72	35.04		1.30	8.66	15.94	2.17	34.45
B2..24	42.72	53.74	18.31	18.98	23.54	20.28	16.14	17.72	35.75	38.98		1.30	9.65	17.72	2.17	38.39
B2..25	47.83	59.25	20.08	20.79	26.38	21.06	18.11	19.69	39.88	42.91		1.30	11.02	20.08	2.17	43.50
B2..26	53.74	67.32	22.83	23.35	29.65	23.62	20.08	22.05	44.76	47.64	37.01	1.54	12.40	22.64	2.56	49.02

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

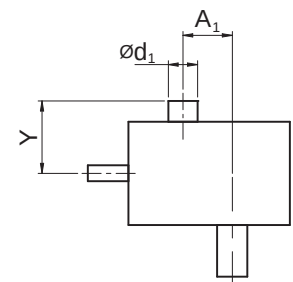
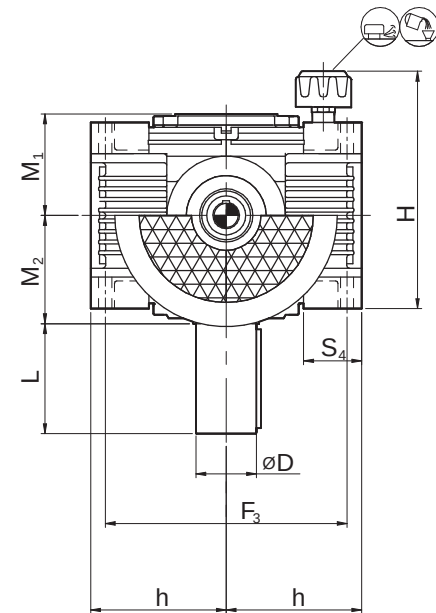
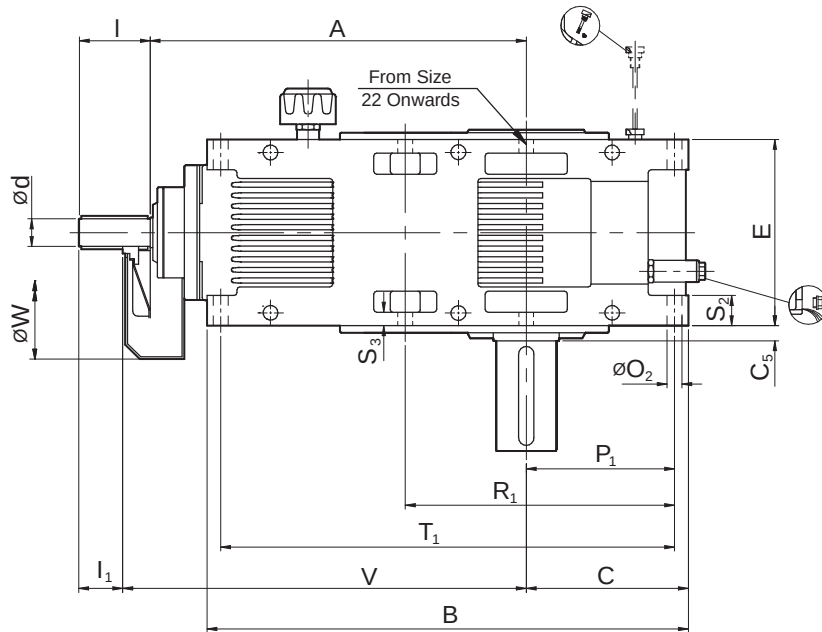
DIMENSIONS IN mm

VERTICAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B2V

DOUBLE STAGE - SIZE 11 TO 18

E



Size	Input Shaft								Output Shaft				Back Stop			
	i = 5-12.5			i = 14-18												
	i = 5.6-14			i = 16-20												
	i = 6.3-16			i = 18-22.4												
	d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾	
B2..11	19	90	40	19	90	40	325	210	32	55	94	105	80	95	180	40
B2..13	24	100	50	24	100	50	390	270	45	95	106	115	100	105	190	75
B2..15	32	110	60	28	100	50	365	300	55	95	127	135	125	140	255	135
B2..17	42	130	80	38	110	60	570	360	70	135	141	150	160	175	255	250
B2..18	48	130	80	42	130	80	635	360	80	160	158	170	180	190	305	330

Size	Foundation														
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T ₁
B2..11	275	356	140	22.50	180	160	100	225	14	124	—	—	14	66	324
B2..13	340	435	155	20	190	210	125	270	14	140	—	—	15	66	406
B2..15	415	520	182	21	228	270	160	308	14	165	290	45	15	70	486
B2..17	520	640	220	25	250	350	200	330	18	202	362	40	20	90	604
B2..18	585	716	246	28	284	400	225	364	18	224	404	45	20	90	672

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to $\varnothing 50$ k6; over $\varnothing 50$ m6.

1) Max. dimensions; details acc. to order related documents

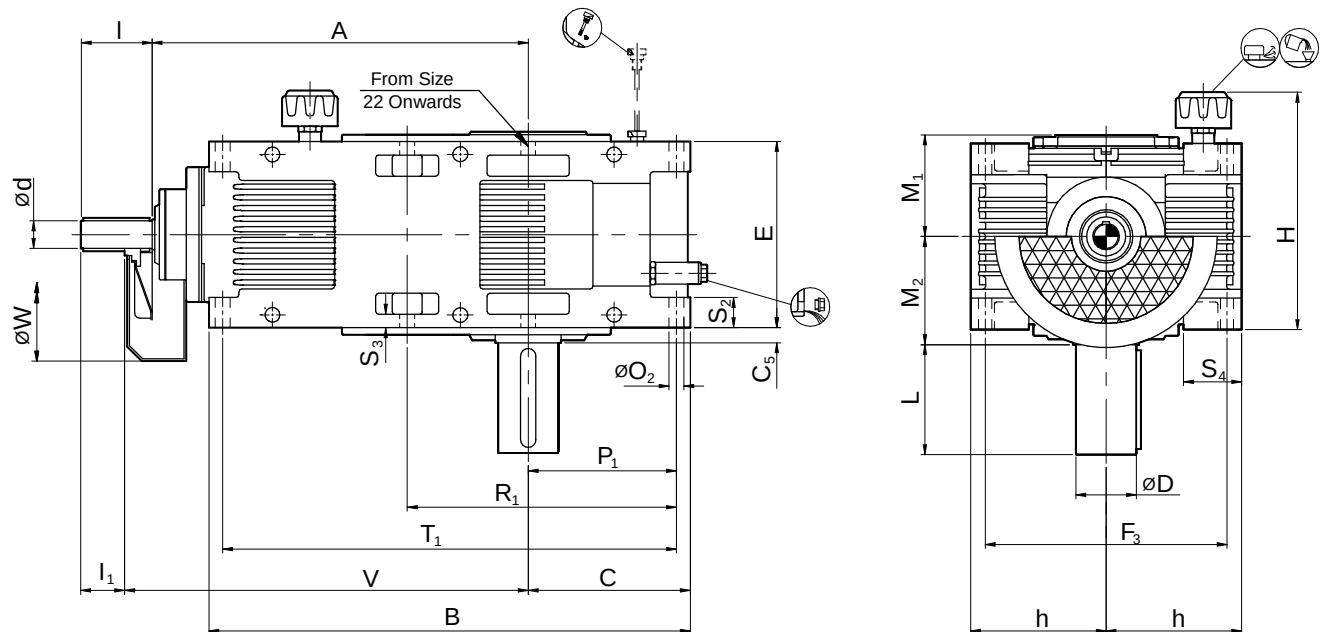
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

VERTICAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B2V

DOUBLE STAGE - SIZE 11 TO 18



Size	Input Shaft								Output Shaft				Back Stop			 lbs
	i = 5-12.5			i = 14-18												
	i = 5.6-14			i = 16-20												
	i = 6.3-16			i = 18-22.4												
	d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾	
B2..11	0.75	3.54	1.57	0.75	3.54	1.57	12.80	8.27	1.26	2.17	3.70	4.13	3.15	3.74	7.09	88
B2..13	0.94	3.94	1.97	0.94	3.94	1.97	14.37	10.63	1.77	3.74	4.17	4.53	3.94	4.13	7.48	165
B2..15	1.26	4.33	2.36	1.10	3.94	1.97	18.11	11.81	2.17	3.74	5.00	5.31	4.92	5.51	10.04	298
B2..17	1.65	5.12	3.15	1.50	4.33	2.36	22.24	14.17	2.76	5.31	5.55	5.91	6.30	6.89	10.04	551
B2..18	1.89	5.12	3.15	1.65	5.12	3.15	25.00	14.17	3.15	6.30	6.22	6.69	7.09	7.48	12.01	728

Size	Foundation														
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T ₁
B2..11	10.83	14.02	5.51	0.89	7.09	6.30	3.94	8.86	0.55	4.88	0.00		0.55	2.60	12.76
B2..13	13.39	17.13	6.10	0.79	7.48	8.27	4.92	10.63	0.55	5.51	0.00		0.59	2.60	15.98
B2..15	16.34	20.47	7.17	0.83	8.98	10.63	6.30	12.13	0.55	6.50	11.42	1.77	0.59	2.76	19.13
B2..17	20.47	25.20	8.66	0.98	9.84	13.78	7.87	12.99	0.71	7.95	14.25	1.57	0.79	3.54	23.78
B2..18	23.03	28.19	9.69	1.10	11.18	15.75	8.86	14.33	0.71	8.82	15.91	1.77	0.79	3.54	26.46

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

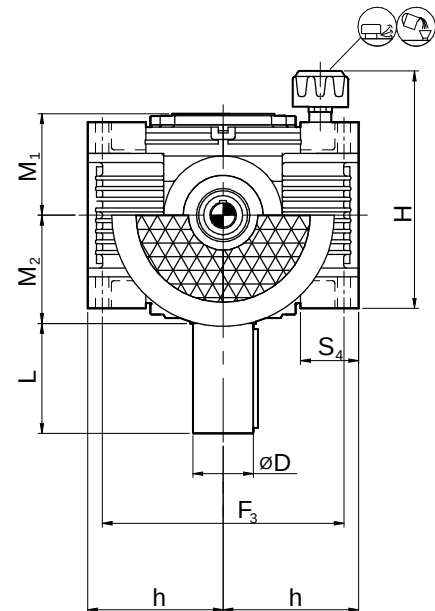
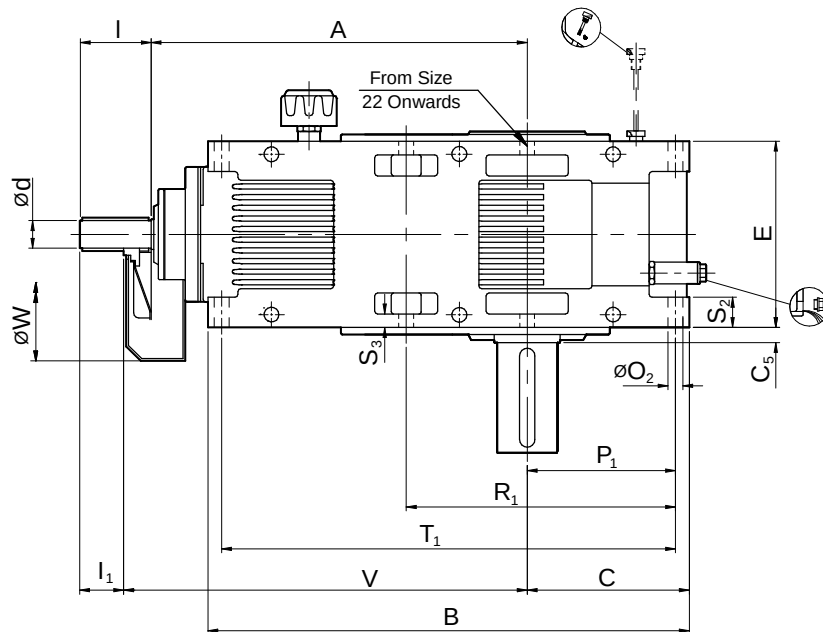
mm

DIMENSIONS IN mm

VERTICAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B2V

DOUBLE STAGE - SIZE 20 TO 26



Size	Input Shaft								Output Shaft				Back Stop			 KG	 ltr
	i = 5-12.5			i = 14-18													
	i = 5.6-14			i = 16-20													
	i = 6.3-16			i = 18-22.4													
	d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
B2..20	58	135	85	52	135	85	770	460	100	200	176	200	225	210	305	595	18
B2..21	65	155	105	65	155	105	840	530	110	200	210	220	250	245	390	795	25
B2..22	70	155	105	70	155	105	925	550	120	210	220	230	280	290	390	1080	36
B2..23	85	180	130	80	180	130	1025	550	140	250	234	260	315	290	390	1455	51
B2..24	90	180	130	90	180	130	1135	650	160	290	283	295	355	310	470	1960	69
B2..25	100	220	170	100	220	170	1265	700	170	300	293	305	400	310	470	2650	95
B2..26	110	220	170	110	220	170	1415	700	190	350	306	345	450	400	470	3570	130

Size	Foundation														
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T ₁
B2..20	720	893	303	43	314	500	280	394	23	276	501	45	24	105	839
B2..21	790	995	335	27.5	385	570	315	475	27	305	555	65	28	120	935
B2..22	875	1095	370	30	400	640	355	490	27	339	619	60	28	120	1033
B2..23	975	1250	425	35	450	720	400	540	33	386	701	70	35	150	1173
B2..24	1085	1365	465	37.5	515	800	450	605	33	426	781	87.5	35	150	1287
B2..25	1215	1505	510	37.5	535	900	500	625	33	474	874	80	35	150	1432
B2..26	1365	1710	580	45	600	1010	560	700	39	532	982	100	45	175	1614

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

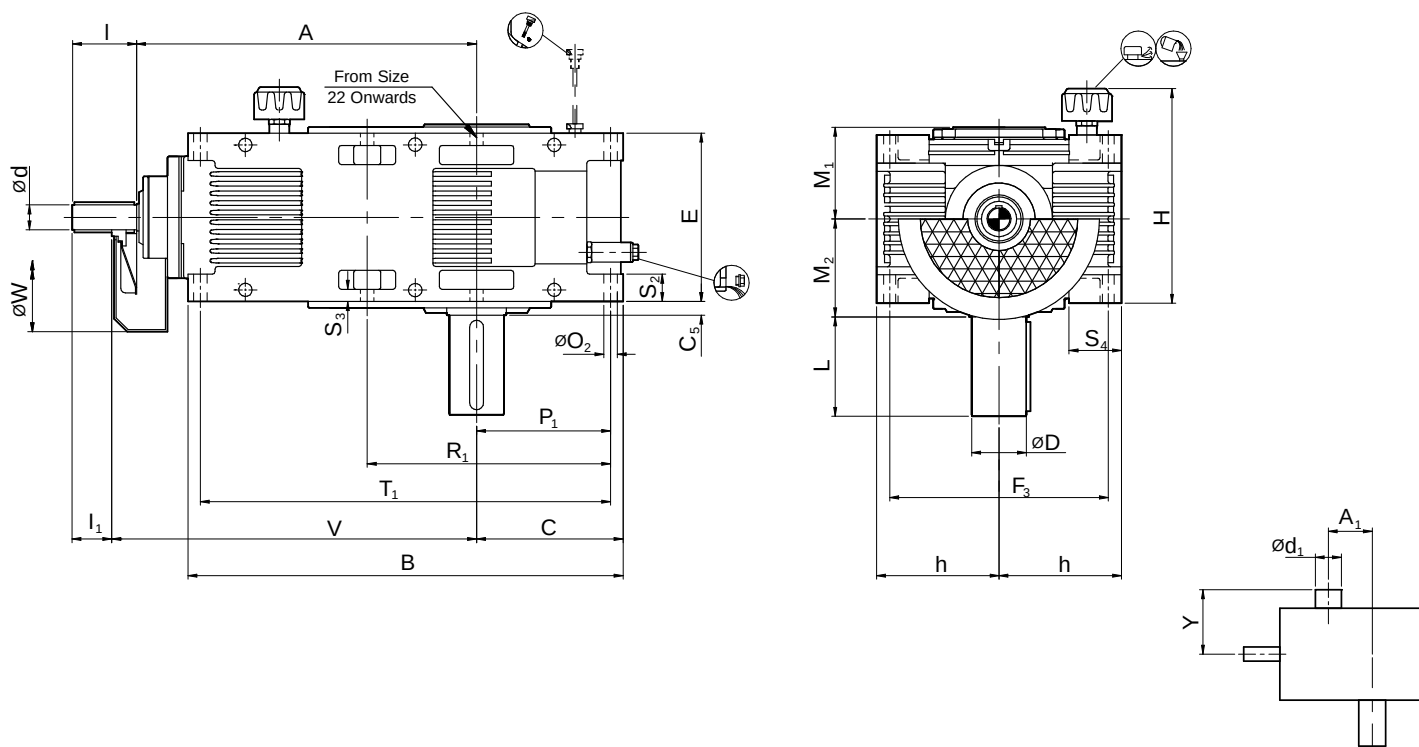
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

VERTICAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B2V

DOUBLE STAGE - SIZE 20 TO 26



Size	Input Shaft								Output Shaft				Back Stop				
	i = 5-12.5			i = 14-18													
	i = 5.6-14			i = 16-20													
	i = 6.3-16			i = 18-22.4													
	d	l	l ₁	d	l	l ₁		V									
B2..20	2.28	5.31	3.35	2.05	5.31	3.35	30.71	18.11	3.94	7.87	6.93	7.87	8.86	8.27	12.01	23.43	-
B2..21	2.56	6.10	4.13	2.56	6.10	4.13	33.07	20.87	4.33	7.87	8.27	8.66	9.84	9.65	15.35	31.30	-
B2..22	2.76	6.10	4.13	2.76	6.10	4.13	37.40	21.65	4.72	8.27	8.66	9.06	11.02	11.42	15.35	42.52	-
B2..23	3.35	7.09	5.12	3.15	7.09	5.12	41.34	21.65	5.51	9.84	9.21	10.24	12.40	11.42	15.35	57.28	-
B2..24	3.54	7.09	5.12	3.54	7.09	5.12	46.06	25.59	6.30	11.42	11.14	11.61	13.98	12.20	18.50	77.17	-
B2..25	3.94	8.66	6.69	3.94	8.66	6.69	51.18	27.56	6.69	11.81	11.54	12.01	15.75	12.20	18.50	104.33	-
B2..26	4.33	8.66	6.69	4.33	8.66	6.69	57.09	27.56	7.48	13.78	12.05	13.58	17.72	15.75	18.50	140.55	-

Size	Foundation															
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T ₁	
B2..20	28.35	35.16	11.93	1.69	12.36	19.69	11.02	15.51	0.91	10.87	19.72	1.77	0.94	4.13	33.03	
B2..21	31.10	39.17	13.19	1.08	15.16	22.44	12.40	18.70	1.06	12.01	21.85	2.56	1.10	4.72	36.81	
B2..22	34.45	43.11	14.57	1.18	15.75	25.20	13.98	19.29	1.06	13.35	24.37	2.36	1.10	4.72	40.67	
B2..23	38.39	49.21	16.73	1.38	17.72	28.35	15.75	21.26	1.30	15.20	27.60	2.76	1.38	5.91	46.18	
B2..24	42.72	53.74	18.31	1.48	20.28	31.50	17.72	23.82	1.30	16.77	30.75	3.44	1.38	5.91	50.67	
B2..25	47.83	59.25	20.08	1.48	21.06	35.43	19.69	24.61	1.30	18.66	34.41	3.15	1.38	5.91	56.38	
B2..26	53.74	67.32	22.83	1.77	23.62	39.76	22.05	27.56	1.54	20.94	38.66	3.94	1.77	6.89	63.54	

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

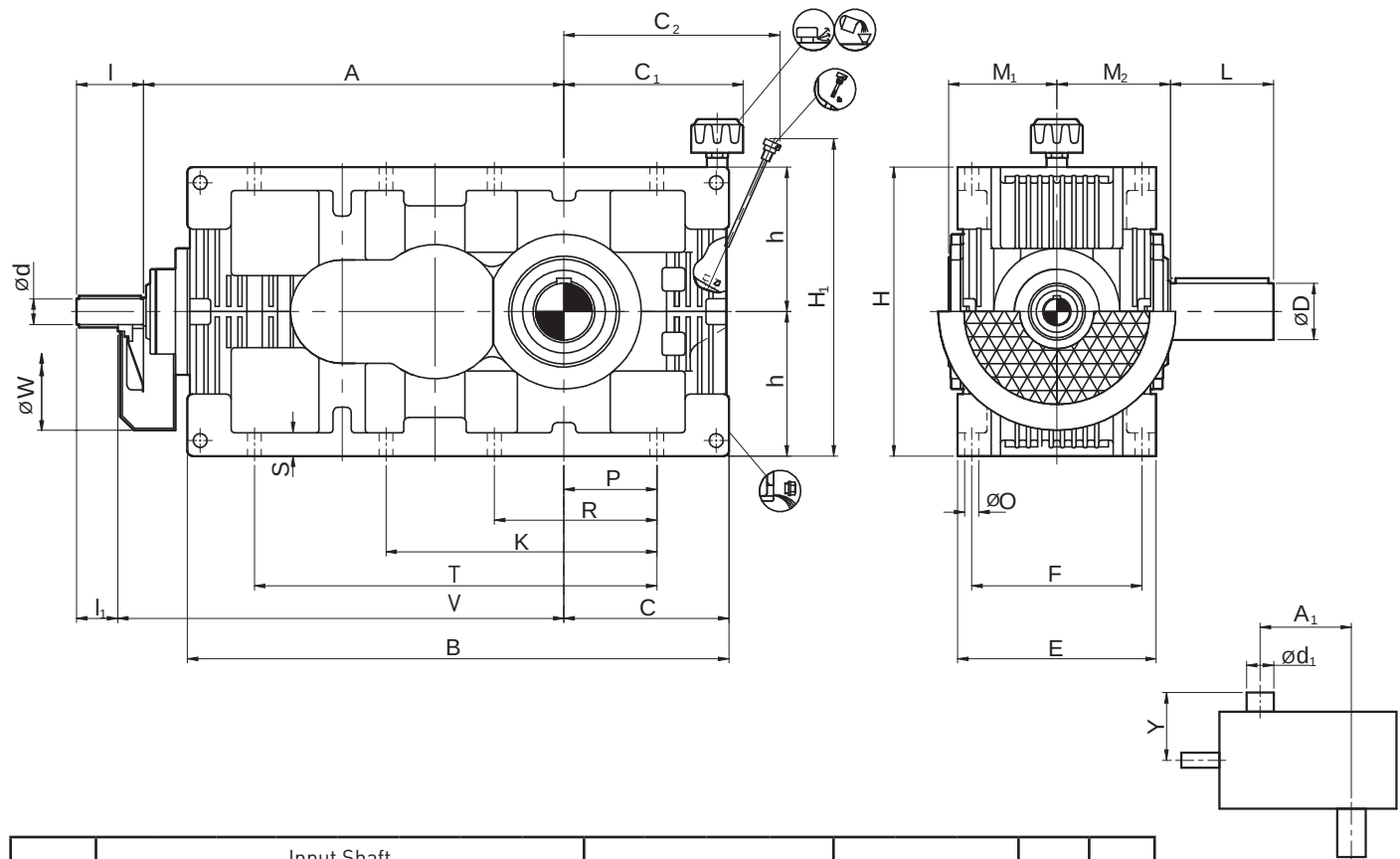
mm

DIMENSIONS IN mm

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B3H

TRIPLE STAGE - SIZE 14 TO 18



Size	Input Shaft								Output Shaft				Back Stop				
	i = 20-50			i = 56-71													
	i = 22.4-63			i = 71-90													
	i = 25-71			i = 80-100													
	d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
B3..14	19	90	40	19	90	40	435	240	48	95	106	125	190	90	180	105	3.5
B3..15	24	100	50	24	100	50	470	270	55	95	127	135	215	95	215	145	4.5
B3..16	24	100	50	24	100	50	530	300	60	130	133	145	240	95	215	195	6.5
B3..17	28	100	50	24	100	50	580	340	70	135	141	150	270	95	215	265	9
B3..18	32	110	60	28	100	50	645	360	80	160	158	170	305	140	265	355	13

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

Modification of dimensions reserved.

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

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

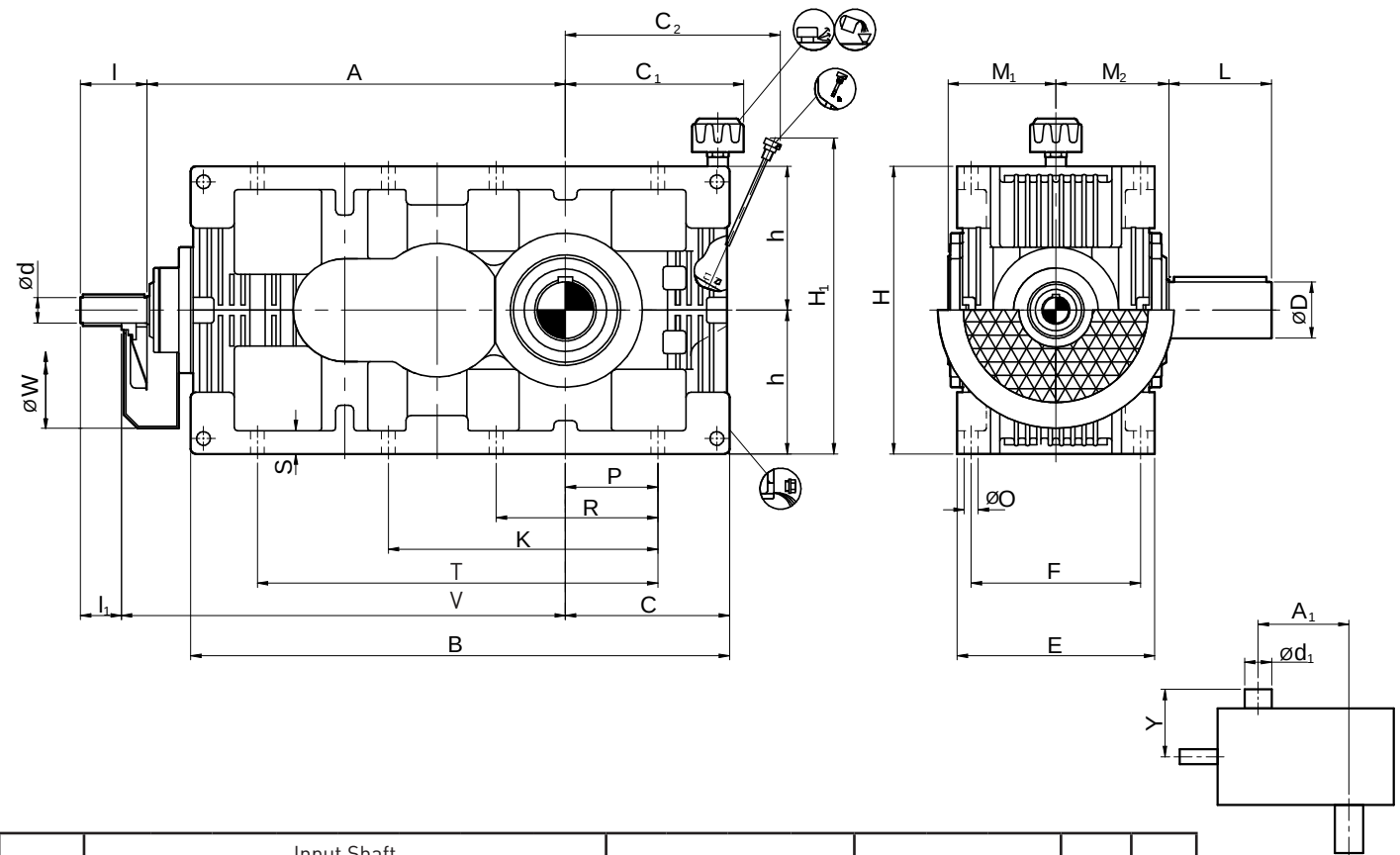
Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

DIMENSIONS IN inch
HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B3H
TRIPLE STAGE - SIZE 14 TO 18



Size	Input Shaft								Output Shaft				Back Stop				
	i = 20-50			i = 56-71													
	i = 22.4-63			i = 71-90													
	i = 25-71			i = 80-100													
	d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
B3..14	0.75	3.54	1.57	0.75	3.54	1.57	17.13	9.45	1.89	3.74	4.17	4.92	7.48	3.54	7.09	231	0.9
B3..15	0.94	3.94	1.97	0.94	3.94	1.97	18.50	10.63	2.17	3.74	5.00	5.31	8.46	3.74	8.46	320	1.2
B3..16	0.94	3.94	1.97	0.94	3.94	1.97	20.87	11.81	2.36	5.12	5.24	5.71	9.45	3.74	8.46	430	1.7
B3..17	1.10	3.94	1.97	0.94	3.94	1.97	22.83	13.39	2.76	5.31	5.55	5.91	10.63	3.74	8.46	584	2.4
B3..18	1.26	4.33	2.36	1.10	3.94	1.97	25.39	14.17	3.15	6.30	6.22	6.69	12.01	5.51	10.43	783	3.4

Size	Foundation															
	A	B	C	C ₁ ²⁾	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	K	O	P	R	S	T
B3..14	15.16	19.21	6.38	7.80	7.64	7.48	5.91	4.92	10.94	12.99	-	0.55	3.15	5.51	0.94	13.58
B3..15	16.54	21.57	6.97	8.39	8.46	8.98	6.69	5.51	12.05	14.17	-	0.55	3.74	6.69	0.94	15.55
B3..16	18.90	24.21	7.68	8.98	9.09	9.17	7.48	6.30	12.87	15.75	-	0.55	4.33	7.68	0.94	17.72
B3..17	20.87	26.93	8.27	9.37	10.12	9.84	8.27	7.09	14.88	17.32	-	0.71	4.53	8.27	1.26	19.49
B3..18	23.43	30.08	9.29	10.35	11.06	11.18	9.06	7.87	15.91	18.90	-	0.71	5.31	9.45	1.26	22.24

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

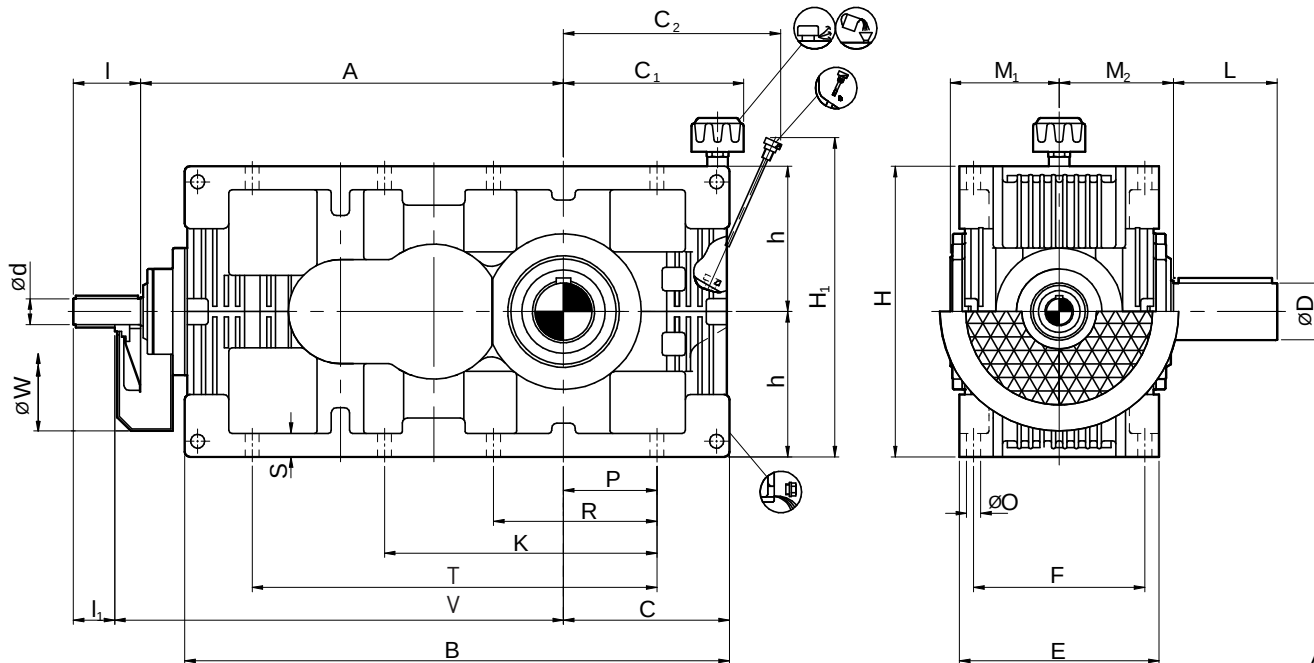
DIMENSIONS IN mm

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B3H

TRIPLE STAGE - SIZE 19 TO 26

E



Size	Input Shaft								Output Shaft				Back Stop				
	i = 20-50			i = 56-71													
	i = 22.4-63			i = 71-90													
	i = 25-71			i = 80-100													
	d	l	l ₁	d	l	l ₁	V	W									
B3..19	38	110	60	32	110	60	710	360	90	165	171	180	340	150	265	480	18
B3..20	42	130	80	38	110	60	795	400	100	200	176	200	385	150	265	645	26
B3..21	48	130	80	42	130	80	885	460	110	200	210	220	430	190	340	870	33
B3..22	52	130	80	48	130	80	970	530	120	210	220	230	480	190	340	1170	46
B3..23	58	135	85	52	130	80	1085	550	140	250	234	260	540	190	340	1590	65
B3..24	65	155	105	65	155	105	1195	600	160	290	283	295	605	245	440	2145	90
B3..25	70	155	105	70	155	105	1325	650	170	300	293	305	680	245	440	2895	125
B3..26	85	180	130	80	180	130	1475	700	190	350	306	345	765	245	440	3885	180

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

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

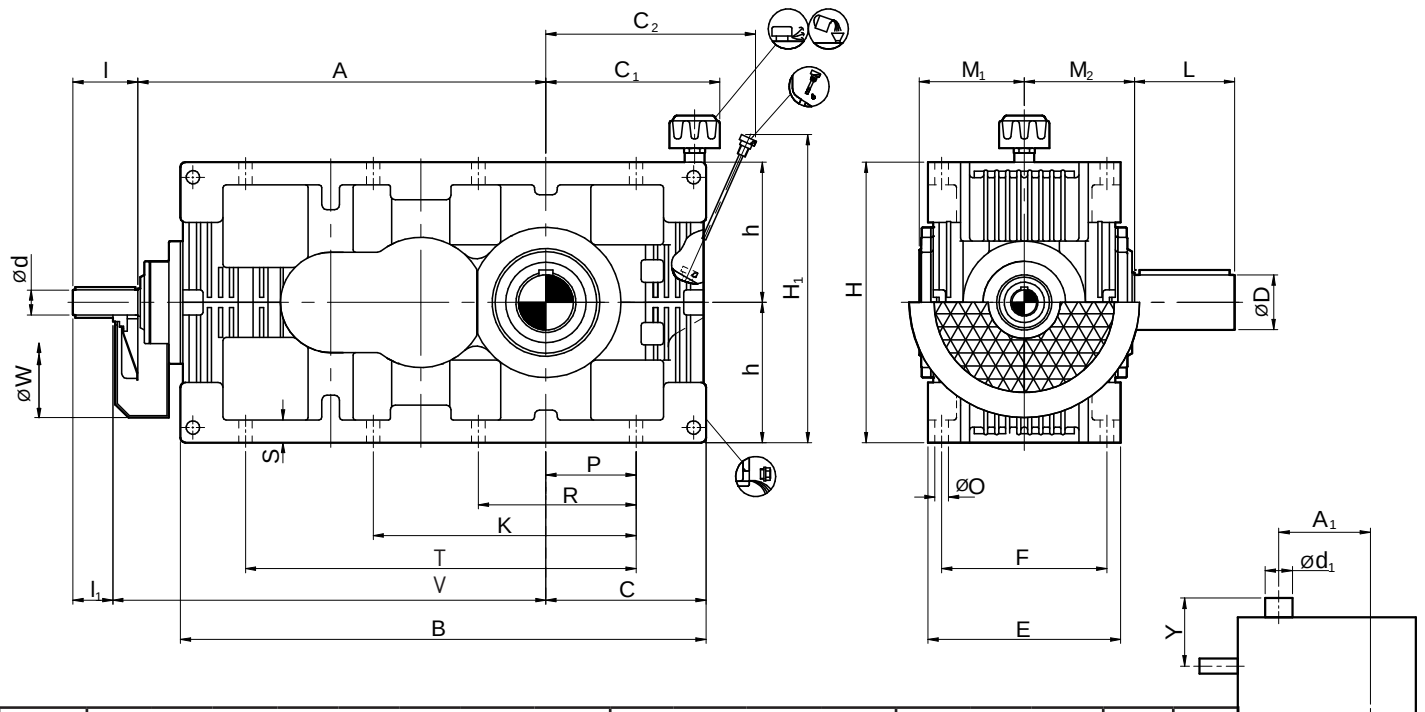
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B3H

TRIPLE STAGE - SIZE 19 TO 26



Size	Input Shaft								Output Shaft				Back Stop				
	i = 20-50			i = 56-71													
	i = 22.4-63			i = 71-90													
	i = 25-71			i = 80-100													
	d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
B3..19	1.50	4.33	2.36	1.26	4.33	2.36	27.76	14.17	3.54	6.50	6.73	7.09	13.39	5.91	10.43	1058	4.8
B3..20	1.65	5.12	3.15	1.50	4.33	2.36	31.10	15.75	3.94	7.87	6.93	7.87	15.16	5.91	10.43	1422	6.9
B3..21	1.89	5.12	3.15	1.65	5.12	3.15	34.84	18.11	4.33	7.87	8.27	8.66	16.93	7.48	13.39	1918	8.7
B3..22	2.05	5.12	3.15	1.89	5.12	3.15	38.19	20.87	4.72	8.27	8.66	9.06	18.90	7.48	13.39	2579	12.2
B3..23	2.28	5.31	3.35	2.05	5.12	3.15	43.11	21.65	5.51	9.84	9.21	10.24	21.26	7.48	13.39	3505	17.2
B3..24	2.56	6.10	4.13	2.56	6.10	4.13	47.83	23.62	6.30	11.42	11.14	11.61	23.82	9.65	17.32	4729	23.8
B3..25	2.76	6.10	4.13	2.76	6.10	4.13	53.15	25.59	6.69	11.81	11.54	12.01	26.77	9.65	17.32	6382	33.0
B3..26	3.35	7.09	5.12	3.15	7.09	5.12	59.06	27.56	7.48	13.78	12.05	13.58	30.12	9.65	17.32	8565	47.6

Size	Foundation															
	A	B	C	C ₁ ²⁾	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	K	O	P	R	S	T
B3..19	25.98	33.46	10.43	11.14	12.40	11.93	9.84	8.86	17.91	20.87	-	0.91	5.71	10.04	1.42	24.21
B3..20	29.33	37.20	11.34	11.97	13.58	12.36	10.63	9.84	19.53	22.83	-	0.91	6.50	11.42	1.42	27.76
B3..21	32.87	41.34	12.60	14.13	15.51	15.16	12.20	11.02	22.52	25.59	-	1.06	7.09	12.40	1.77	30.71
B3..22	36.22	46.06	13.98	15.35	16.89	15.75	13.39	12.40	25.00	28.35	-	1.06	7.87	13.98	1.77	34.65
B3..23	40.75	52.56	15.94	16.61	18.94	17.72	14.96	13.98	27.76	31.50	25.79	1.30	8.66	15.94	2.17	38.78
B3..24	45.08	57.68	17.13	17.80	21.30	20.28	16.14	15.75	31.30	35.04	29.13	1.30	9.65	17.72	2.17	43.70
B3..25	50.20	63.19	18.70	19.41	23.27	21.06	18.11	17.72	34.06	38.98	33.07	1.30	11.02	20.08	2.17	49.02
B3..26	56.10	71.65	21.26	21.77	25.94	23.62	20.08	19.69	37.56	42.91	37.01	1.54	12.40	22.64	2.56	55.12

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

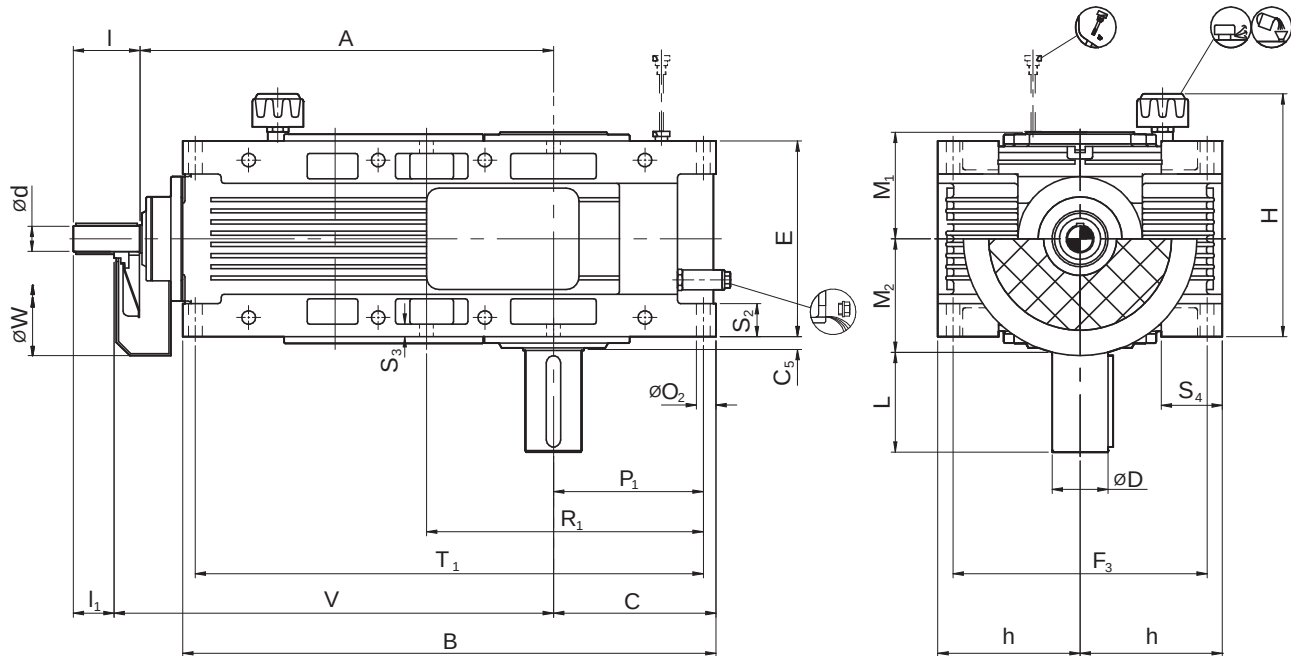
mm

DIMENSIONS IN mm

VERTICAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B3V

TRIPLE STAGE - SIZE 14 TO 18



Size	Input Shaft								Output Shaft				Back Stop			 KG
	i = 20-50			i = 56-71												
	i = 22.4-63			i = 71-90												
	i = 25-71			i = 80-100												
	d	l	l ₁	d	l	l ₁	V	W	D	L	M _i	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾	
B3..14	19	90	40	19	90	40	435	240	48	95	106	125	190	90	180	105
B3..15	24	100	50	24	100	50	470	270	55	95	127	135	215	95	215	145
B3..16	24	100	50	24	100	50	530	300	60	130	133	145	240	95	215	195
B3..17	28	100	50	24	100	50	580	340	70	135	141	150	270	95	215	265
B3..18	32	110	60	28	100	50	645	360	80	160	158	170	305	140	265	355

Size	Foundation														
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T ₁
B3..14	385	488	162	30	190	200	125	270	14	146	292	36	—	70	456
B3..15	420	548	177	21	228	230	140	308	14	160	285	45	15	70	515
B3..16	480	615	195	28.50	233	270	160	313	14	176	316	38	15	70	578
B3..17	530	684	210	25	250	310	180	330	18	190	350	40	20	95	645
B3..18	595	764	236	28	284	350	200	364	18	215	395	45	20	90	722

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

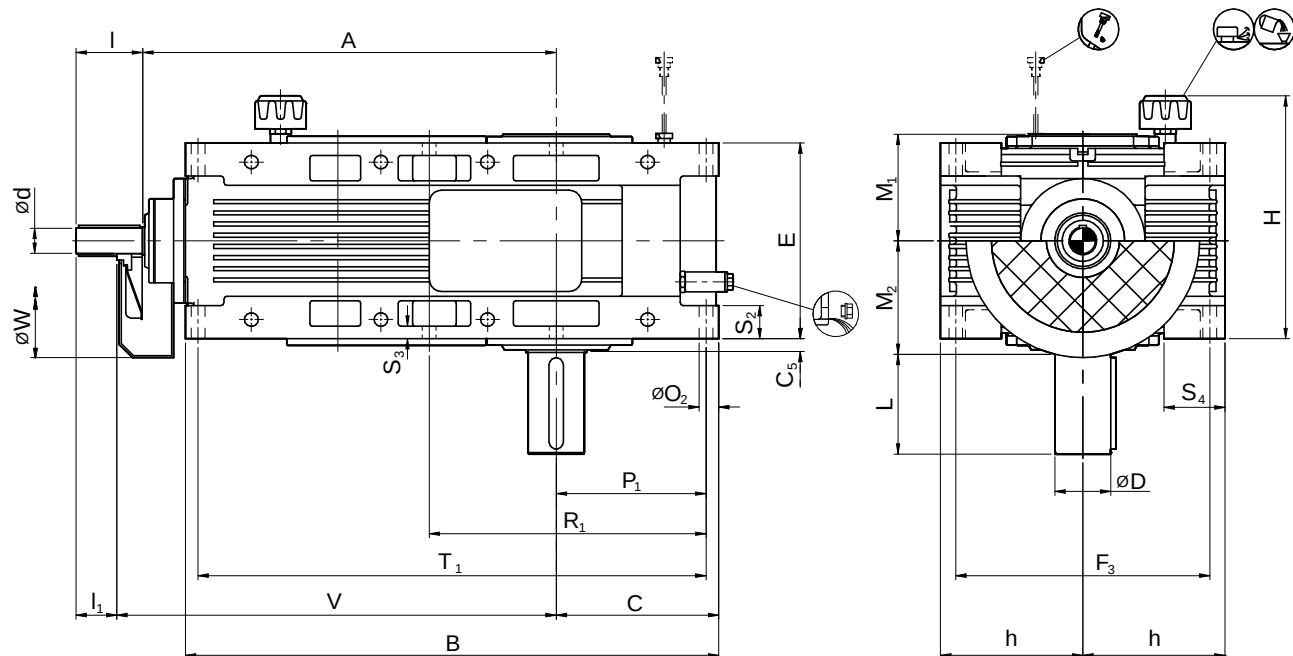
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

VERTICAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B3V

TRIPLE STAGE - SIZE 14 TO 18



Size	Input Shaft								Output Shaft				Back Stop			 lbs
	i = 20-50			i = 56-71												
	i = 22.4-63			i = 71-90												
	i = 25-71			i = 80-100												
	d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾	
B3..14	0.75	3.54	1.57	0.75	3.54	1.57	17.13	9.45	1.89	3.74	4.17	4.92	7.48	3.54	7.09	231
B3..15	0.94	3.94	1.97	0.94	3.94	1.97	18.50	10.63	2.17	3.74	5.00	5.31	8.46	3.74	8.46	320
B3..16	0.94	3.94	1.97	0.94	3.94	1.97	20.87	11.81	2.36	5.12	5.24	5.71	9.45	3.74	8.46	430
B3..17	1.10	3.94	1.97	0.94	3.94	1.97	22.83	13.39	2.76	5.31	5.55	5.91	10.63	3.74	8.46	584
B3..18	1.26	4.33	2.36	1.10	3.94	1.97	25.39	14.17	3.15	6.30	6.22	6.69	12.01	5.51	10.43	783

Size	Foundation														
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T ₁
B3..14	15.16	19.21	6.38	1.18	7.48	7.87	4.92	10.63	0.55	5.75	11.50	1.42		2.76	17.95
B3..15	16.54	21.57	6.97	0.83	8.98	9.06	5.51	12.13	0.55	6.30	11.22	1.77	0.59	2.76	20.28
B3..16	18.90	24.21	7.68	1.12	9.17	10.63	6.30	12.32	0.55	6.93	12.44	1.50	0.59	2.76	22.76
B3..17	20.87	26.93	8.27	0.98	9.84	12.20	7.09	12.99	0.71	7.48	13.78	1.57	0.79	3.74	25.39
B3..18	23.43	30.08	9.29	1.10	11.18	13.78	7.87	14.33	0.71	8.46	15.55	1.77	0.79	3.54	28.43

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

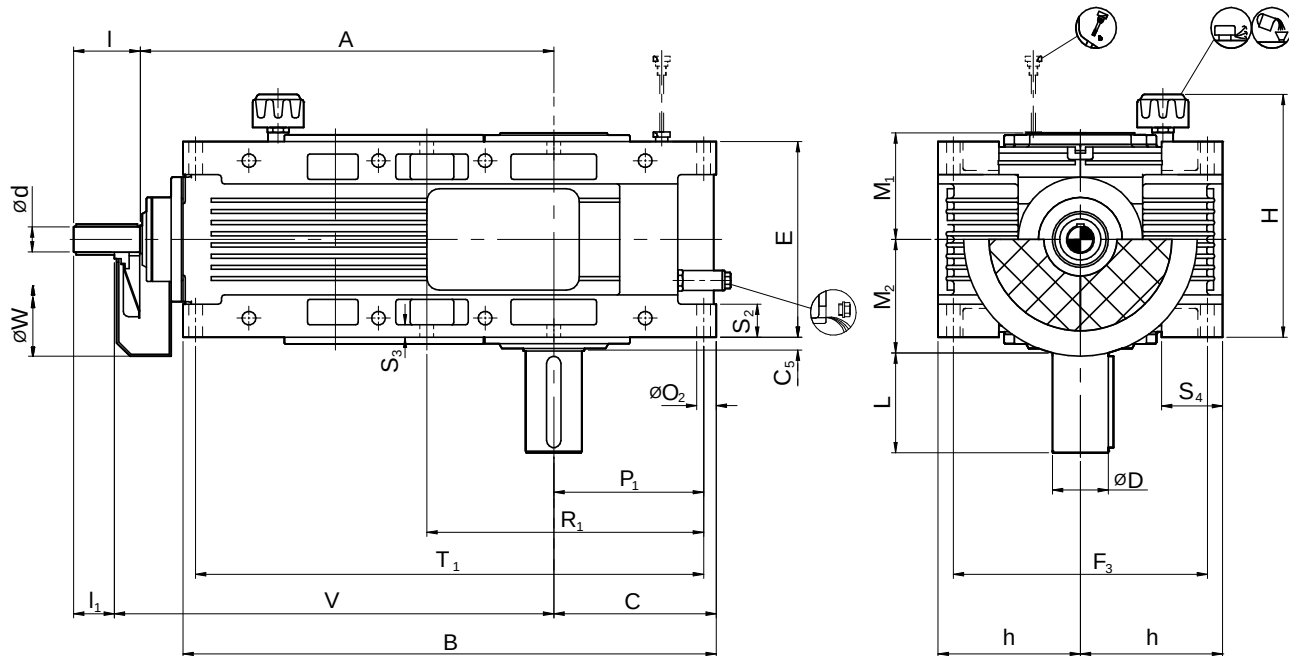
DIMENSIONS IN mm

VERTICAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B3V

TRIPLE STAGE - SIZE 19 TO 26

E



Size	Input Shaft								Output Shaft				Back Stop			 KG
	i = 20-50			i = 56-71												
	i = 22.4-63			i = 71-90												
	i = 25-71			i = 80-100												
	d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾	
B3..19	38	110	60	32	110	60	710	360	90	165	171	180	340	150	265	480
B3..20	42	130	80	38	110	60	795	400	100	200	176	200	385	150	265	645
B3..21	48	130	80	42	130	80	885	460	110	200	210	220	430	190	340	870
B3..22	52	130	80	48	130	80	970	530	120	210	220	230	480	190	340	1170
B3..23	58	135	85	52	130	80	1085	550	140	250	234	260	540	190	340	1590
B3..24	65	155	105	65	155	105	1195	600	160	290	283	295	605	245	440	2145
B3..25	70	155	105	70	155	105	1325	650	170	300	293	305	680	245	440	2895
B3..26	85	180	130	80	180	130	1475	700	190	350	306	345	765	245	440	3885

Size	Foundation															
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T ₁	
B3..19	660	850	265	28.50	303	400	225	383	23	240	440	48.5	22	105	800	
B3..20	745	945	288	43	314	440	250	394	23	262	487	45	24	105	893	
B3..21	835	1050	320	27.50	385	500	280	475	27	295	545	65	28	120	1000	
B3..22	920	1170	355	30	400	560	315	490	27	325	605	60	28	120	1110	
B3..23	1035	1335	405	35	450	630	355	540	33	370	685	70	35	150	1265	
B3..24	1145	1465	435	37.5	515	700	400	605	33	398	753	87.5	35	150	1391	
B3..25	1275	1605	475	37.5	535	800	450	625	33	436	836	80	35	150	1528	
B3..26	1425	1820	540	45	600	890	500	700	39	495	945	100	45	175	1730	

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

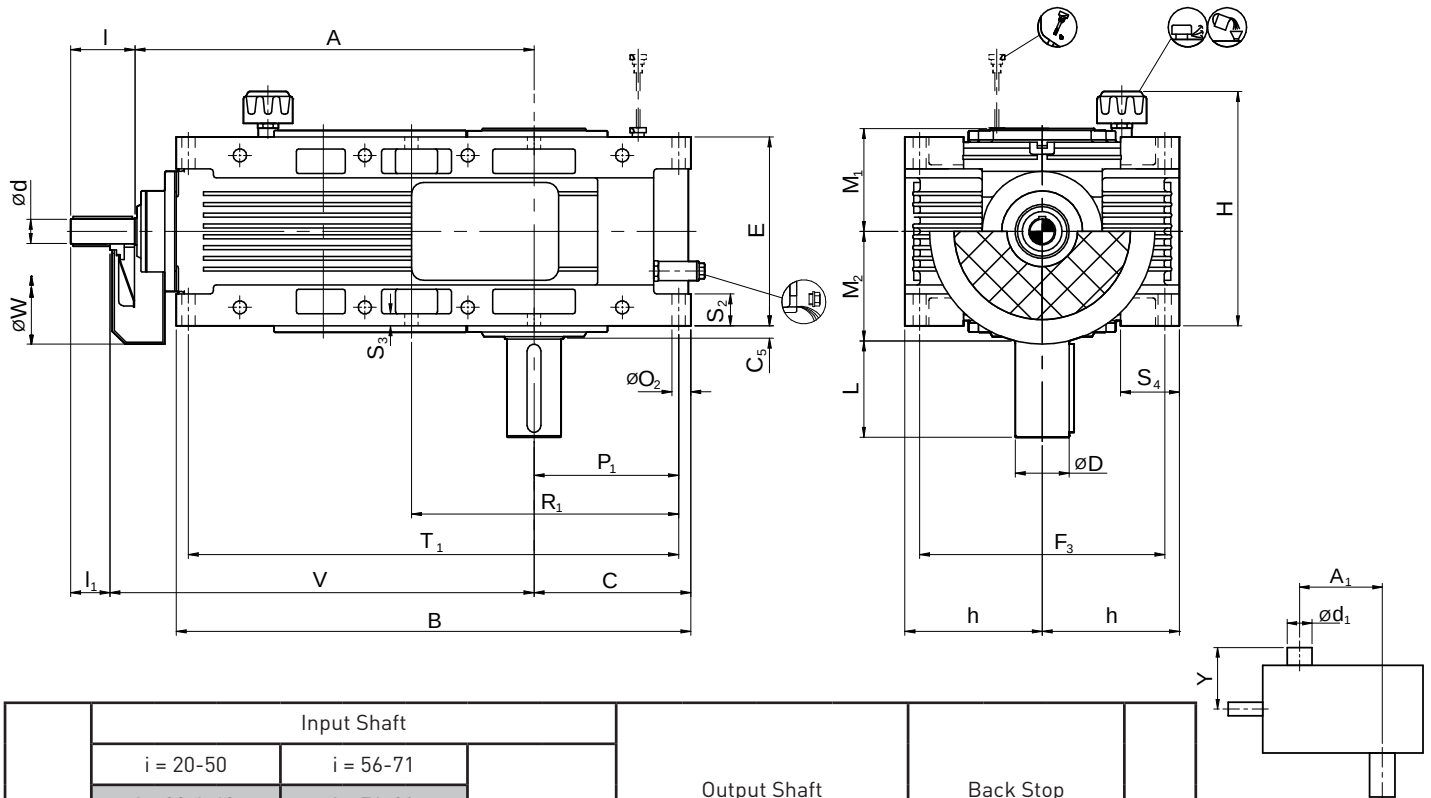
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

VERTICAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B3V

TRIPLE STAGE - SIZE 19 TO 26



Size	Input Shaft								Output Shaft				Back Stop			 lbs
	i = 20-50			i = 56-71												
	i = 22.4-63			i = 71-90												
	i = 25-71			i = 80-100												
	d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾	
B3..19	1.50	4.33	2.36	1.26	4.33	2.36	27.76	14.17	3.54	6.50	6.73	7.09	13.39	5.91	10.43	1058
B3..20	1.65	5.12	3.15	1.50	4.33	2.36	31.10	15.75	3.94	7.87	6.93	7.87	15.16	5.91	10.43	1422
B3..21	1.89	5.12	3.15	1.65	5.12	3.15	34.84	18.11	4.33	7.87	8.27	8.66	16.93	7.48	13.39	1918
B3..22	2.05	5.12	3.15	1.89	5.12	3.15	38.19	20.87	4.72	8.27	8.66	9.06	18.90	7.48	13.39	2579
B3..23	2.28	5.31	3.35	2.05	5.12	3.15	43.11	21.65	5.51	9.84	9.21	10.24	21.26	7.48	13.39	3505
B3..24	2.56	6.10	4.13	2.56	6.10	4.13	47.83	23.62	6.30	11.42	11.14	11.61	23.82	9.65	17.32	4729
B3..25	2.76	6.10	4.13	2.76	6.10	4.13	53.15	25.59	6.69	11.81	11.54	12.01	26.77	9.65	17.32	6382
B3..26	3.35	7.09	5.12	3.15	7.09	5.12	59.06	27.56	7.48	13.78	12.05	13.58	30.12	9.65	17.32	8565

Size	Foundation														
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T ₁
B3..19	25.98	33.46	10.43	1.12	11.93	15.75	8.86	15.08	0.91	9.45	17.32	1.91	0.87	4.13	31.50
B3..20	29.33	37.20	11.34	1.69	12.36	4.33	9.84	15.51	0.91	10.31	19.17	1.77	0.94	4.13	35.16
B3..21	32.87	41.34	12.60	1.08	15.16	19.69	11.02	18.70	1.06	11.61	21.46	2.56	1.10	4.72	39.37
B3..22	36.22	46.06	13.98	1.18	15.75	22.05	12.40	19.29	1.06	12.80	23.82	2.36	1.10	4.72	43.70
B3..23	40.75	52.56	15.94	1.38	17.72	24.80	13.98	21.26	1.30	14.57	26.97	2.76	1.38	5.91	49.80
B3..24	45.08	57.68	17.13	1.48	20.28	27.56	15.75	23.82	1.30	15.67	29.65	3.44	1.38	5.91	54.76
B3..25	50.20	63.19	18.70	1.48	21.06	31.50	17.72	24.61	1.30	17.17	32.91	3.15	1.38	5.91	60.16
B3..26	56.10	71.65	21.26	1.77	23.62	35.04	19.69	27.56	1.54	19.49	37.20	3.94	1.77	6.89	68.11

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

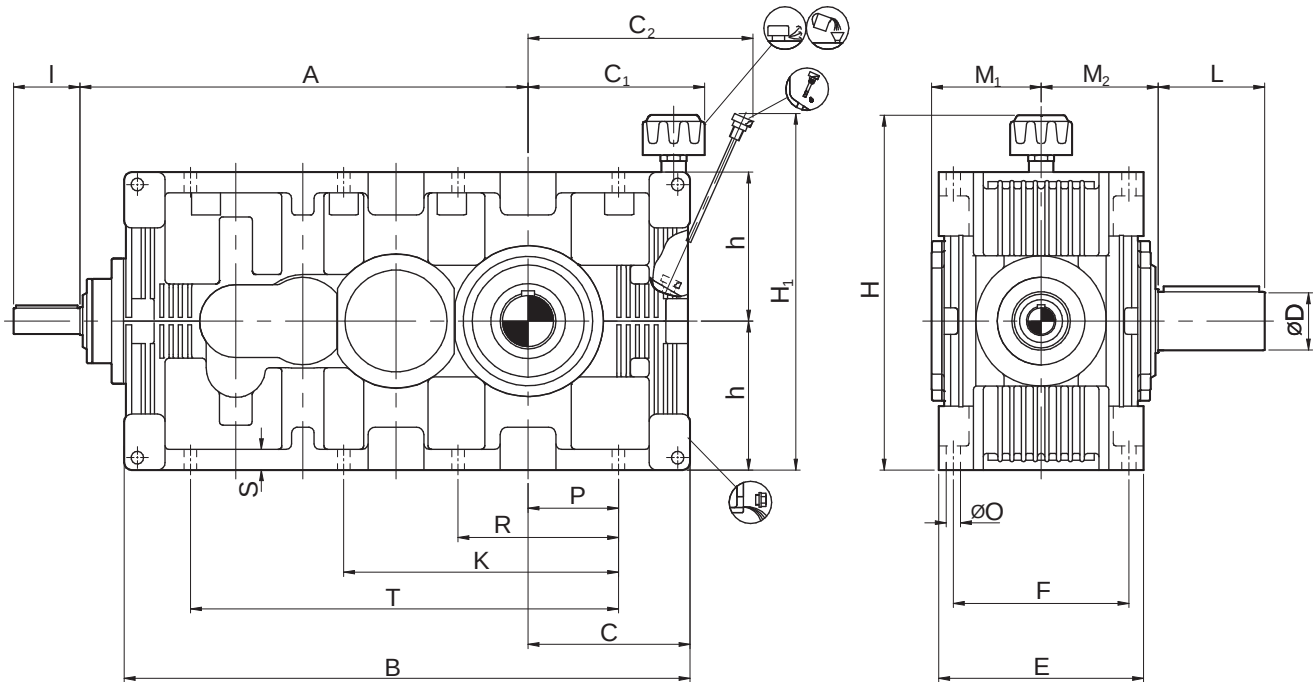
DIMENSIONS IN mm

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B4H

QUADRUPLE STAGE - SIZE 17 TO 18

E



Size	Input Shaft				Output Shaft				Back Stop				
	i = 80-225		i = 250-400										
	i = 112-400		i = 450-560										
	d	l	d	l	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
B4..17	19	90	19	90	70	135	141	150	350	85	210	265	9
B4..18	24	100	24	100	80	160	158	170	395	95	255	355	13

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

Modification of dimensions reserved.

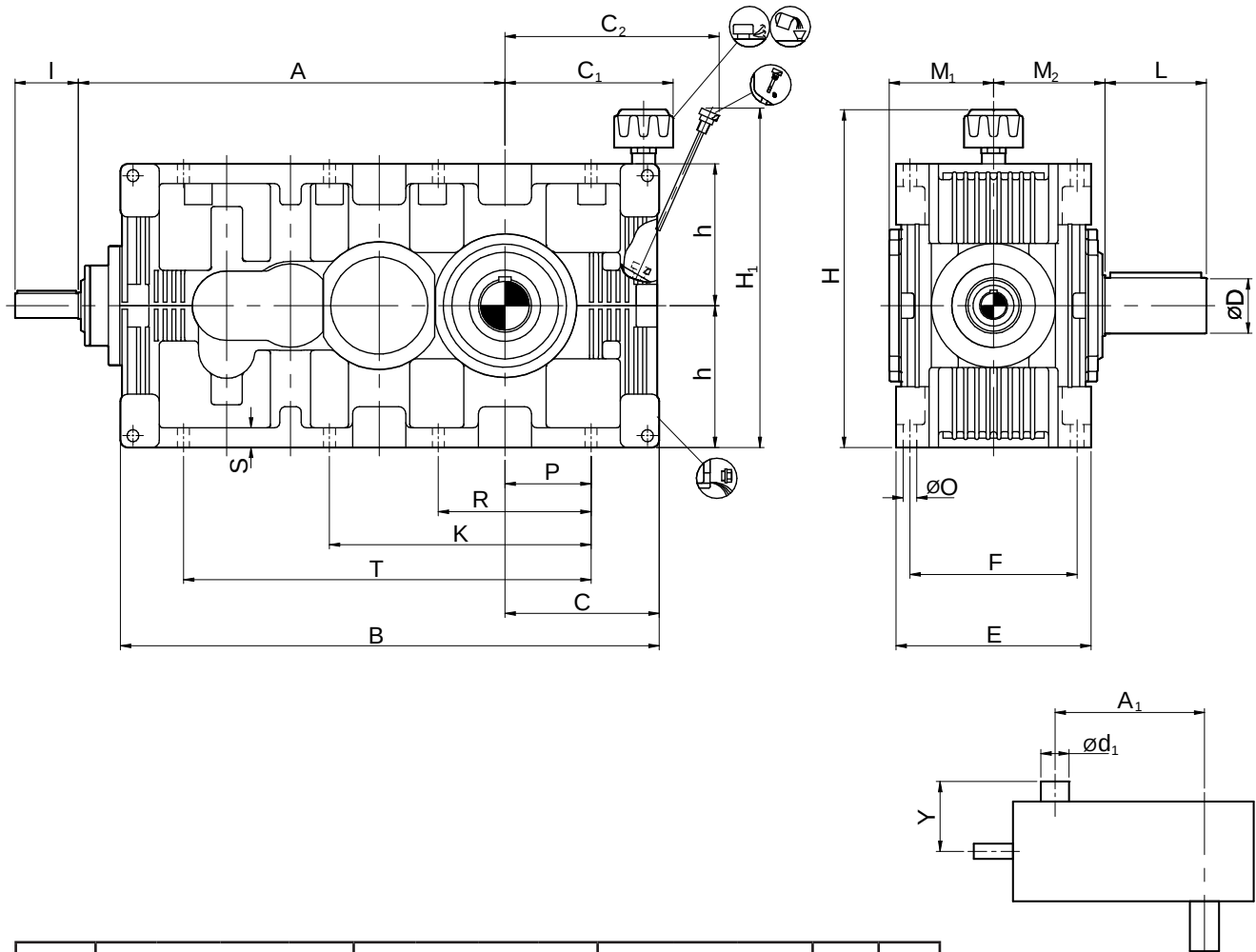
Shaft ends with keys according to DIN 6885, part 1, Shape A.

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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



Size	Input Shaft				Output Shaft				Back Stop				
	i = 80-225		i = 250-400										
	i = 112-400		i = 450-560										
	d	l	d	l	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
B4..17	0.75	3.54	0.75	3.54	2.76	5.31	5.55	5.91	13.78	3.35	8.27	584	2.4
B4..18	0.94	3.94	0.94	3.94	3.15	6.30	6.22	6.69	15.55	3.74	10.04	783	3.4

Size	Foundation															
	A	B	C	C ₁ ²⁾	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ²⁾	K	O	P	R	S	T
B4..17	21.46	27.40	8.27	9.37	10.12	9.84	8.27	7.09	14.57	17.32	-	0.71	4.53	8.27	1.26	19.49
B4..18	23.62	30.98	9.29	10.35	11.06	11.18	9.06	7.87	15.91	18.90	-	0.71	5.31	9.45	1.26	22.24

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

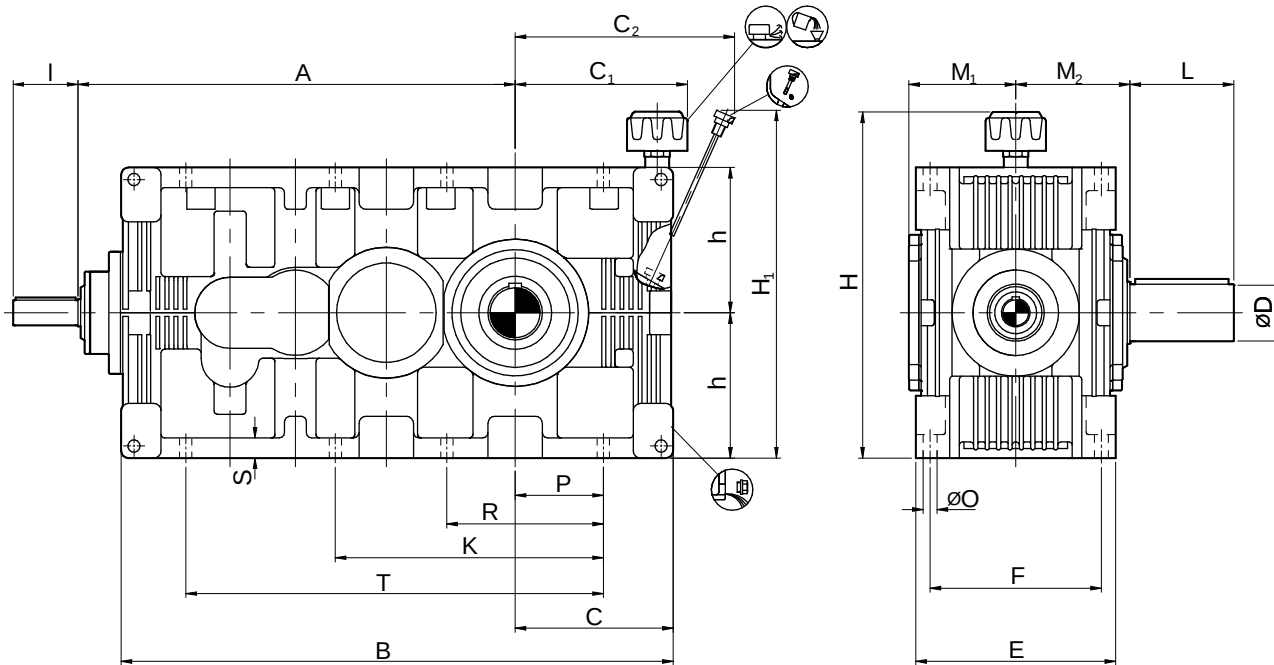
DIMENSIONS IN mm

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

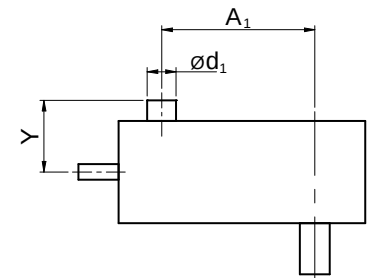
TYPE B4H

QUADRUPLE STAGE - SIZE 19 TO 26

E



Size	Input Shaft				Output Shaft				Back Stop				
	i = 80-225		i = 250-400										
	i = 100-315		i = 355-560										
	i = 112-400		i = 450-560										
	d	l	d	l	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
B4...19	24	100	24	100	90	165	171	180	440	95	255	480	18
B4...20	28	100	24	100	100	200	176	200	495	95	255	645	26
B4...21	32	110	28	100	110	200	210	220	555	135	310	870	33
B4...22	38	110	32	110	120	210	220	230	620	135	310	1170	46
B4...23	42	130	38	110	140	250	234	260	700	140	310	1590	65
B4...24	48	130	42	130	160	290	283	295	785	175	415	2145	90
B4...25	52	130	48	130	170	300	293	305	880	175	415	2895	125
B4...26	58	135	52	130	190	350	306	345	990	190	415	3885	180



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

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

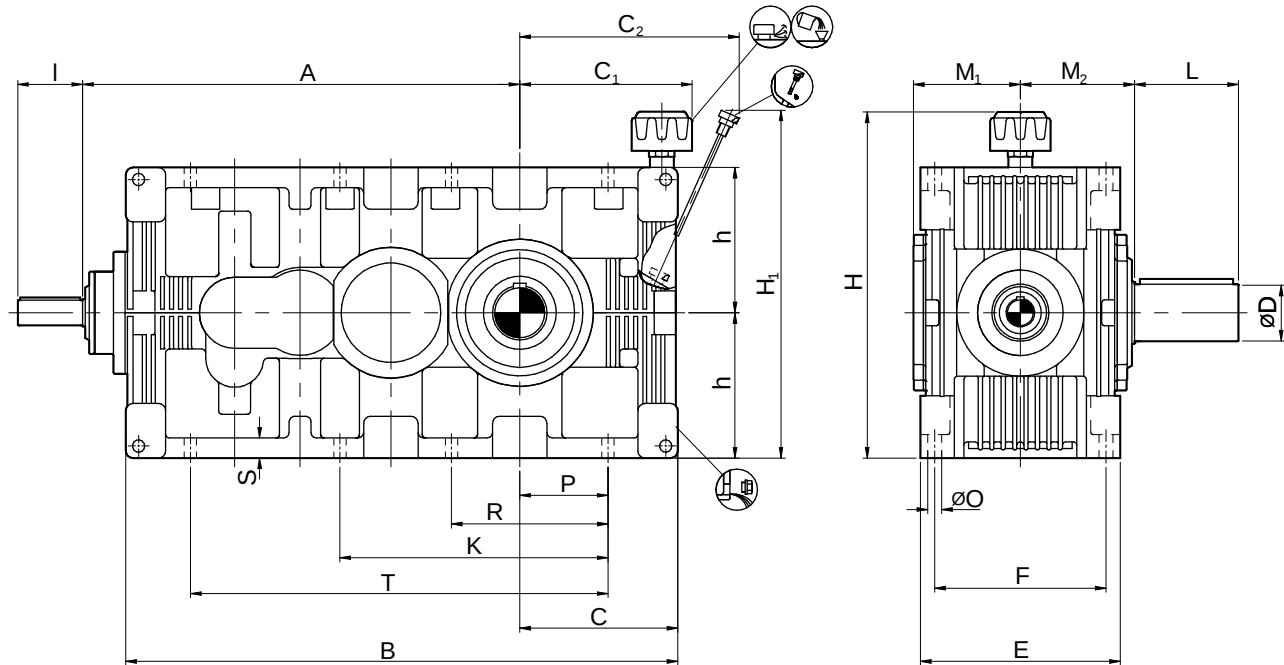
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

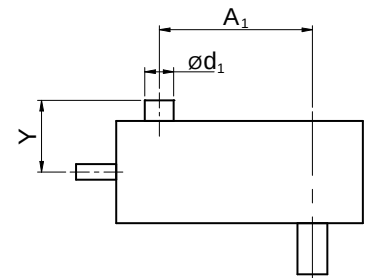
HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B4H

QUADRUPLE STAGE - SIZE 19 TO 26



Size	Input Shaft				Output Shaft				Back Stop				
	i = 80-225		i = 250-400										
	i = 100-315		i = 355-560										
	i = 112-400		i = 450-560										
	d	l	d	l	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
B4..19	0.94	3.94	0.94	3.94	3.54	6.50	6.73	7.09	17.32	3.74	10.04	1058	4.8
B4..20	1.10	3.94	0.94	3.94	3.94	7.87	6.93	7.87	19.49	3.74	10.04	1422	6.9
B4..21	1.26	4.33	1.10	3.94	4.33	7.87	8.27	8.66	21.85	5.31	12.20	1918	8.7
B4..22	1.50	4.33	1.26	4.33	4.72	8.27	8.66	9.06	24.41	5.31	12.20	2579	12.2
B4..23	1.65	5.12	1.50	4.33	5.51	9.84	9.21	10.24	27.56	5.51	12.20	3505	17.2
B4..24	1.89	5.12	1.65	5.12	6.30	11.42	11.14	11.61	30.91	6.89	16.34	4729	23.8
B4..25	2.05	5.12	1.89	5.12	6.69	11.81	11.54	12.01	34.65	6.89	16.34	6382	33.0
B4..26	2.28	5.31	2.05	5.12	7.48	13.78	12.05	13.58	38.98	7.48	16.34	8565	47.6



Size	Foundation															
	A	B	C	C ₁ ²⁾	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	K	O	P	R	S	T
B4..19	26.77	34.84	10.43	11.14	12.40	11.93	9.84	8.86	17.91	20.87	-	0.91	5.71	10.04	1.42	24.21
B4..20	29.72	38.86	11.34	11.97	13.58	12.36	10.63	9.84	19.53	22.83	-	0.91	6.50	11.42	1.42	27.76
B4..21	33.27	43.23	12.60	14.13	15.51	15.16	12.20	11.02	22.52	25.59	-	1.06	7.09	12.40	1.77	30.71
B4..22	37.01	48.03	13.98	15.35	16.89	15.75	13.39	12.40	25.00	28.35	-	1.06	7.87	13.98	1.77	34.65
B4..23	41.73	54.21	15.94	16.61	18.94	17.72	14.96	13.98	27.76	31.50	25.79	1.30	8.66	15.94	2.17	38.78
B4..24	46.85	59.84	17.13	17.80	21.30	20.28	16.14	15.75	31.30	35.04	29.13	1.30	9.65	17.72	2.17	43.70
B4..25	51.97	66.54	18.70	19.41	23.27	21.06	18.11	17.72	34.06	38.98	33.07	1.30	11.02	20.08	2.17	49.02
B4..26	58.46	75.59	21.26	21.77	25.94	23.62	20.08	19.69	37.56	42.91	37.01	1.54	12.40	22.64	2.56	55.12

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

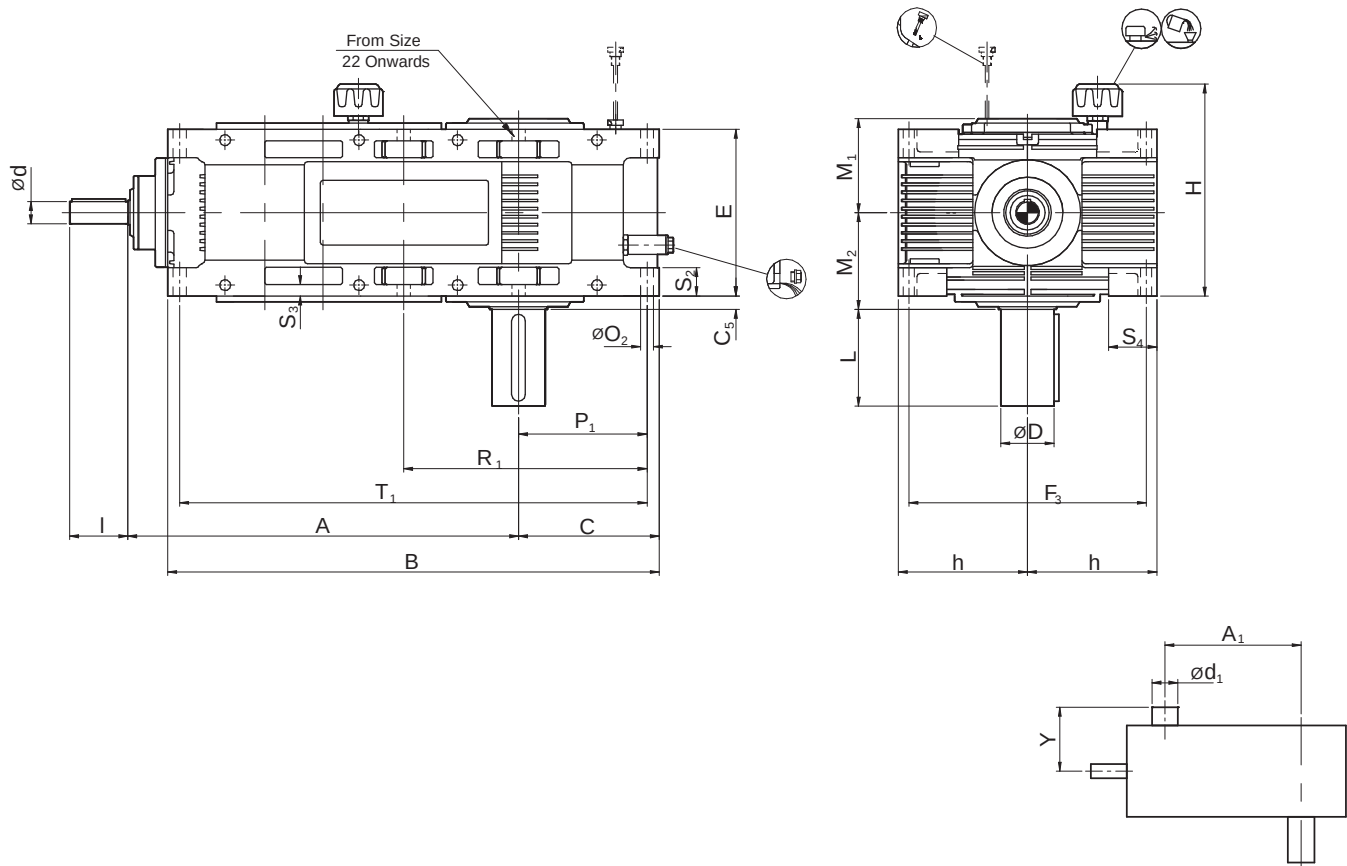
DIMENSIONS IN mm

VERTICAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B4V

QUADRUPLE STAGE - SIZE 17 TO 18

E



Size	Input Shaft				Output Shaft				Back Stop			 KG
	i = 80-225		i = 250-400									
	i = 112-400		i = 450-560									
	d	l	d	l	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾	
B4..17	19	90	19	90	70	135	141	150	350	85	210	265
B4..18	24	100	24	100	80	160	158	170	395	95	255	355

Size	Foundation														
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T
B4..17	545	696	210	25	250	310	180	330	18	190	350	40	20	90	655
B4..18	600	787	236	28	284	350	200	364	18	215	395	45	20	90	744

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

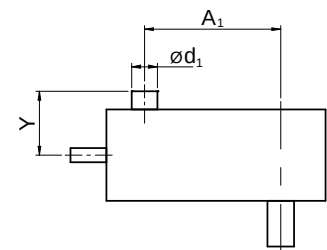
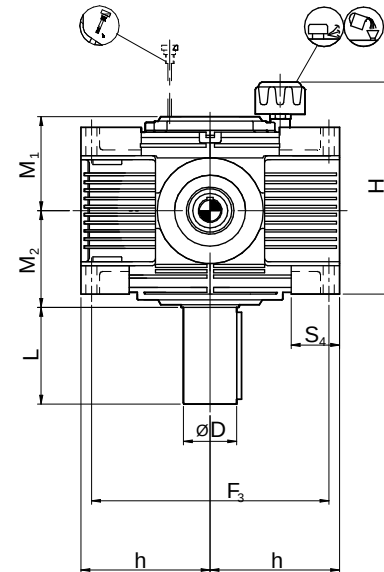
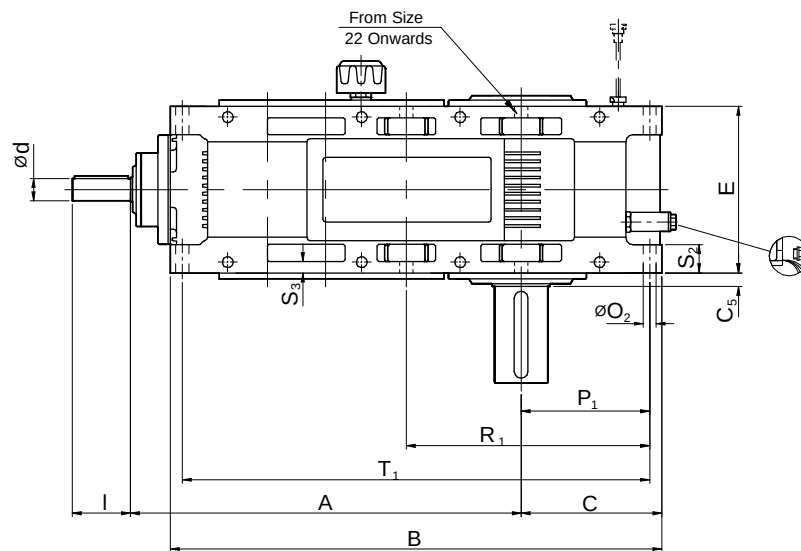
DIMENSIONS IN inch

VERTICAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B4V

QUADRUPLE STAGE - SIZE 17 TO 18

E



Size	Input Shaft				Output Shaft				Back Stop			 lbs
	i = 80-225		i = 250-400									
	i = 112-400		i = 450-560									
	d	l	d	l	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾	
B4..17	0.75	3.54	0.75	3.54	2.76	5.31	5.55	5.91	13.78	3.35	8.27	584
B4..18	0.94	3.94	0.94	3.94	3.15	6.30	6.22	6.69	15.55	3.74	10.04	783

Size	Foundation														
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T
B4..17	21.46	27.40	8.27	0.98	9.84	12.20	7.09	12.99	0.71	7.48	13.78	1.57	0.79	3.54	25.79
B4..18	23.62	30.98	9.29	1.10	11.18	13.78	7.87	14.33	0.71	8.46	15.55	1.77	0.79	3.54	29.29

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

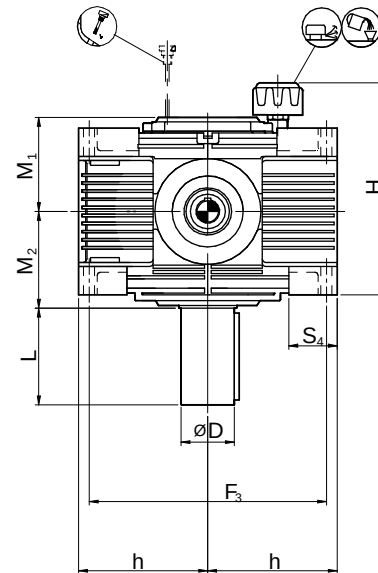
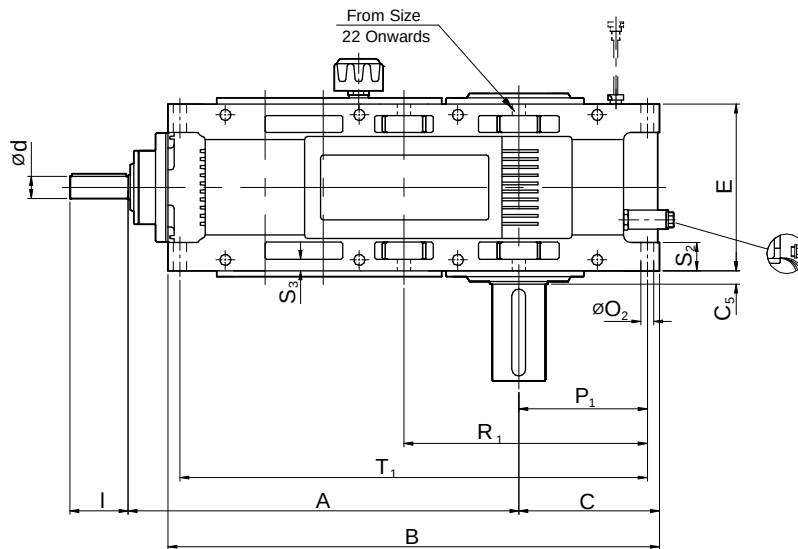
DIMENSIONS IN mm

VERTICAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B4V

QUADRUPLE STAGE - SIZE 19 TO 26

E



Size	Input Shaft				Output Shaft				Back Stop			 KG
	i = 80-225		i = 250-400									
	i = 100-315		i = 355-560									
	i = 112-400		i = 450-560									
d	l	d	l	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
B4..19	24	100	24	100	90	165	171	180	440	95	255	480
B4..20	28	100	24	100	100	200	176	200	495	95	255	645
B4..21	32	110	28	100	110	200	210	220	555	135	310	870
B4..22	38	110	32	110	120	210	220	230	620	135	310	1170
B4..23	42	130	38	110	140	250	234	260	700	140	310	1590
B4..24	48	130	42	130	160	290	283	295	785	175	415	2145
B4..25	52	130	48	130	170	300	293	305	880	175	415	2895
B4..26	58	135	52	130	190	350	306	345	990	190	415	3885

Size	Foundation														
	A	B	C	C_5	E	F_3	h	$H^{2)}$	O_2	P_1	R_1	S_2	S_3	S_4	T_1
B4..19	680	885	265	28.50	303	400	225	383	23	240	440	48.5	22	105	836
B4..20	755	987	288	43	314	440	250	394	23	262	487	45	24	105	935
B4..21	845	1098	320	27.50	385	500	280	475	27	295	545	65	28	120	1045
B4..22	940	1220	355	30	400	560	315	490	27	325	605	60	28	120	1160
B4..23	1060	1377	405	35	450	630	355	540	33	370	685	70	35	150	1305
B4..24	1190	1520	435	37.5	515	700	400	605	33	398	753	87.5	35	150	1443
B4..25	1320	1690	475	37.5	535	800	450	625	33	436	836	80	35	150	1612
B4..26	1485	1920	540	45	600	890	500	700	39	495	945	100	45	175	1830

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to $\phi 50$ k6; over $\phi 50$ m6.

1) Max. dimensions; details acc. to order related documents

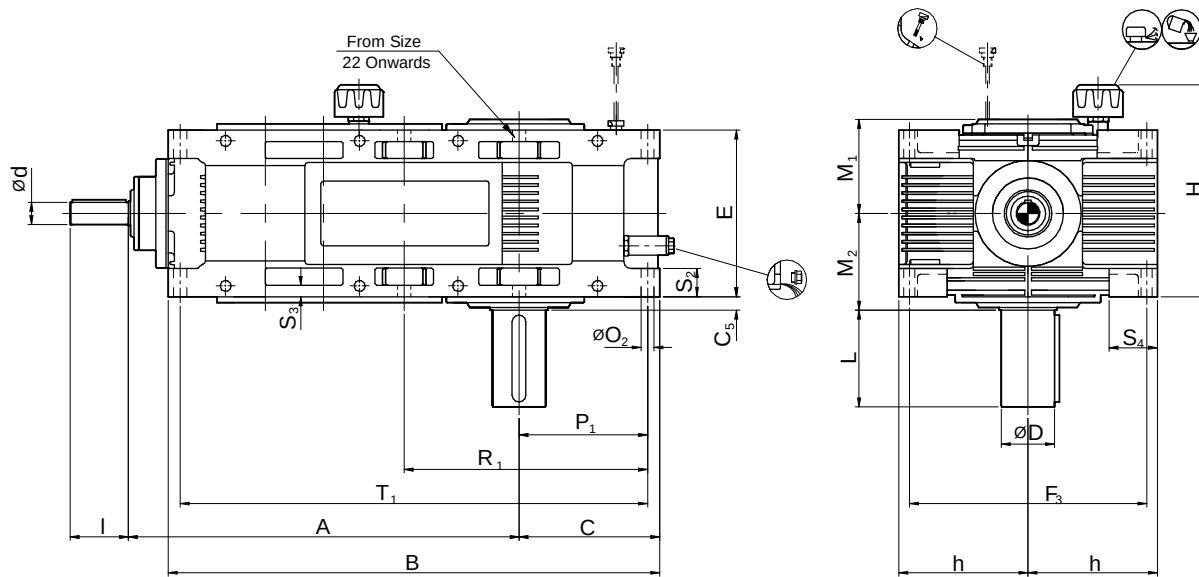
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

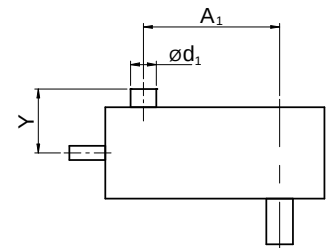
VERTICAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE B4V

QUADRUPLE STAGE - SIZE 19 TO 26



Size	Input Shaft				Output Shaft				Back Stop			 lbs
	i = 80-225		i = 250-400									
	i = 100-315		i = 355-560									
	i = 112-400		i = 450-560									
	d	l	d	l	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾	
B4..19	0.94	3.94	0.94	3.94	3.54	6.50	6.73	7.09	17.32	3.74	10.04	1058
B4..20	1.10	3.94	0.94	3.94	3.94	7.87	6.93	7.87	19.49	3.74	10.04	1422
B4..21	1.26	4.33	1.10	3.94	4.33	7.87	8.27	8.66	21.85	5.31	12.20	1918
B4..22	1.50	4.33	1.26	4.33	4.72	8.27	8.66	9.06	24.41	5.31	12.20	2579
B4..23	1.65	5.12	1.50	4.33	5.51	9.84	9.21	10.24	27.56	5.51	12.20	3505
B4..24	1.89	5.12	1.65	5.12	6.30	11.42	11.14	11.61	30.91	6.89	16.34	4729
B4..25	2.05	5.12	1.89	5.12	6.69	11.81	11.54	12.01	34.65	6.89	16.34	6382
B4..26	2.28	5.31	2.05	5.12	7.48	13.78	12.05	13.58	38.98	7.48	16.34	8565



Size	Foundation														
	A	B	C	C ₅	E	F ₃	h	H ²⁾	O ₂	P ₁	R ₁	S ₂	S ₃	S ₄	T ₁
B4..19	26.77	34.84	10.43	1.12	11.93	15.75	8.86	15.08	0.91	9.45	17.32	1.91	0.87	4.13	32.91
B4..20	29.72	38.86	11.34	1.69	12.36	17.32	9.84	15.51	0.91	10.31	19.17	1.77	0.94	4.13	36.81
B4..21	33.27	43.23	12.60	1.08	15.16	19.69	11.02	18.70	1.06	11.61	21.46	2.56	1.10	4.72	41.14
B4..22	37.01	48.03	13.98	1.18	15.75	22.05	12.40	19.29	1.06	12.80	23.82	2.36	1.10	4.72	45.67
B4..23	41.73	54.21	15.94	1.38	17.72	24.80	13.98	21.26	1.30	14.57	26.97	2.76	1.38	5.91	51.38
B4..24	46.85	59.84	17.13	1.48	20.28	27.56	15.75	23.82	1.30	15.67	29.65	3.44	1.38	5.91	56.81
B4..25	51.97	66.54	18.70	1.48	21.06	31.50	17.72	24.61	1.30	17.17	32.91	3.15	1.38	5.91	63.46
B4..26	58.46	75.59	21.26	1.77	23.62	35.04	19.69	27.56	1.54	19.49	37.20	3.94	1.77	6.89	72.05

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

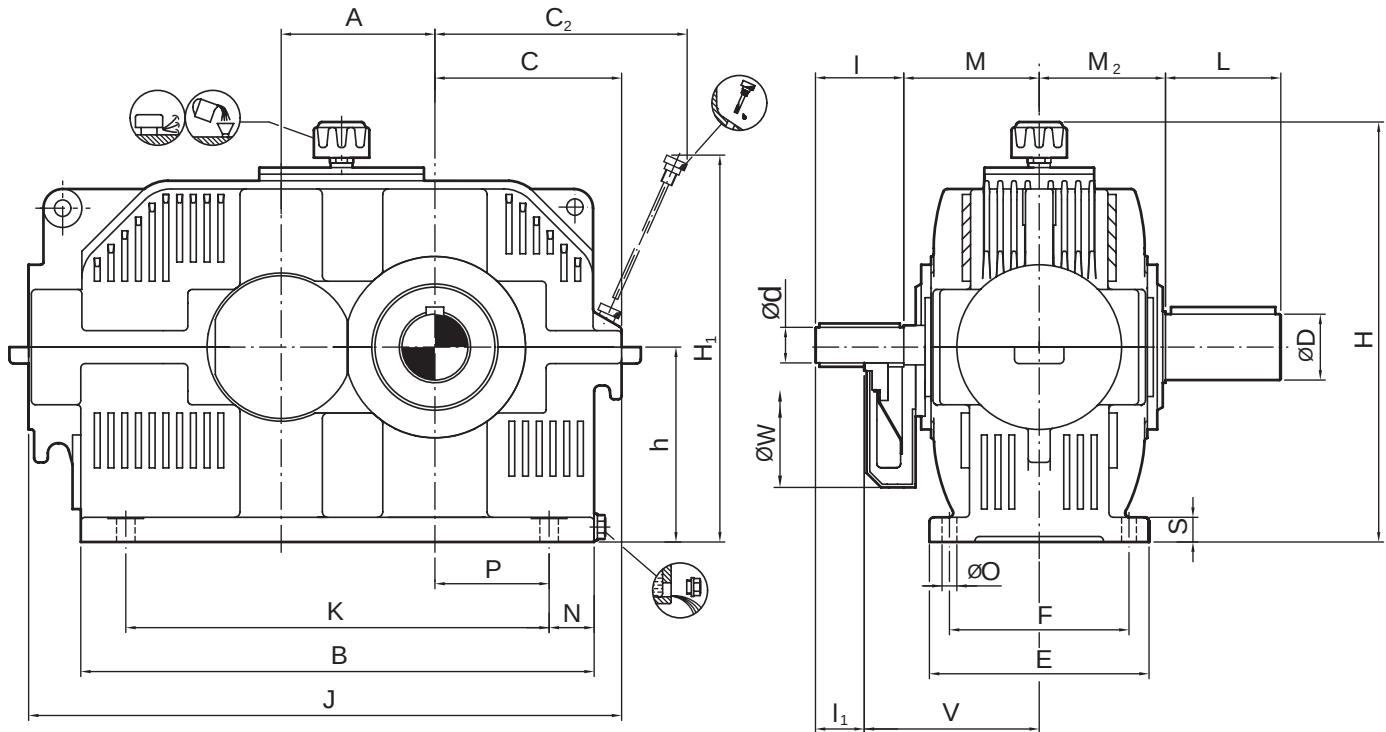
DIMENSIONS IN mm

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE S1HN

SINGLE STAGE - SIZE 11 TO 18

E



Size	Input Shaft									Output Shaft				
	i = 1.25 - 3.55			i = 4 - 5										
	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂		
S1..11	25	100	50	20	100	50	150	160	180	32	60	120	35	1.5
S1..13	35	110	60	30	110	60	150	200	180	45	90	125	65	2.5
S1..15	50	130	80	40	130	80	160	210	230	55	90	135	115	5.5
S1..17	60	155	105	50	130	80	165	215	300	70	125	150	205	9
S1..18	70	155	105	55	135	85	190	240	300	80	150	170	275	15

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	J	K	N	O	P	S
S1..11	80	268	115	171	180	150	100	248	290	331	175	36	14	60	24
S1..13	100	349	135	195	190	150	125	295	340	415	220	37	14	75	24
S1..15	125	432	165	231	228	170	160	352	410	513	290	38	14	100	24
S1..17	160	536	205	282	250	210	200	432	480	637	350	48	18	120	32
S1..18	180	600	220	311	284	230	225	475	525	700	410	43	18	145	32

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

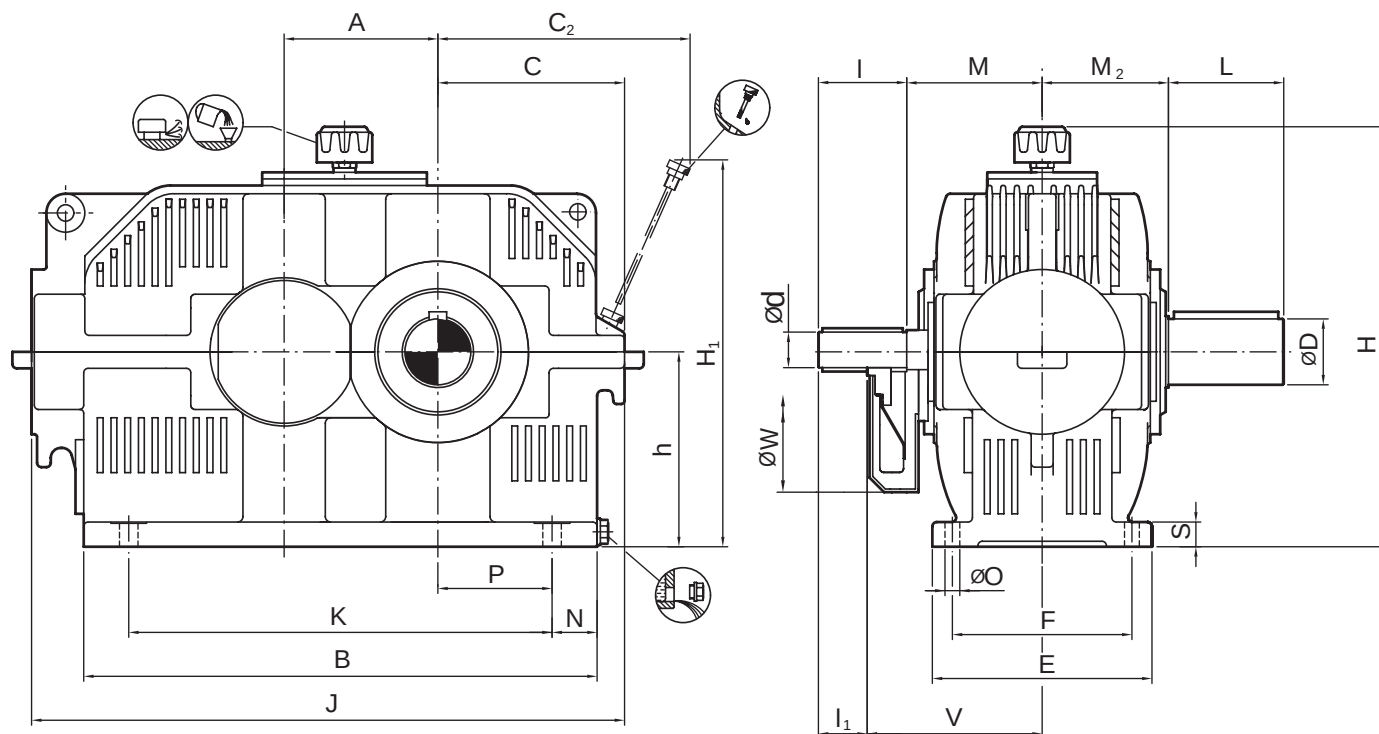
1) Max. dimensions; details acc. to order related documents

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

DIMENSIONS IN inch
HORIZONTAL MOUNTING - HELICAL GEAR UNIT

SERIES E
TYPE S1HN
SINGLE STAGE - SIZE 11 TO 18

E



Size	Input Shaft									Output Shaft				
	i = 1.25 - 3.55			i = 4 - 5										
	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂		
S1..11	0.98	3.94	1.97	0.79	3.94	1.97	4.33	6.30	7.09	1.26	2.36	4.33	77	0.4
S1..13	1.38	4.33	2.36	1.18	4.33	2.36	5.91	7.87	7.09	1.77	3.54	4.92	143	0.7
S1..15	1.97	5.12	3.15	1.57	5.12	3.15	6.30	8.27	9.06	2.17	3.54	5.31	254	1.5
S1..17	2.36	6.10	4.13	1.97	5.12	3.15	6.50	8.46	11.81	2.76	4.92	5.91	452	2.4
S1..18	2.76	6.10	4.13	2.17	5.31	3.35	7.48	9.45	11.81	3.15	5.91	6.69	606	4.0

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ²⁾	J	K	N	O	P	S
S1..11	3.15	10.55	4.53	6.73	7.09	5.91	3.94	9.76	11.42	13.03	6.89	1.42	0.55	2.36	0.94
S1..13	3.94	13.74	5.31	7.68	7.48	5.91	4.92	11.61	13.39	16.34	8.66	1.46	0.55	2.95	0.94
S1..15	4.92	17.01	6.50	9.09	8.98	6.69	6.30	13.86	16.14	20.20	11.42	1.50	0.55	3.94	0.94
S1..17	6.30	21.10	8.07	11.10	9.84	8.27	7.87	17.01	18.90	25.08	13.78	1.89	0.71	4.72	1.26
S1..18	7.09	23.62	8.66	12.24	11.18	9.06	8.86	18.70	20.67	27.56	16.14	1.69	0.71	5.71	1.26

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

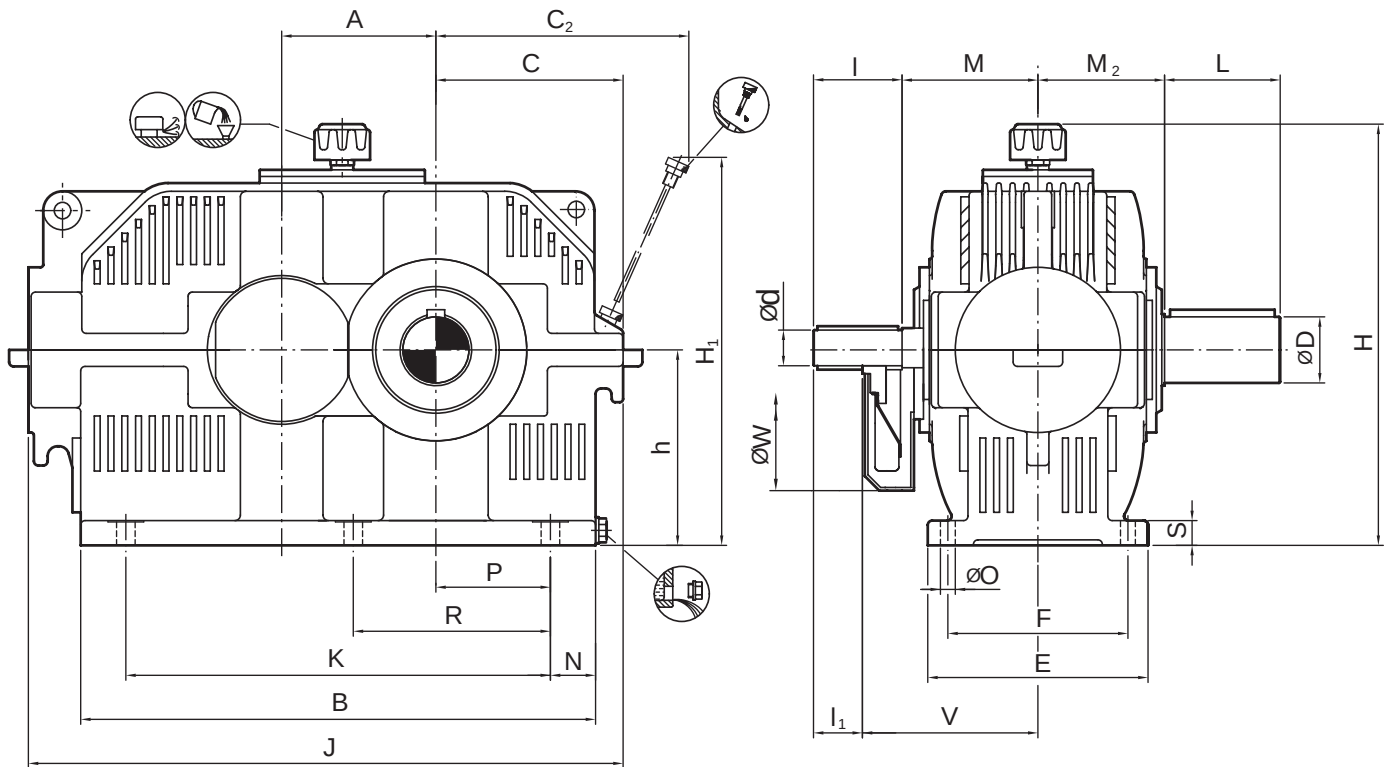
DIMENSIONS IN mm

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE S1HN

SINGLE STAGE - SIZE 20 TO 26

E



Size	Input Shaft									Output Shaft				
	i = 1.25 - 3.55			i = 4 - 5										
	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂		
S1..20	85	180	130	70	155	105	215	265	380	100	175	210	320	25
S1..21	95	180	130	80	180	130	260	310	530	110	180	220	415	36
S1..22	105	220	170	90	180	130	270	320	530	120	200	230	570	50
S1..23	115	220	170	95	180	130	280	330	530	140	225	260	760	62
S1..24	130	250	200	110	220	170	320	370	530	160	260	295	1025	110
S1..25	145	250	200	120	220	170	360	410	600	170	270	305	1400	125
S1..26	160	300	250	130	250	200	360	410	600	190	300	345	1900	160

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ²⁾	J	K	N	O	P	R	S
S1..20	225	755	275	387	314	270	280	588	620	890	520	54	23	180	—	36
S1..21	250	843	305	435	385	310	315	664	685	980	570	64	27	195	—	45
S1..22	280	935	340	474	400	340	355	741	760	1080	630	75	27	215	370	45
S1..23	315	1054	375	537	450	380	400	831	845	1210	705	87	33	240	420	55
S1..24	355	1169	425	598	515	410	450	908	940	1340	810	87	33	280	480	55
S1..25	400	1311	475	670	535	460	500	1013	1040	1530	910	98	33	315	540	55
S1..26	450	1476	535	753	600	510	560	1137	1150	1720	1025	108	39	355	615	65

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

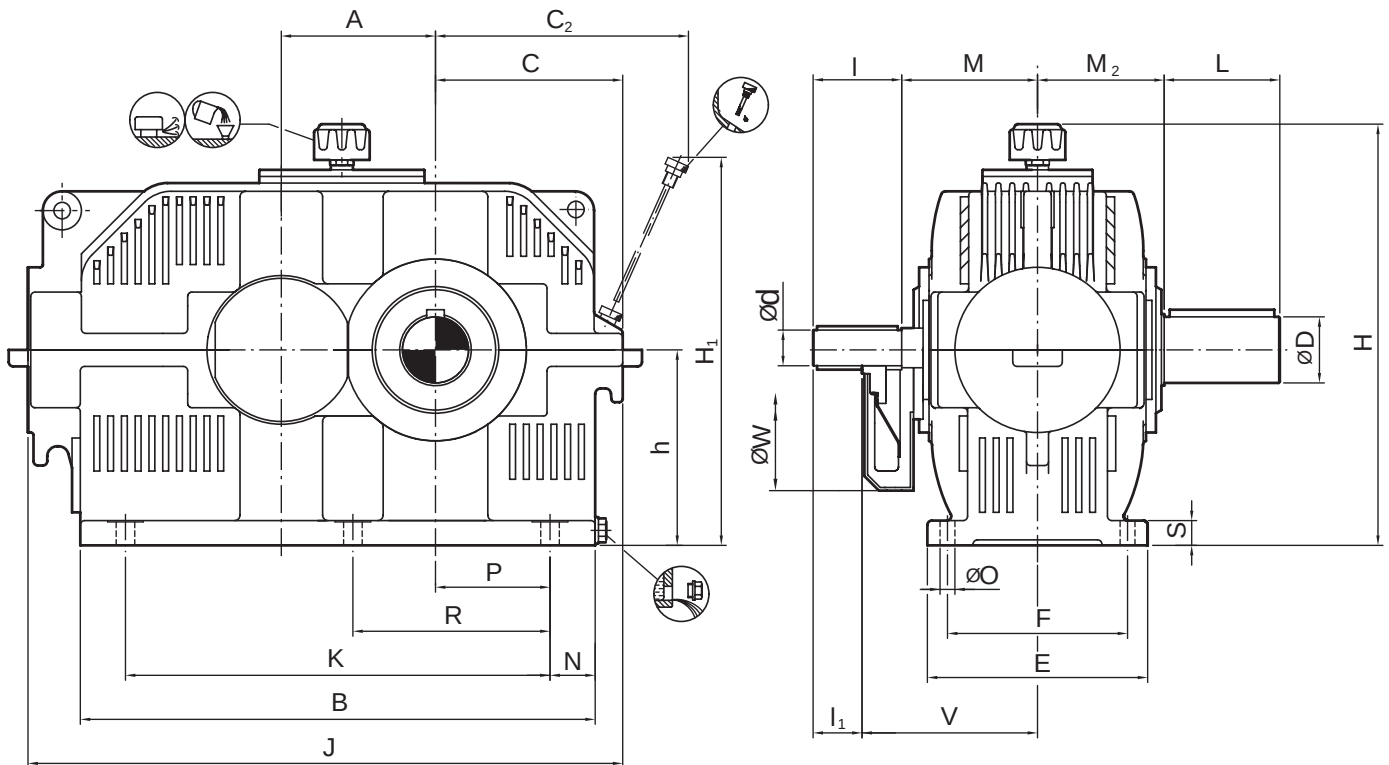
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE S1HN

SINGLE STAGE - SIZE 20 TO 26



Size	Input Shaft									Output Shaft				
	i = 1.25 - 3.55			i = 4 - 5										
	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂		
S1..20	3.35	7.09	5.12	2.76	6.10	4.13	8.46	10.43	14.96	3.94	6.89	8.27	705	6.6
S1..21	3.74	7.09	5.12	3.15	7.09	5.12	10.24	12.20	20.87	4.33	7.09	8.66	915	9.5
S1..22	4.13	8.66	6.69	3.54	7.09	5.12	10.63	12.60	20.87	4.72	7.87	9.06	1257	13.2
S1..23	4.53	8.66	6.69	3.74	7.09	5.12	11.02	12.99	20.87	5.51	8.86	10.24	1676	16.4
S1..24	5.12	9.84	7.87	4.33	8.66	6.69	12.60	14.57	20.87	6.30	10.24	11.61	2260	29.1
S1..25	5.71	9.84	7.87	4.72	8.66	6.69	14.17	16.14	23.62	6.69	10.63	12.01	3086	33.0
S1..26	6.30	11.81	9.84	5.12	9.84	7.87	14.17	16.14	23.62	7.48	11.81	13.58	4189	42.3

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	J	K	N	O	P	R	S
S1..20	8.86	29.72	10.83	15.24	12.36	10.63	11.02	23.15	24.41	35.04	20.47	2.13	0.91	7.09		1.42
S1..21	9.84	33.19	12.01	17.13	15.16	12.20	12.40	26.14	26.97	38.58	22.44	2.52	1.06	7.68		1.77
S1..22	11.02	36.81	13.39	18.66	15.75	13.39	13.98	29.17	29.92	42.52	24.80	2.95	1.06	8.46	14.57	1.77
S1..23	12.40	41.50	14.76	21.14	17.72	14.96	15.75	32.72	33.27	47.64	27.76	3.43	1.30	9.45	16.54	2.17
S1..24	13.98	46.02	16.73	23.54	20.28	16.14	17.72	35.75	37.01	52.76	31.89	3.43	1.30	11.02	18.90	2.17
S1..25	15.75	51.61	18.70	26.38	21.06	18.11	19.68	39.88	40.94	60.24	35.83	3.86	1.30	12.40	21.26	2.17
S1..26	17.72	58.11	21.06	29.65	23.62	20.08	22.05	44.76	45.28	67.72	40.35	4.25	1.54	13.98	24.21	2.56

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

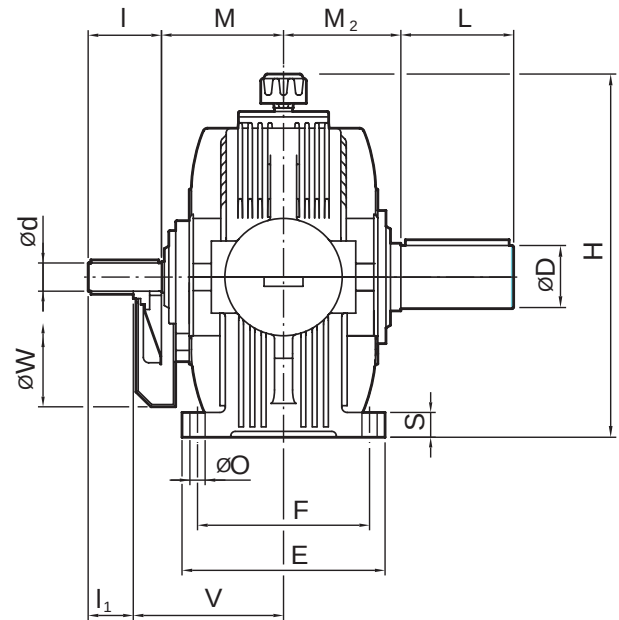
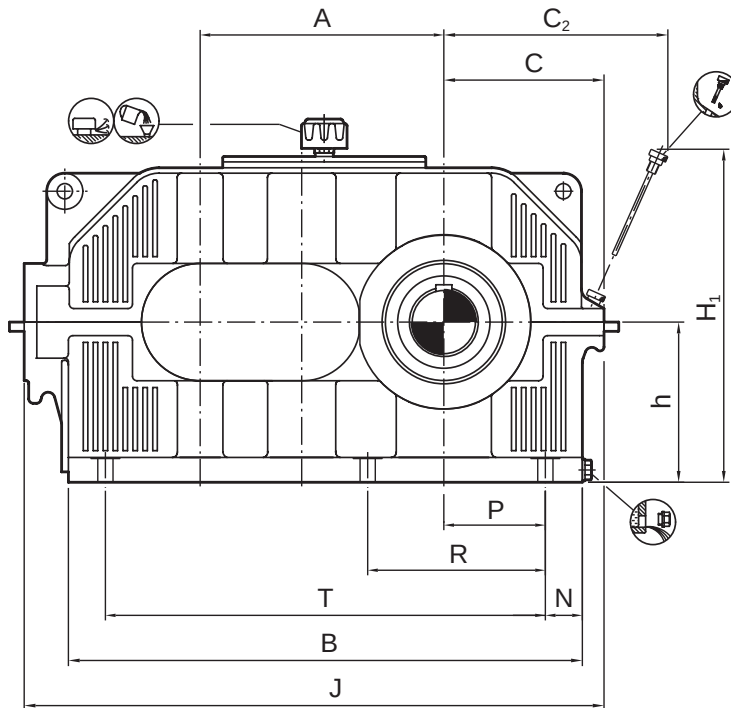
DIMENSIONS IN mm

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE S2H

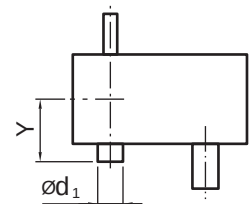
DOUBLE STAGE - SIZE 14 TO 18

E



Size	Input Shaft												Output Shaft			Backstop			
	i = 5.6 - 12.5			i = 14 - 18			i = 22.4												
	i = 5.6 - 12.5			i = 14 - 18															
	d	l	l ₁	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂	d ₁ ¹⁾	Y ¹⁾		
S2..14	25	100	55	20	100	55	20	100	55	140	185	210	48	95	125	95	190	58	2
S2..15	30	110	65	25	100	55	—	—	—	155	200	230	55	95	135	110	210	78	3
S2..16	35	110	65	30	110	65	20	100	55	155	200	270	60	130	145	135	220	110	4
S2..17	45	130	85	35	110	65	25	100	55	160	205	300	70	135	150	140	230	145	5
S2..18	50	130	85	40	130	85	—	—	—	180	225	300	80	160	170	150	250	200	8

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	J	N	O	P	R	S	T
S2..14	190	400	140	194	190	150	125	278	340	466	38	14	80	140	24	310
S2..15	215	460	155	215	228	170	140	306	370	526	38	14	95	170	24	355
S2..16	240	521	175	231	233	190	160	327	410	595	38	14	110	195	24	400
S2..17	270	580	190	257	250	210	180	378	450	664	43	18	115	210	32	440
S2..18	305	648	215	281	284	230	200	404	490	743	43	18	135	240	32	505



Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

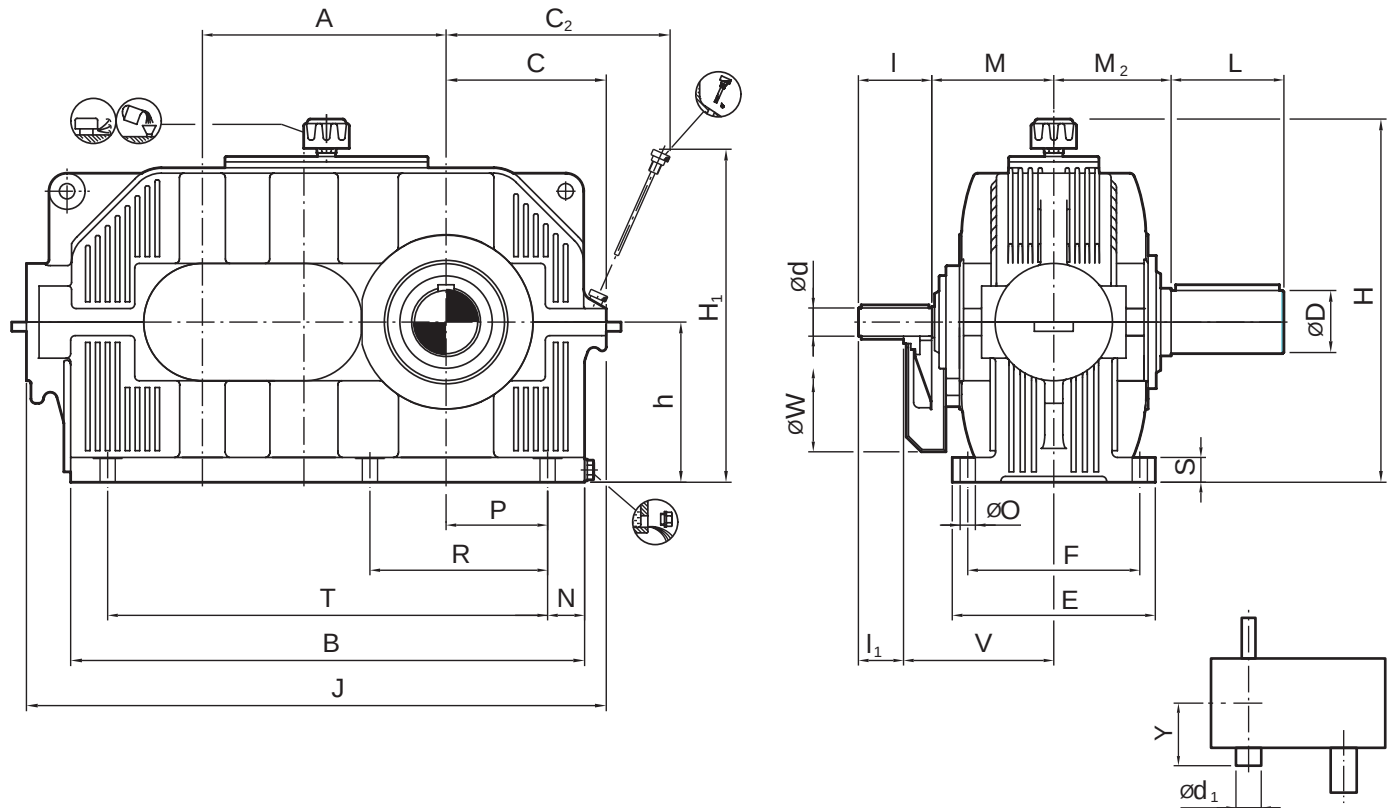
1) Max. dimensions; details acc. to order related documents

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

DIMENSIONS IN inch
HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE S2H
DOUBLE STAGE - SIZE 14 TO 18

E



Size	Input Shaft												Output Shaft			Backstop			
	i = 5.6 - 12.5			i = 14 - 18			i = 22.4												
	i = 5.6 - 12.5			i = 14 - 18															
	d	l	l ₁	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂	d ₁ ¹⁾	Y ¹⁾		
S2..14	0.98	3.94	2.17	0.79	3.94	2.17	0.79	3.94	2.17	5.51	7.28	8.27	1.89	3.74	4.92	3.74	7.48	128	0.5
S2..15	1.18	4.33	2.56	0.98	3.94	2.17				6.10	7.87	9.06	2.17	3.74	5.31	4.33	8.27	172	0.8
S2..16	1.38	4.33	2.56	1.18	4.33	2.56	0.79	3.94	2.17	6.10	7.87	10.63	2.36	5.12	5.71	5.31	8.66	243	1.1
S2..17	1.77	5.12	3.35	1.38	4.33	2.56	0.98	3.94	2.17	6.30	8.07	11.81	2.76	5.31	5.91	5.51	9.06	320	1.3
S2..18	1.97	5.12	3.35	1.57	5.12	3.35				7.09	8.86	11.81	3.15	6.30	6.69	5.91	9.84	441	2.1

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ²⁾	J	N	O	P	R	S	T
S2..14	7.48	15.75	5.51	7.64	7.48	5.91	4.92	10.94	13.39	18.35	1.50	0.55	3.15	5.51	0.94	12.20
S2..15	8.46	18.11	6.10	8.46	8.98	6.69	5.51	12.05	14.57	20.71	1.50	0.55	3.74	6.69	0.94	13.98
S2..16	9.45	20.51	6.89	9.09	9.17	7.48	6.30	12.87	16.14	23.43	1.50	0.55	4.33	7.68	0.94	15.75
S2..17	10.63	22.83	7.48	10.12	9.84	8.27	7.09	14.88	17.72	26.14	1.69	0.71	4.53	8.27	1.26	17.32
S2..18	12.01	25.51	8.46	11.06	11.18	9.06	7.87	15.91	19.29	29.25	1.69	0.71	5.31	9.45	1.26	19.88

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

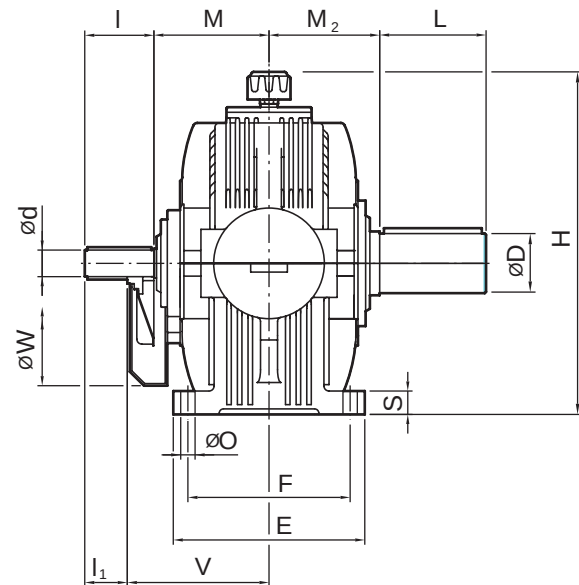
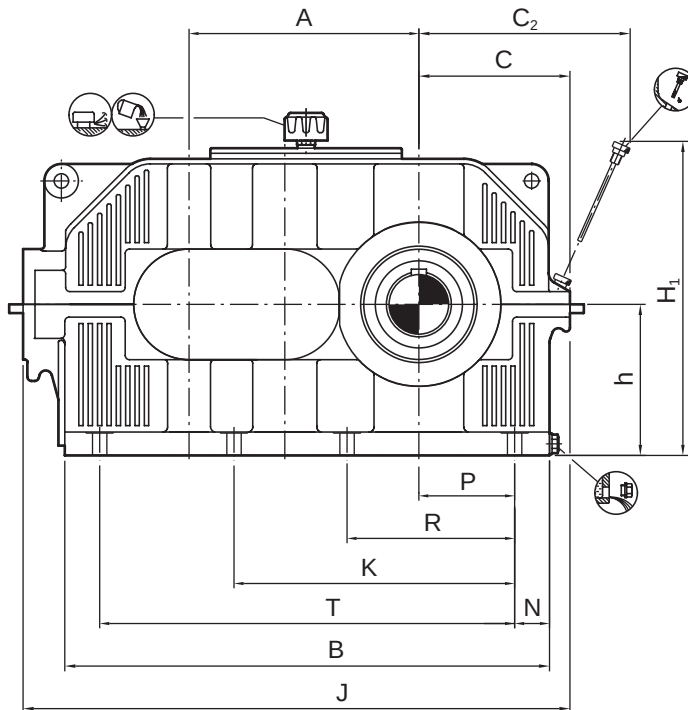
mm

DIMENSIONS IN mm

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

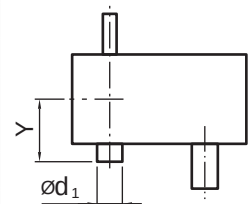
TYPE S2H

SINGLE STAGE - SIZE 19 TO 26



Size	Input Shaft												Output Shaft			Backstop			
	i = 5.6 - 12.5			i = 14 - 18			i = 22.4												
	i = 5.6 - 12.5			i = 14 - 18															
	d	l	l ₁	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂	d ₁ ¹⁾	Y ¹⁾		
S2..19	55	135	85	45	130	80	35	110	60	195	245	320	90	165	180	175	280	270	11
S2..20	60	155	105	50	130	80	40	130	80	205	255	360	100	200	200	190	295	360	14
S2..21	70	155	105	55	135	85	—	—	—	245	295	360	110	200	220	210	335	490	21
S2..22	75	155	105	60	155	105	55	135	85	260	310	430	120	210	230	210	345	675	29
S2..23	85	180	130	70	155	105	60	155	105	275	325	430	140	250	260	245	370	910	42
S2..24	95	180	130	80	180	130	—	—	—	340	390	450	160	290	295	290	445	1230	60
S2..25	105	220	170	90	180	130	70	155	105	350	400	550	170	300	305	290	455	1675	85
S2..26	115	220	170	95	180	130	80	180	130	350	400	550	190	350	345	310	465	2260	115

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	J	N	K	O	P	R	S	T
S2..19	340	716	240	315	303	250	225	455	540	825	53	—	23	145	255	36	555
S2..20	385	807	260	345	314	270	250	496	590	917	54	—	23	165	290	36	635
S2..21	430	898	290	394	385	310	280	572	650	1020	64	—	27	180	315	45	705
S2..22	480	1010	325	429	400	340	315	635	720	1140	75	—	27	200	355	45	785
S2..23	540	1139	355	481	450	380	355	705	800	1285	87	—	33	220	405	55	875
S2..24	605	1269	390	541	515	410	400	795	890	1420	92	—	33	245	450	55	975
S2..25	680	1411	440	591	535	460	450	865	990	1580	98	—	33	280	510	55	1105
S2..26	765	1586	490	659	600	510	500	954	1090	1775	108	940	39	315	575	65	1245



Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

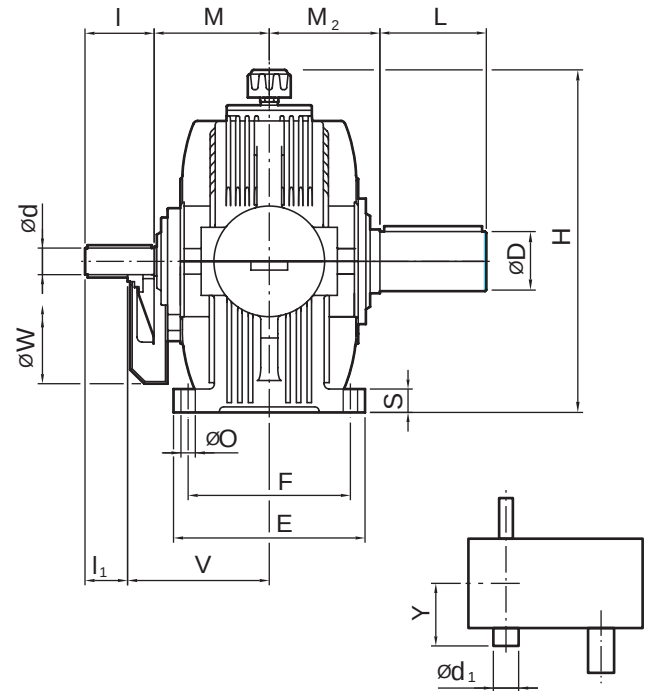
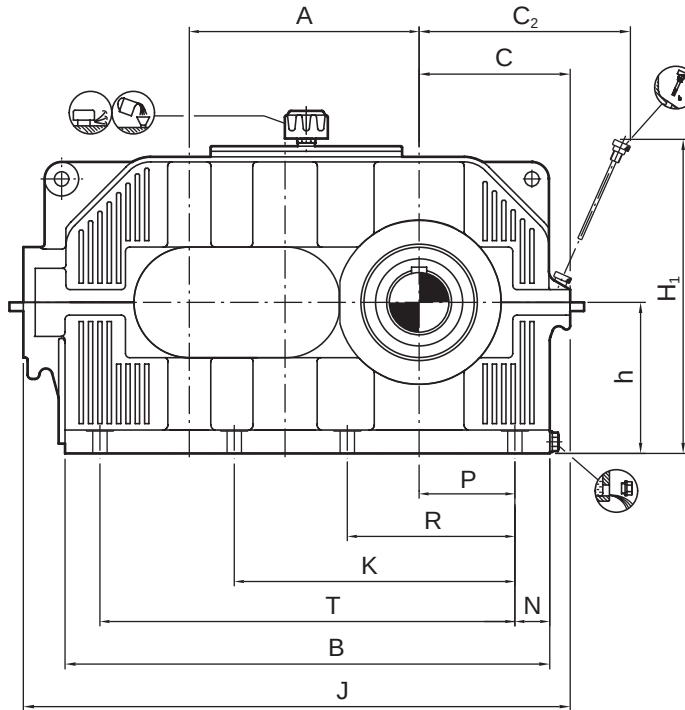
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE S2H

SINGLE STAGE - SIZE 19 TO 26



E

Size	Input Shaft												Output Shaft			Backstop			
	i = 5.6 - 12.5			i = 14 - 18			i = 22.4												
	i = 5.6 - 12.5			i = 14 - 18															
	d	l	l ₁	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂	d ₁ ¹⁾	Y ¹⁾		
S2..19	2.17	5.31	3.35	1.77	5.12	3.15	1.38	4.33	2.36	7.68	9.65	12.60	3.54	6.50	7.09	6.89	11.02	595	2.9
S2..20	2.36	6.10	4.13	1.97	5.12	3.15	1.57	5.12	3.15	8.07	10.04	14.17	3.94	7.87	7.87	7.48	11.61	794	3.7
S2..21	2.76	6.10	4.13	2.17	5.31	3.35				9.65	11.61	14.17	4.33	7.87	8.66	8.27	13.19	1080	5.5
S2..22	2.95	6.10	4.13	2.36	6.10	4.13	2.17	5.31	3.35	10.24	12.20	16.93	4.72	8.27	9.06	8.27	13.58	1488	7.7
S2..23	3.35	7.09	5.12	2.76	6.10	4.13	2.36	6.10	4.13	10.83	12.80	16.93	5.51	9.84	10.24	9.65	14.57	2006	11.1
S2..24	3.74	7.09	5.12	3.15	7.09	5.12				13.39	15.35	17.72	6.30	11.42	11.61	11.42	17.52	2712	15.9
S2..25	4.13	8.66	6.69	3.54	7.09	5.12	2.76	6.10	4.13	13.78	15.75	21.65	6.69	11.81	12.01	11.42	17.91	3693	22.5
S2..26	4.53	8.66	6.69	3.74	7.09	5.12	3.15	7.09	5.12	13.78	15.75	21.65	7.48	13.78	13.58	12.20	18.31	4982	30.4

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ²⁾	J	N	K	O	P	R	S	T
S2..19	13.39	28.19	9.45	12.40	11.93	9.84	8.86	17.91	21.26	32.48	2.09		0.91	5.71	10.04	1.42	21.85
S2..20	15.16	31.77	10.24	13.58	12.36	10.63	9.84	19.53	23.23	36.10	2.13		0.91	6.50	11.42	1.42	25.00
S2..21	16.93	35.35	11.42	15.51	15.16	12.20	11.02	22.52	25.59	40.16	2.52		1.06	7.09	12.40	1.77	27.76
S2..22	18.90	39.76	12.80	16.89	15.75	13.39	12.40	25.00	28.35	44.88	2.95		1.06	7.87	13.98	1.77	30.91
S2..23	21.26	44.84	13.98	18.94	17.72	14.96	13.98	27.76	31.50	50.59	3.43		1.30	8.66	15.94	2.17	34.45
S2..24	23.82	49.96	15.35	21.30	20.28	16.14	15.75	31.30	35.04	55.91	3.62		1.30	9.65	17.72	2.17	38.39
S2..25	26.77	55.55	17.32	23.27	21.06	18.11	17.72	34.06	38.98	62.20	3.86		1.30	11.02	20.08	2.17	43.50
S2..26	30.12	62.44	19.29	25.94	23.62	20.08	19.68	37.56	42.91	69.88	4.25	37.01	1.54	12.40	22.64	2.56	49.02

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

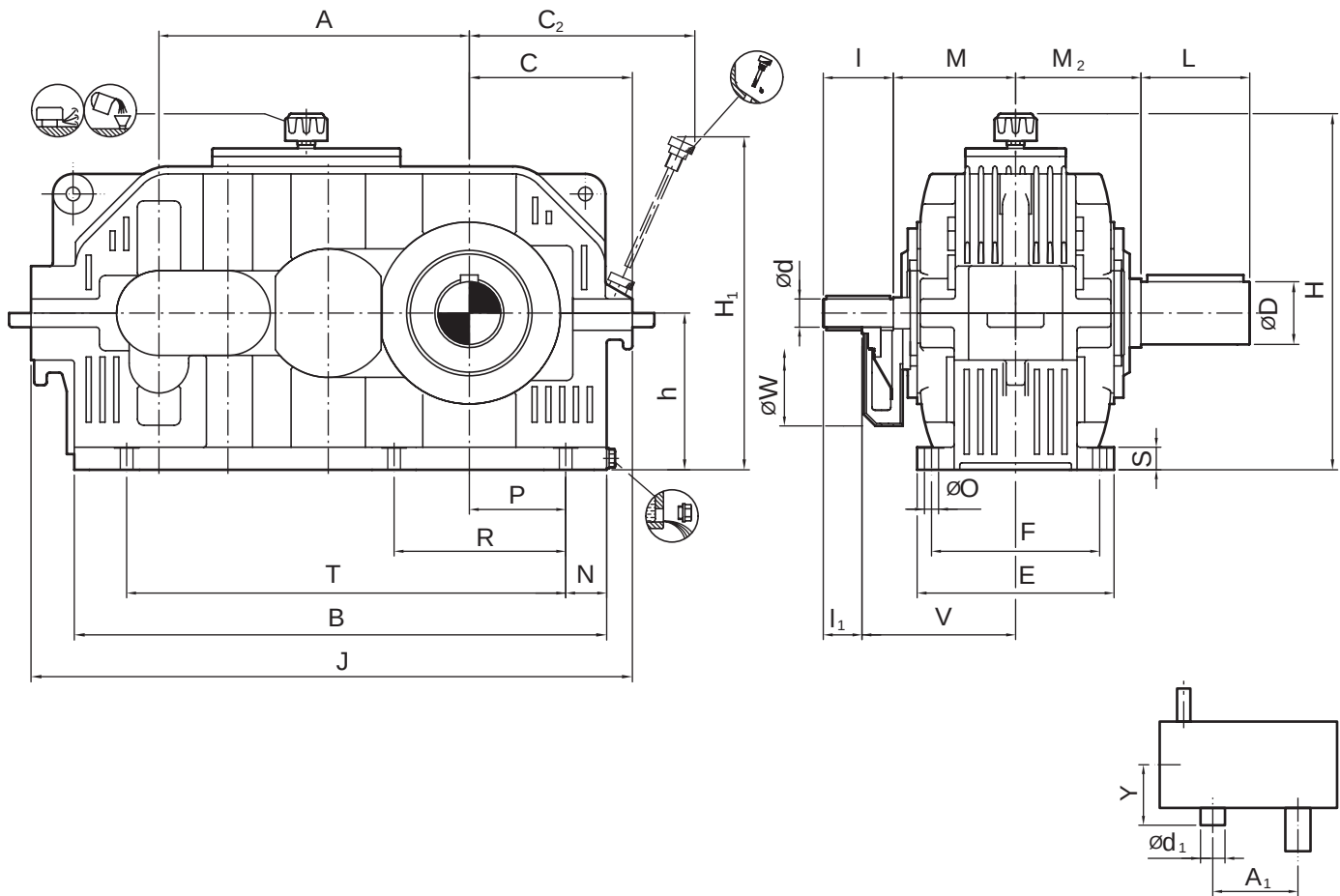
DIMENSIONS IN mm

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE S3H

TRIPLE STAGE - SIZE 16 TO 18

E



Size	Input Shaft												Output Shaft			Backstop				
	i = 20 - 50			i = 56 - 80																
	i = 25 - 63			i = 71 - 100																
	i = 25 - 71			i = 80 - 100									i = 112							
d	l	l ₁	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾			
S3..16	24	100	50	19	100	50	19	100	50	155	205	270	60	130	145	240	95	215	120	7
S3..17	28	100	50	24	100	50	19	100	50	160	210	270	70	135	150	270	95	215	160	8
S3..18	30	110	60	25	100	50	—	—	—	180	230	300	80	160	170	305	140	265	215	10

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	J	N	O	P	R	S	T
S3..16	311	537	175	231	233	190	160	327	410	591	38	14	110	195	24	450
S3..17	350	592	190	257	250	210	180	378	450	676	43	18	115	210	32	495
S3..18	395	671	215	281	284	230	200	404	490	766	43	18	135	240	32	565

Modification of dimensions reserved.

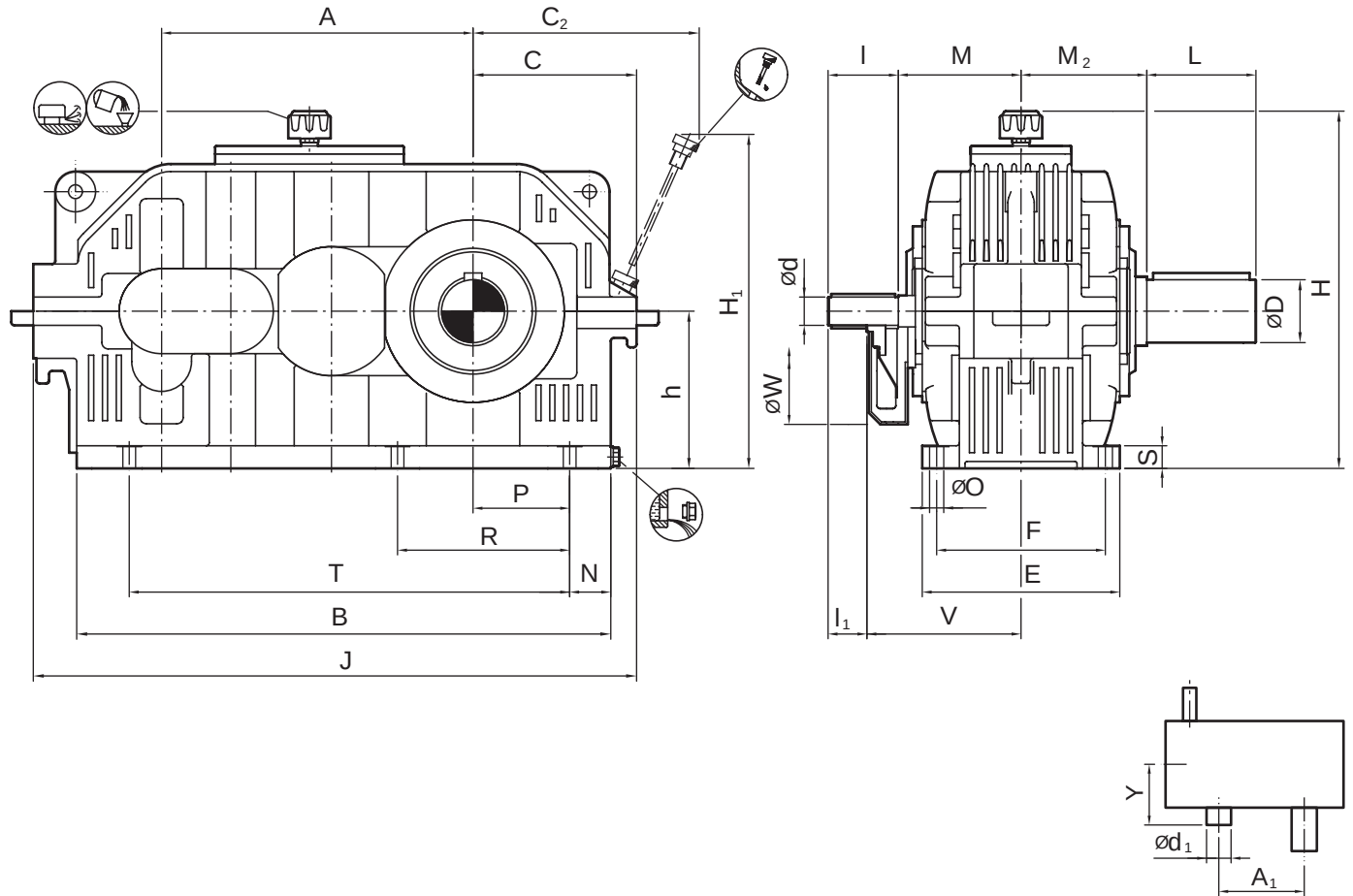
Shaft ends with keys according to DIN 6885, part 1, Shape A.

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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



Size	Input Shaft												Output Shaft			Backstop				
	i = 20 - 50			i = 56 - 80			i = 112													
	i = 25 - 63			i = 71 - 100																
	i = 25 - 71			i = 80 - 100																
d	l	l ₁	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾			
S3..16	0.94	3.94	1.97	0.75	3.94	1.97	0.75	3.94	1.97	6.10	8.07	10.63	2.36	5.12	5.71	9.45	3.74	8.46	265	1.8
S3..17	1.10	3.94	1.97	0.94	3.94	1.97	0.75	3.94	1.97	6.30	8.27	10.63	2.76	5.31	5.91	10.63	3.74	8.46	353	2.1
S3..18	1.18	4.33	2.36	0.98	3.94	1.97				7.09	9.06	11.81	3.15	6.30	6.69	12.01	5.51	10.43	474	2.6

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ²⁾	J	N	O	P	R	S	T
S3..16	12.24	21.14	6.89	9.09	9.17	7.48	6.30	12.87	16.14	23.31	1.50	0.55	4.33	7.68	0.94	17.72
S3..17	13.78	23.31	7.48	10.12	9.84	8.27	7.09	14.88	17.72	26.61	1.69	0.71	4.53	8.27	1.26	19.49
S3..18	15.55	26.42	8.46	11.06	11.18	9.06	7.87	15.91	19.29	30.16	1.69	0.71	5.31	9.45	1.26	22.24

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

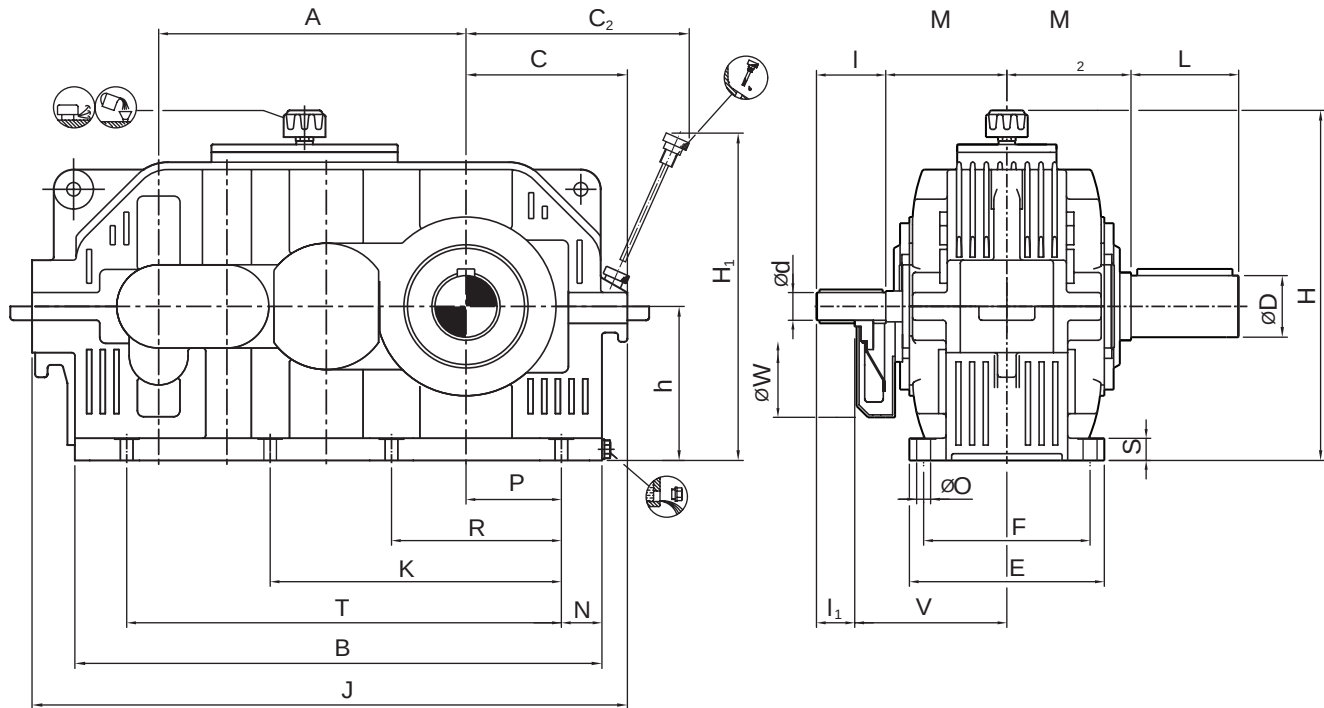
DIMENSIONS IN mm

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE S3H

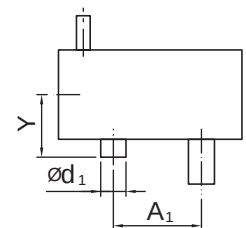
TRIPLE STAGE - SIZE 19 TO 26

E



Size	Input Shaft												Output Shaft			Backstop				
	i = 20 - 50			i = 56 - 80			i = 112													
	i = 25 - 63			i = 71 - 100																
	i = 25 - 71			i = 80 - 100																
d	l	l ₁	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾			
S3..19	35	110	60	30	110	60	25	100	50	190	240	320	90	165	180	340	150	265	295	14
S3..20	45	130	80	35	110	60	25	100	50	195	245	360	100	200	200	385	150	265	405	22
S3..21	50	130	80	40	130	80	—	—	—	240	290	360	110	200	220	430	190	340	540	28
S3..22	55	135	85	45	130	80	35	110	60	250	300	430	120	210	230	480	190	340	720	39
S3..23	60	155	105	50	130	80	40	130	80	270	320	430	140	250	260	540	190	340	970	56
S3..24	70	155	105	55	135	85	—	—	—	325	375	450	160	290	295	605	245	440	1300	80
S3..25	75	155	105	60	155	105	50	130	80	335	385	450	170	300	305	680	245	440	1770	115
S3..26	85	180	130	70	155	105	70	155	105	350	400	450	190	350	345	765	245	440	2350	165

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	J	N	K	O	P	R	S	T
S3..19	440	751	240	315	303	250	225	455	540	860	53	—	23	145	255	36	615
S3..20	495	849	260	345	314	270	250	496	590	959	54	—	23	165	290	36	705
S3..21	555	946	290	394	385	310	280	572	650	1068	64	—	27	180	315	45	780
S3..22	620	1060	325	429	400	340	315	635	720	1190	75	—	27	200	355	45	880
S3..23	700	1181	355	481	450	380	355	705	800	1327	87	655	33	220	405	55	985
S3..24	785	1324	390	541	515	410	400	795	890	1475	92	740	33	245	450	55	1110
S3..25	880	1496	440	591	535	460	450	865	990	1655	98	840	33	280	510	55	1245
S3..26	990	1686	490	659	600	510	500	954	1090	1870	108	940	39	315	575	65	1400



Modification of dimensions reserved.

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

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

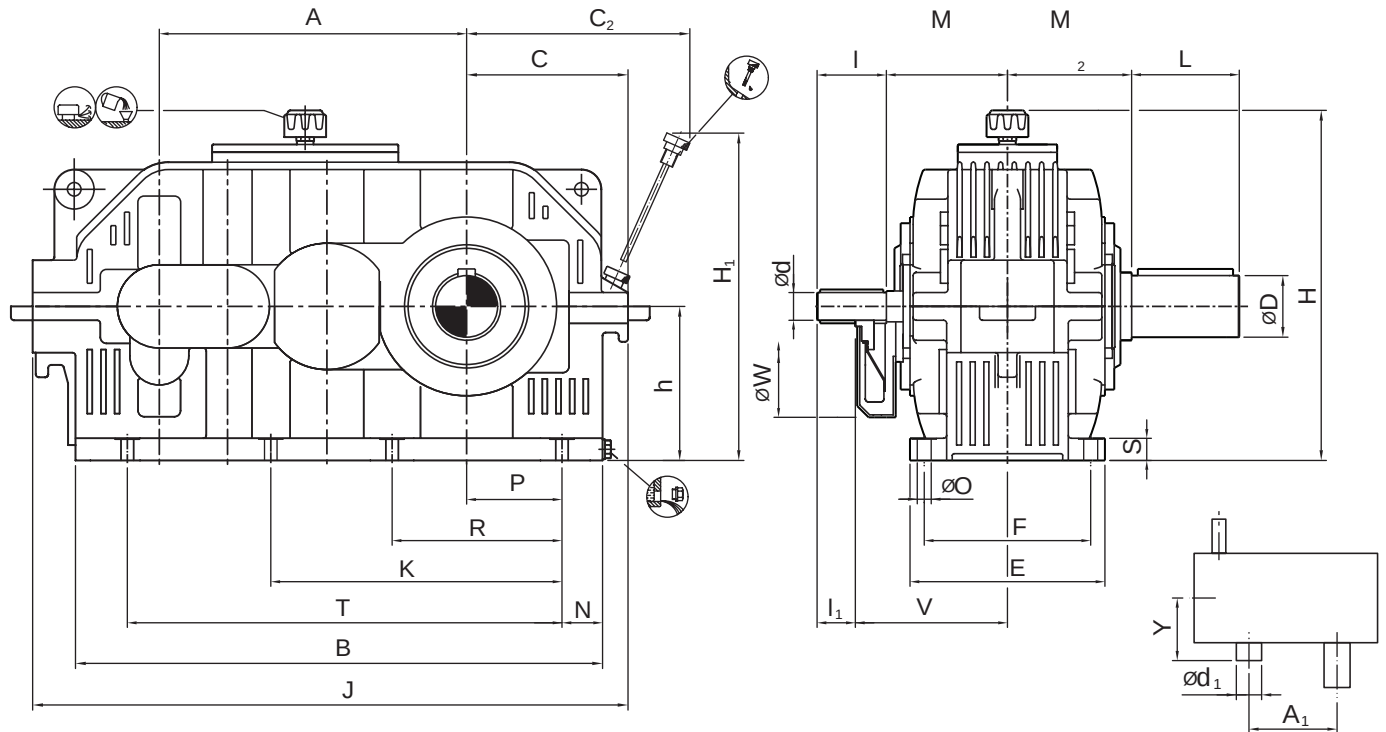
Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

DIMENSIONS IN inch
HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE S3H
TRIPLE STAGE - SIZE 19 TO 26



Size	Input Shaft												Output Shaft			Backstop				
	i = 20 - 50			i = 56 - 80			i = 112													
	i = 25 - 63			i = 71 - 100																
	i = 25 - 71			i = 80 - 100																
	d	l	l ₁	d	l	l ₁	d	l	l ₁	M	V	W	D	L	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
S3..19	1.38	4.33	2.36	1.18	4.33	2.36	0.98	3.94	1.97	7.48	9.45	12.60	3.54	6.50	7.09	13.39	5.91	10.43	650	3.70
S3..20	1.77	5.12	3.15	1.38	4.33	2.36	0.98	3.94	1.97	7.68	9.65	14.17	3.94	7.87	7.87	15.16	5.91	10.43	893	5.81
S3..21	1.97	5.12	3.15	1.57	5.12	3.15				9.45	11.42	14.17	4.33	7.87	8.66	16.93	7.48	13.39	1190	7.40
S3..22	2.17	5.31	3.35	1.77	5.12	3.15	1.38	4.33	2.36	9.84	11.81	16.93	4.72	8.27	9.06	18.90	7.48	13.39	1587	10.30
S3..23	2.36	6.10	4.13	1.97	5.12	3.15	1.57	5.12	3.15	10.63	12.60	16.93	5.51	9.84	10.24	21.26	7.48	13.39	2138	14.79
S3..24	2.76	6.10	4.13	2.17	5.31	3.35				12.80	14.76	17.72	6.30	11.42	11.61	23.82	9.65	17.32	2866	21.13
S3..25	2.95	6.10	4.13	2.36	6.10	4.13	1.97	5.12	3.15	13.19	15.16	17.72	6.69	11.81	12.01	26.77	9.65	17.32	3902	30.38
S3..26	3.35	7.09	5.12	2.76	6.10	4.13	2.76	6.10	4.13	13.78	15.75	17.72	7.48	13.78	13.58	30.12	9.65	17.32	5181	43.59

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	J	N	K	O	P	R	S	T
S3..19	17.32	29.57	9.45	12.40	11.93	9.84	8.86	17.91	21.26	33.86		2.09	0.91	5.71	10.04	1.42	24.21
S3..20	19.49	33.43	10.24	13.58	12.36	10.63	9.84	19.53	23.23	37.76		2.13	0.91	6.50	11.42	1.42	27.76
S3..21	21.85	37.24	11.42	15.51	15.16	12.20	11.02	22.52	25.59	42.05		2.52	1.06	7.09	12.40	1.77	30.71
S3..22	24.41	41.73	12.80	16.89	15.75	13.39	12.40	25.00	28.35	46.85		2.95	1.06	7.87	13.98	1.77	34.65
S3..23	27.56	46.50	13.98	18.94	17.72	14.96	13.98	27.76	31.50	52.24	25.79	3.43	1.30	8.66	15.94	2.17	38.78
S3..24	30.91	52.13	15.35	21.30	20.28	16.14	15.75	31.30	35.04	58.07	29.13	3.62	1.30	9.65	17.72	2.17	43.70
S3..25	34.65	58.90	17.32	23.27	21.06	18.11	17.72	34.06	38.98	65.16	33.07	3.86	1.30	11.02	20.08	2.17	49.02
S3..26	38.98	66.38	19.29	25.94	23.62	20.08	19.68	37.56	42.91	73.62	37.01	4.25	1.54	12.40	22.64	2.56	55.12

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

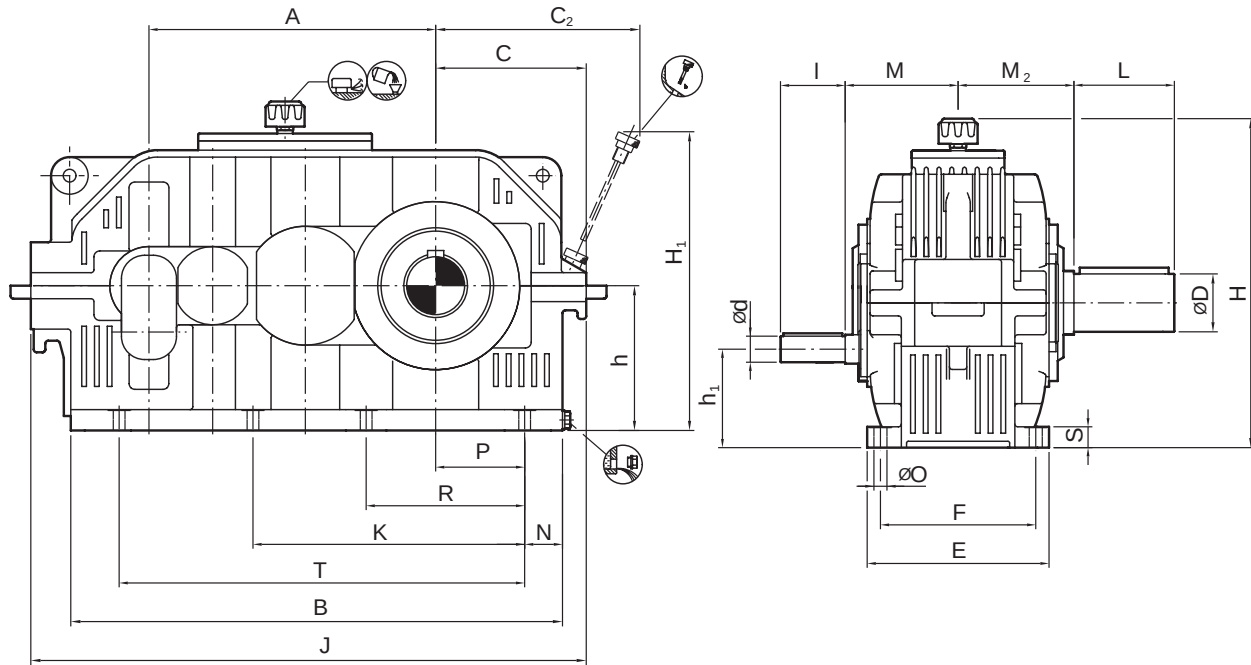
mm

DIMENSIONS IN mm

HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE S4H

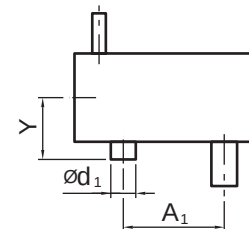
QUADRUPLE STAGE - SIZE 18 TO 26



Size	Input Shaft						Output Shaft			Backstop				
	i = 90 - 225		i = 250 - 450											
	i = 125 - 355		i = 400 - 560											
	i = 125 - 400		i = 450 - 560											
d	l	d	l	M	h ₁	D	L	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾			
S4..18	20	50	19	50	170	137	80	160	170	395	95	255	215	13
S4..19	20	50	19	50	180	154	90	165	180	440	95	255	300	18
S4..20	20	50	20	50	190	170	100	200	200	495	95	255	405	22
S4..21	30	80	25	60	220	190	110	200	220	555	135	310	540	28
S4..22	35	80	25	60	230	215	120	210	230	620	135	310	720	39
S4..23	40	110	35	80	260	245	140	250	260	700	140	310	970	56
S4..24	40	110	40	110	295	275	160	290	295	785	175	415	1300	80
S4..25	45	110	45	110	305	310	170	300	305	880	175	415	1770	115
S4..26	50	110	50	110	345	340	190	350	345	990	190	415	2350	165

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ²⁾	N	O	P	R	S	T
S4..18	395	671	215	281	284	230	200	404	490	43	18	135	240	32	565

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ²⁾	J	K	N	O	P	R	S	T
S4..19	440	751	240	315	303	250	225	455	540	860	—	53	23	145	255	36	615
S4..20	495	849	260	345	314	270	250	496	590	959	—	54	23	165	290	36	705
S4..21	555	946	290	394	385	310	280	572	650	1068	—	64	27	180	315	45	780
S4..22	620	1060	325	429	400	340	315	635	720	1190	—	75	27	200	355	45	880
S4..23	700	1181	355	481	450	380	355	705	800	1327	655	87	33	220	405	55	985
S4..24	785	1324	390	541	515	410	400	795	890	1475	740	92	33	245	450	55	1110
S4..25	880	1496	440	591	535	460	450	865	990	1655	840	98	33	280	510	55	1245
S4..26	990	1686	490	659	600	510	500	954	1090	1870	940	108	39	315	575	65	1400



Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

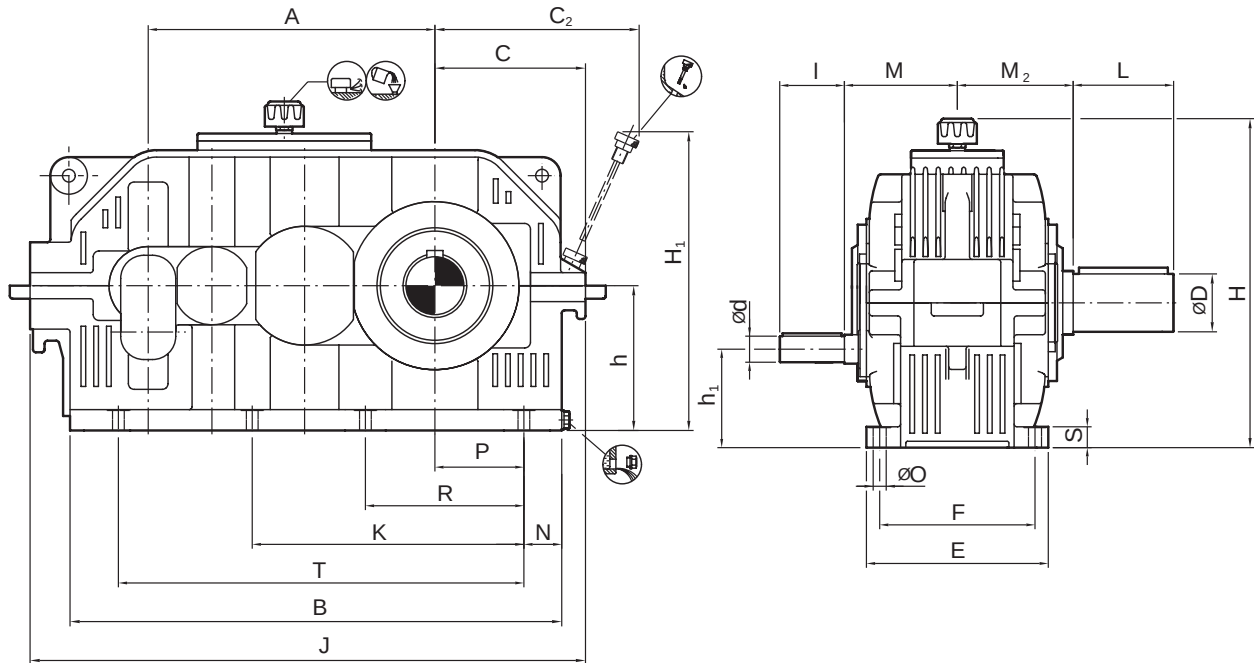
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

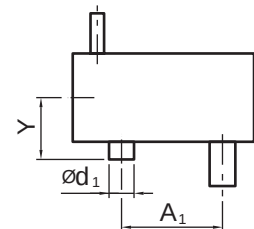
HORIZONTAL MOUNTING - HELICAL GEAR UNIT

TYPE S4H

QUADRUPLE STAGE - SIZE 18 TO 26



Size	Input Shaft						Output Shaft			Backstop				
	i = 90 - 225		i = 250 - 450											
	i = 125 - 355		i = 400 - 560											
	i = 125 - 400		i = 450 - 560											
d	l	d	l	M	h ₁	D	L	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾			
S4..18	0.79	1.97	0.75	1.97	6.69	5.39	3.15	6.30	6.69	15.55	3.74	10.04	474	3.4
S4..19	0.79	1.97	0.75	1.97	7.09	6.06	3.54	6.50	7.09	17.32	3.74	10.04	661	4.8
S4..20	0.79	1.97	0.79	1.97	7.48	6.69	3.94	7.87	7.87	19.49	3.74	10.04	893	5.8
S4..21	1.18	3.15	0.98	2.36	8.66	7.48	4.33	7.87	8.66	21.85	5.31	12.20	1190	7.4
S4..22	1.38	3.15	0.98	2.36	9.06	8.46	4.72	8.27	9.06	24.41	5.31	12.20	1587	10.3
S4..23	1.57	4.33	1.38	3.15	10.24	9.65	5.51	9.84	10.24	27.56	5.51	12.20	2138	14.8
S4..24	1.57	4.33	1.57	4.33	11.61	10.83	6.30	11.42	11.61	30.91	6.89	16.34	2866	21.1
S4..25	1.77	4.33	1.77	4.33	12.01	12.20	6.69	11.81	12.01	34.65	6.89	16.34	3902	30.4
S4..26	1.97	4.33	1.97	4.33	13.58	13.39	7.48	13.78	13.58	38.98	7.48	16.34	5181	43.6



Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	J	K	N	O	P	R	S	T
S4..18	15.55	26.42	8.46	11.06	11.18	9.06	7.87	15.91	19.29	30.16	-	1.69	0.71	5.31	9.45	1.26	22.24
S4..19	17.32	29.57	9.45	12.40	11.93	9.84	8.86	17.91	21.26	33.86	-	2.09	0.91	5.71	10.04	1.42	24.21
S4..20	19.49	33.43	10.24	13.58	12.36	10.63	9.84	19.53	23.23	37.76	-	2.13	0.91	6.50	11.42	1.42	27.76
S4..21	21.85	37.24	11.42	15.51	15.16	12.20	11.02	22.52	25.59	42.05	-	2.52	1.06	7.09	12.40	1.77	30.71
S4..22	24.41	41.73	12.80	16.89	15.75	13.39	12.40	25.00	28.35	46.85	-	2.95	1.06	7.87	13.98	1.77	34.65
S4..23	27.56	46.50	13.98	18.94	17.72	14.96	13.98	27.76	31.50	52.24	25.79	3.43	1.30	8.66	15.94	2.17	38.78
S4..24	30.91	52.13	15.35	21.30	20.28	16.14	15.75	31.30	35.04	58.07	29.13	3.62	1.30	9.65	17.72	2.17	43.70
S4..25	34.65	58.90	17.32	23.27	21.06	18.11	17.72	34.06	38.98	65.16	33.07	3.86	1.30	11.02	20.08	2.17	49.02
S4..26	38.98	66.38	19.29	25.94	23.62	20.08	19.68	37.56	42.91	73.62	37.01	4.25	1.54	12.40	22.64	2.56	55.12

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

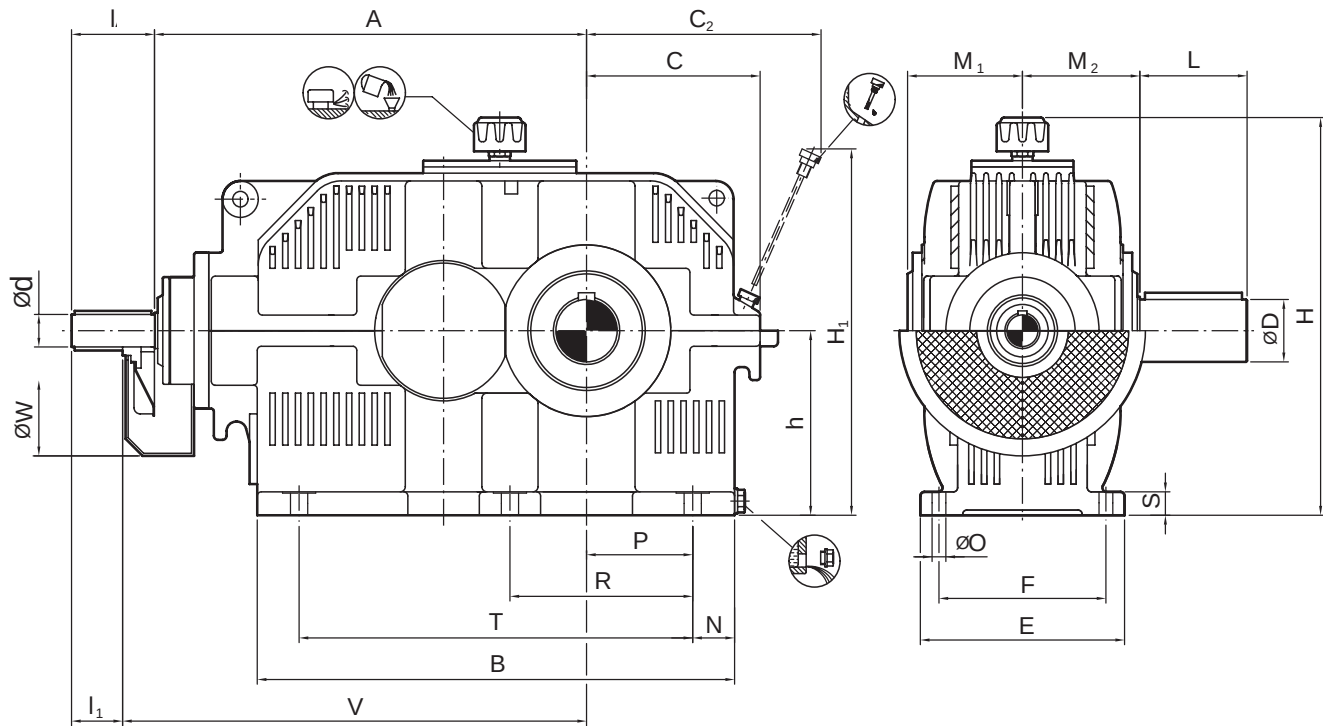
DIMENSIONS IN mm

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

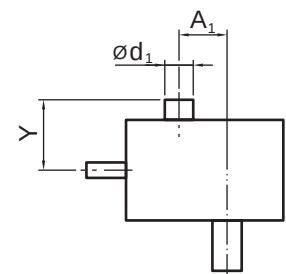
TYPE K2H

DOUBLE STAGE - SIZE 11 TO 18

E



Size	Input Shaft								Output Shaft				Backstop				
	i = 5 - 12.5			i = 14 - 18													
	i = 5.6 - 14			i = 16 - 20													
	i = 6.3 - 16			i = 18 - 22.4													
d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾			
K2..11	19	90	40	19	90	40	325	210	32	55	94	105	80	95	180	29	1.5
K2..13	24	100	50	24	100	50	390	270	45	95	106	115	100	105	190	52.5	2.5
K2..15	32	110	60	28	100	50	465	300	55	95	127	135	125	140	255	95	4
K2..17	42	130	80	38	110	60	570	360	70	135	141	150	160	175	255	174	7
K2..18	48	130	80	42	130	80	635	360	80	160	158	170	180	190	305	230	9



Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ²⁾	N	O	P	R	S	T
K2..11	275	268	115	171	180	150	100	248	290	46	14	50	95	24	215
K2..13	340	349	135	195	190	150	125	295	340	47	14	65	120	24	270
K2..15	415	432	165	231	228	170	160	352	410	43	14	95	170	24	355
K2..17	520	536	205	282	250	210	200	432	480	53	18	115	210	32	440
K2..18	585	600	220	311	284	230	225	475	525	53	18	135	240	32	505

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

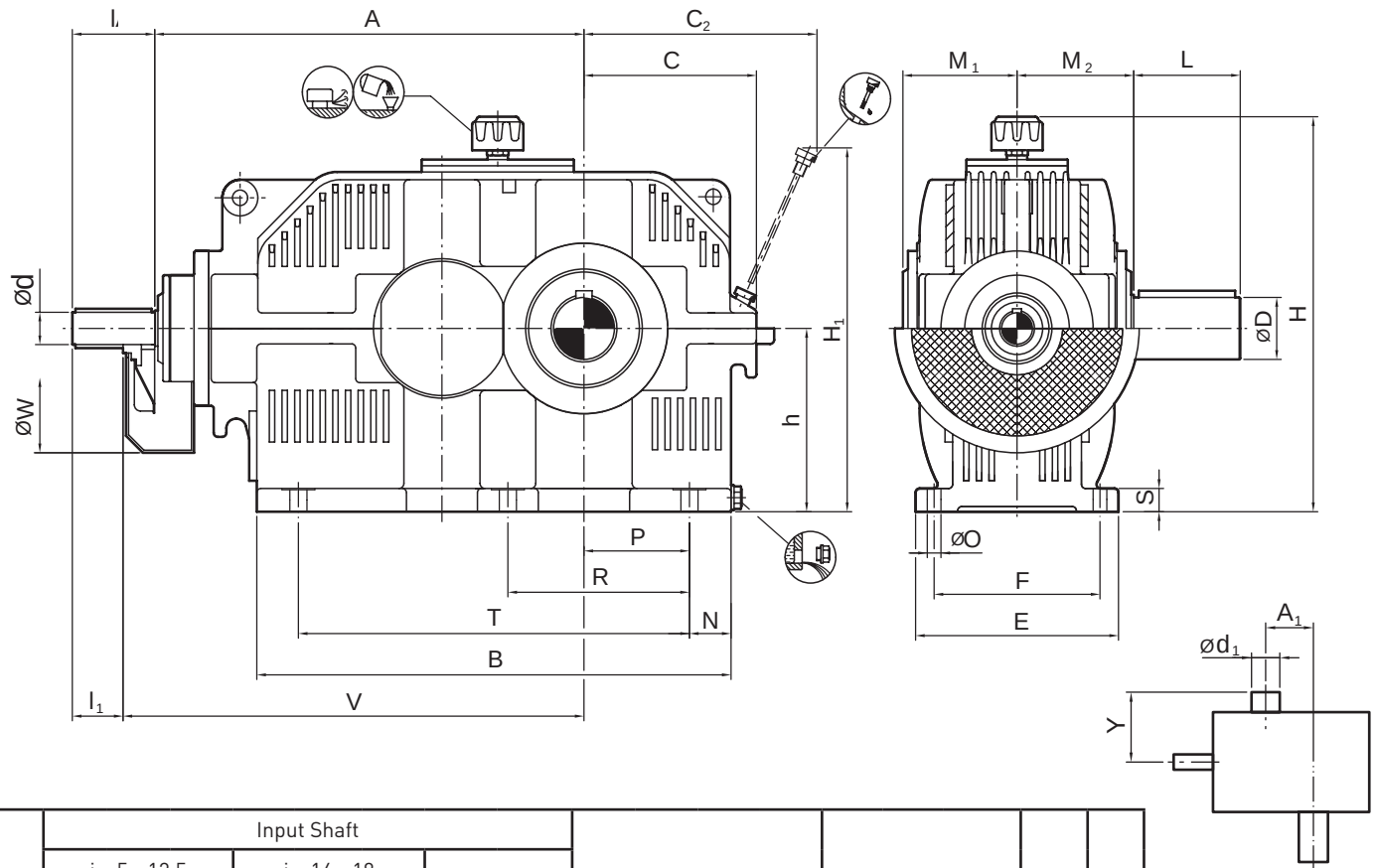
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE K2H

DOUBLE STAGE - SIZE 11 TO 18



Size	Input Shaft								Output Shaft				Backstop				
	i = 5 - 12.5			i = 14 - 18													
	i = 5.6 - 14			i = 16 - 20													
	i = 6.3 - 16			i = 18 - 22.4													
d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾			
K2..11	0.75	3.54	1.57	0.75	3.54	1.57	12.80	8.27	1.26	2.17	3.70	4.13	3.15	3.74	7.09	64	0.4
K2..13	0.94	3.94	1.97	0.94	3.94	1.97	15.35	10.63	1.77	3.74	4.17	4.53	3.94	4.13	7.48	116	0.7
K2..15	1.26	4.33	2.36	1.10	3.94	1.97	18.31	11.81	2.17	3.74	5.00	5.31	4.92	5.51	10.04	209	1.3
K2..17	1.65	5.12	3.15	1.50	4.33	2.36	22.44	14.17	2.76	5.31	5.55	5.91	6.30	6.89	10.04	384	2.2
K2..18	1.89	5.12	3.15	1.65	5.12	3.15	25.00	14.17	3.15	6.30	6.22	6.69	7.09	7.48	12.01	507	3.7

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ²⁾	N	O	P	R	S	T
K2..11	10.83	10.55	4.53	6.73	7.09	5.91	3.94	9.76	11.42	1.81	0.55	1.97	3.74	0.94	7.28
K2..13	13.39	13.74	5.31	7.68	7.48	5.91	4.92	11.61	13.39	1.85	0.55	2.56	4.72	0.94	10.63
K2..15	16.34	17.01	6.50	9.09	8.98	6.69	6.30	13.86	16.14	1.69	0.55	3.74	6.69	0.94	13.98
K2..17	20.47	21.10	8.07	11.10	9.84	8.27	7.87	17.01	18.90	2.09	0.71	4.53	8.27	1.26	17.32
K2..18	23.03	23.62	8.66	12.24	11.18	9.06	8.86	18.70	20.67	2.09	0.71	5.31	9.45	1.26	19.88

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

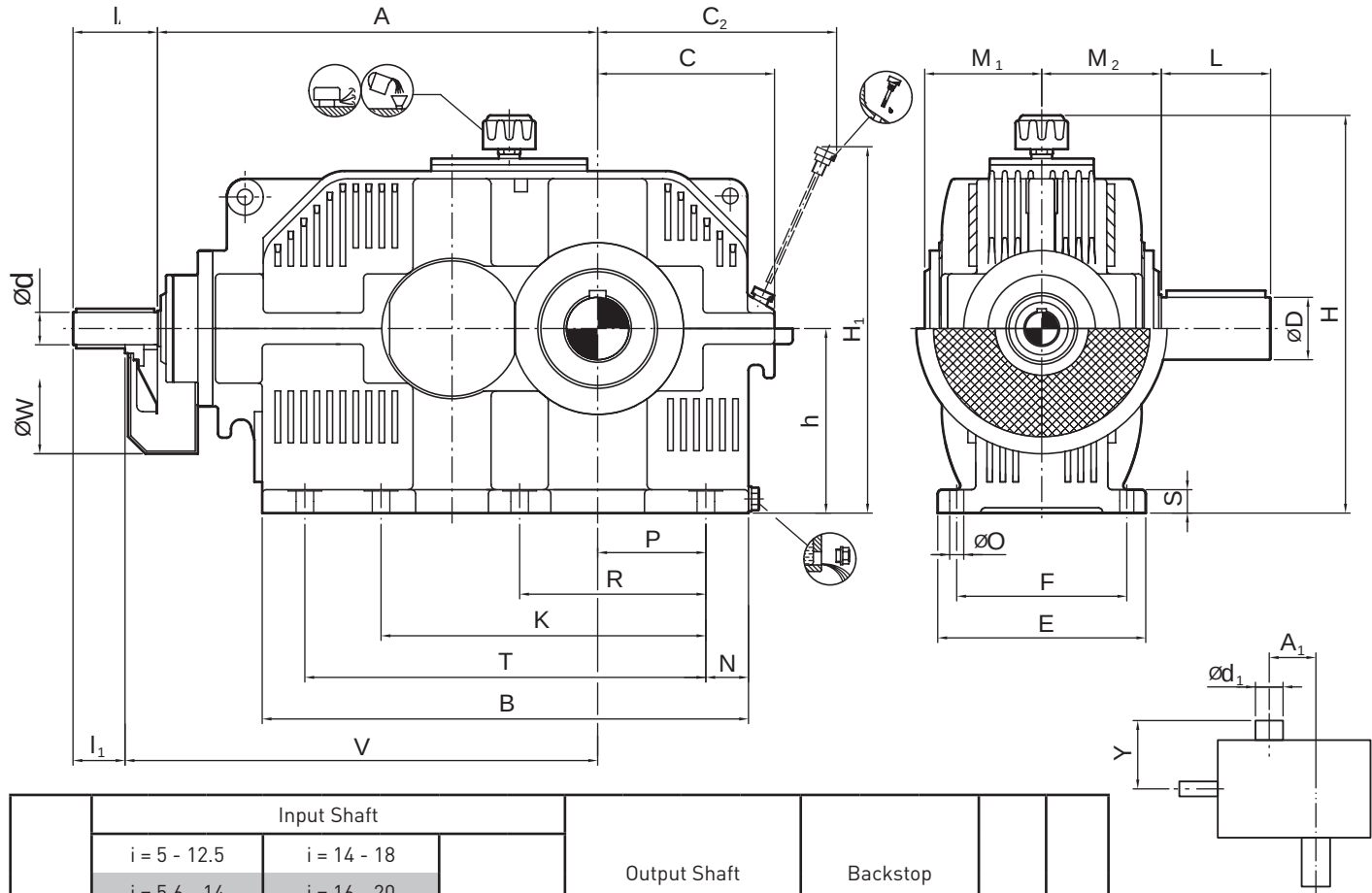
mm

DIMENSIONS IN mm

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE K2H

DOUBLE STAGE - SIZE 20 TO 26



Size	Input Shaft								Output Shaft				Backstop				
	i = 5 - 12.5			i = 14 - 18													
	i = 5.6 - 14			i = 16 - 20													
	i = 6.3 - 16			i = 18 - 22.4													
	d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
K2..20	58	135	85	52	130	80	770	460	100	200	176	200	225	210	305	415	24
K2..21	65	155	105	65	155	105	840	530	110	200	210	220	250	245	390	557	35
K2..22	70	155	105	70	155	105	925	550	120	210	220	230	280	290	390	756	48
K2..23	85	180	130	80	180	130	1025	550	140	250	234	260	315	290	390	1020	60
K2..24	90	180	130	90	180	130	1135	650	160	290	283	295	355	310	470	1370	110
K2..25	100	220	170	100	220	170	1265	700	170	300	293	305	400	310	470	1855	125
K2..26	110	220	170	110	220	170	1415	700	190	350	306	345	450	400	470	2500	160

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	K	N	O	P	R	S	T
K2..20	720	755	275	387	314	270	280	588	620	—	69	23	165	290	36	635
K2..21	790	843	305	435	385	310	315	664	685	—	79	27	180	315	45	705
K2..22	875	935	340	474	400	340	355	741	760	—	90	27	200	355	45	785
K2..23	975	1054	375	537	450	380	400	831	845	—	107	33	220	405	55	875
K2..24	1085	1169	425	598	515	410	450	908	940	—	122	33	245	450	55	975
K2..25	1215	1311	475	670	535	460	500	1013	1040	—	133	33	280	510	55	1105
K2..26	1365	1476	535	753	600	510	560	1137	1150	940	148	39	315	575	65	1245

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

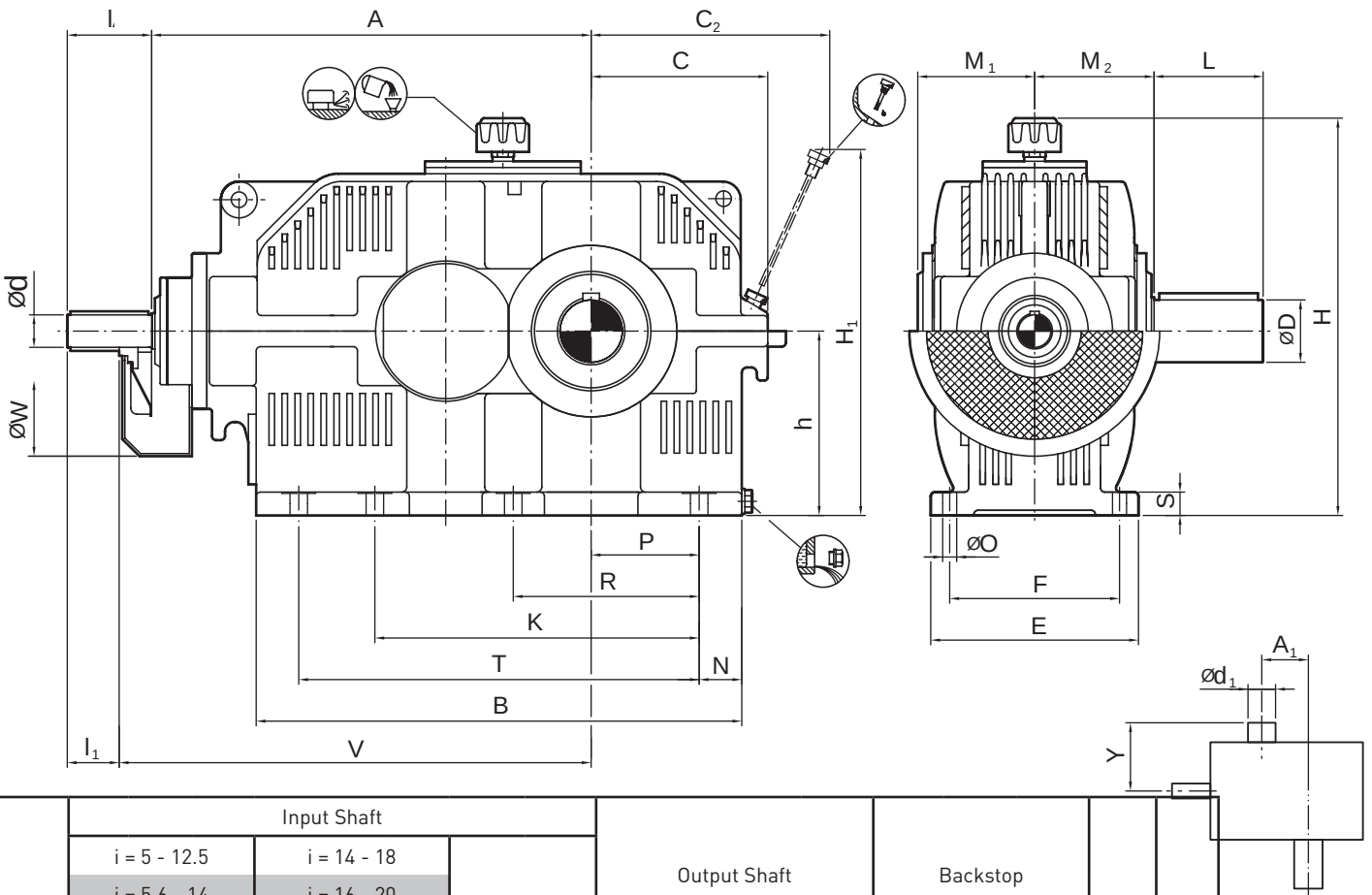
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE K2H

DOUBLE STAGE - SIZE 20 TO 26



Size	Input Shaft								Output Shaft				Backstop				
	i = 5 - 12.5			i = 14 - 18													
	i = 5.6 - 14			i = 16 - 20													
	i = 6.3 - 16			i = 18 - 22.4													
	d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
K2..20	2.28	5.31	3.35	2.05	5.12	3.15	30.31	18.11	3.94	7.87	6.93	7.87	8.86	8.27	12.01	915	6.3
K2..21	2.56	6.10	4.13	2.56	6.10	4.13	33.07	20.87	4.33	7.87	8.27	8.66	9.84	9.65	15.35	1228	9.2
K2..22	2.76	6.10	4.13	2.76	6.10	4.13	36.42	21.65	4.72	8.27	8.66	9.06	11.02	11.42	15.35	1667	12.7
K2..23	3.35	7.09	5.12	3.15	7.09	5.12	40.35	21.65	5.51	9.84	9.21	10.24	12.40	11.42	15.35	2249	15.9
K2..24	3.54	7.09	5.12	3.54	7.09	5.12	44.68	25.59	6.30	11.42	11.14	11.61	13.98	12.20	18.50	3020	29.1
K2..25	3.94	8.66	6.69	3.94	8.66	6.69	49.80	27.56	6.69	11.81	11.54	12.01	15.75	12.20	18.50	4090	33.0
K2..26	4.33	8.66	6.69	4.33	8.66	6.69	55.71	27.56	7.48	13.78	12.05	13.58	17.72	15.75	18.50	5512	42.3

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	K	N	O	P	R	S	T
K2..20	28.35	29.72	10.83	15.24	12.36	10.63	11.02	23.15	24.41	-	2.72	0.91	6.50	11.42	1.42	25.00
K2..21	31.10	33.19	12.01	17.13	15.16	12.20	12.40	26.14	26.97	-	3.11	1.06	7.09	12.40	1.77	27.76
K2..22	34.45	36.81	13.39	18.66	15.75	13.39	13.98	29.17	29.92	-	3.54	1.06	7.87	13.98	1.77	30.91
K2..23	38.39	41.50	14.76	21.14	17.72	14.96	15.75	32.72	33.27	-	4.21	1.30	8.66	15.94	2.17	34.45
K2..24	42.72	46.02	16.73	23.54	20.28	16.14	17.72	35.75	37.01	-	4.80	1.30	9.65	17.72	2.17	38.39
K2..25	47.83	51.61	18.70	26.38	21.06	18.11	19.68	39.88	40.94	-	5.24	1.30	11.02	20.08	2.17	43.50
K2..26	53.74	58.11	21.06	29.65	23.62	20.08	22.05	44.76	45.28	37.01	5.83	1.54	12.40	22.64	2.56	49.02

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

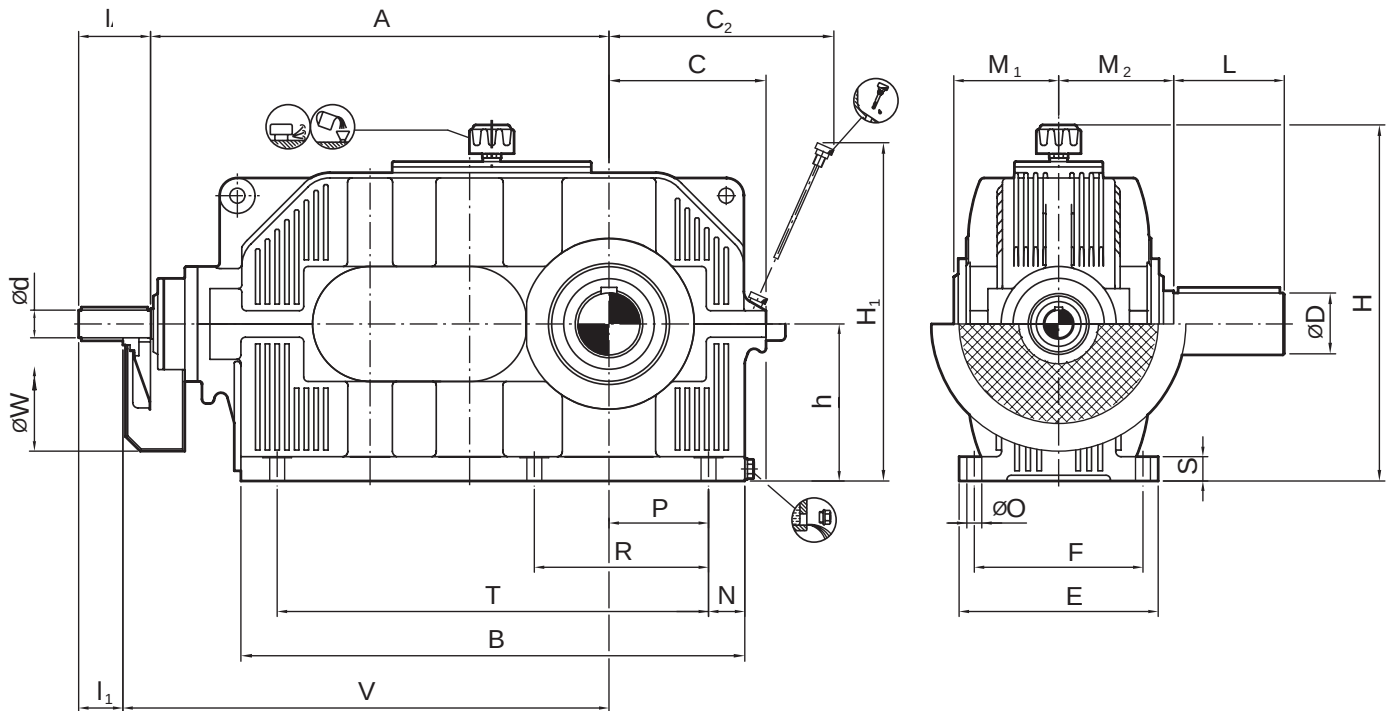
DIMENSIONS IN mm

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

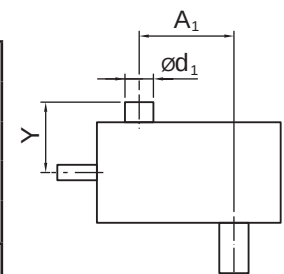
TYPE K3H

TRIPLE STAGE - SIZE 14 - 18

E



Size	Input Shaft								Output Shaft				Backstop				
	i = 20 - 50			i = 56 - 71													
	i = 22.4 - 63			i = 71 - 90													
	i = 25 - 71			i = 80 - 100													
d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾			
K3..14	19	90	40	19	90	40	435	240	48	95	106	125	190	90	180	70	3.5
K3..15	24	100	50	24	100	50	470	270	55	95	127	135	215	95	215	95	4.5
K3..16	24	100	50	24	100	50	530	300	60	130	133	145	240	95	215	130	6.5
K3..17	28	100	50	24	100	50	580	340	70	135	141	150	270	95	215	175	9
K3..18	32	110	60	28	100	50	645	360	80	160	158	170	305	140	265	235	13



Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ²⁾	N	O	P	R	S	T
K3..14	385	400	140	194	190	150	125	278	340	38	14	80	140	24	345
K3..15	420	460	155	215	228	170	140	306	370	38	14	95	170	24	395
K3..16	480	521	175	231	233	190	160	327	410	38	14	110	195	24	450
K3..17	530	580	190	257	250	210	180	378	450	43	18	115	210	32	495
K3..18	595	648	215	281	284	230	200	404	490	43	18	135	240	32	565

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

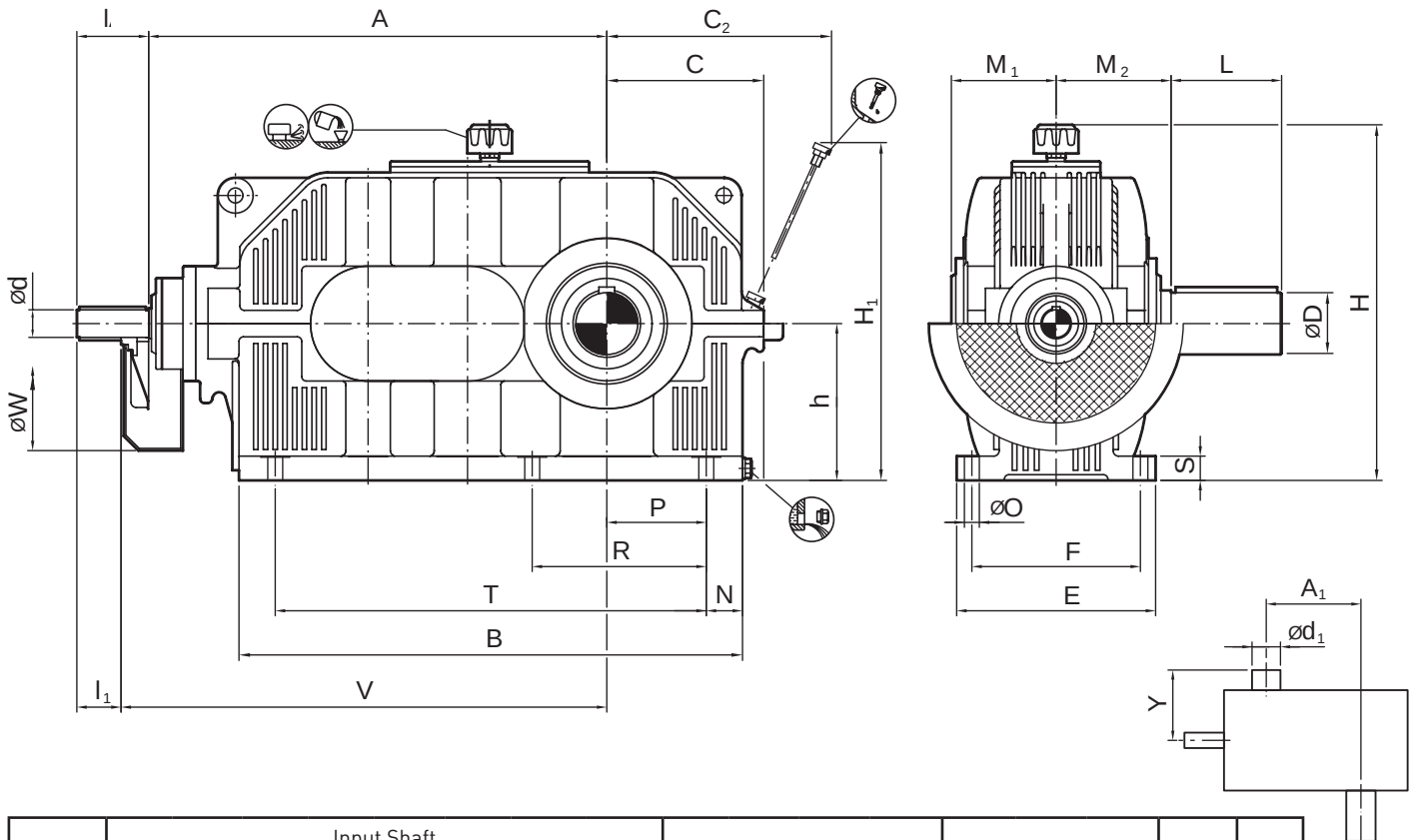
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE K3H

TRIPLE STAGE - SIZE 14 - 18



Size	Input Shaft								Output Shaft				Backstop				
	i = 20 - 50			i = 56 - 71													
	i = 22.4 - 63			i = 71 - 90													
	i = 25 - 71			i = 80 - 100													
	d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
K3..14	0.75	3.54	1.57	0.75	3.54	1.57	17.13	9.45	1.89	3.74	4.17	4.92	7.48	3.54	7.09	154	0.9
K3..15	0.94	3.94	1.97	0.94	3.94	1.97	18.50	10.63	2.17	3.74	5.00	5.31	8.46	3.74	8.46	209	1.2
K3..16	0.94	3.94	1.97	0.94	3.94	1.97	20.87	11.81	2.36	5.12	5.24	5.71	9.45	3.74	8.46	287	1.7
K3..17	1.10	3.94	1.97	0.94	3.94	1.97	22.83	13.39	2.76	5.31	5.55	5.91	10.63	3.74	8.46	386	2.4
K3..18	1.26	4.33	2.36	1.10	3.94	1.97	25.39	14.17	3.15	6.30	6.22	6.69	12.01	5.51	10.43	518	3.4

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ²⁾	N	O	P	R	S	T
K3..14	15.16	15.75	5.51	7.64	7.48	5.91	4.92	10.94	13.39	1.50	0.55	3.15	5.51	0.94	13.58
K3..15	16.54	18.11	6.10	8.46	8.98	6.69	5.51	12.05	14.57	1.50	0.55	3.74	6.69	0.94	15.55
K3..16	18.90	20.51	6.89	9.09	9.17	7.48	6.30	12.87	16.14	1.50	0.55	4.33	7.68	0.94	17.72
K3..17	20.87	22.83	7.48	10.12	9.84	8.27	7.09	14.88	17.72	1.69	0.71	4.53	8.27	1.26	19.49
K3..18	23.43	25.51	8.46	11.06	11.18	9.06	7.87	15.91	19.29	1.69	0.71	5.31	9.45	1.26	22.24

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

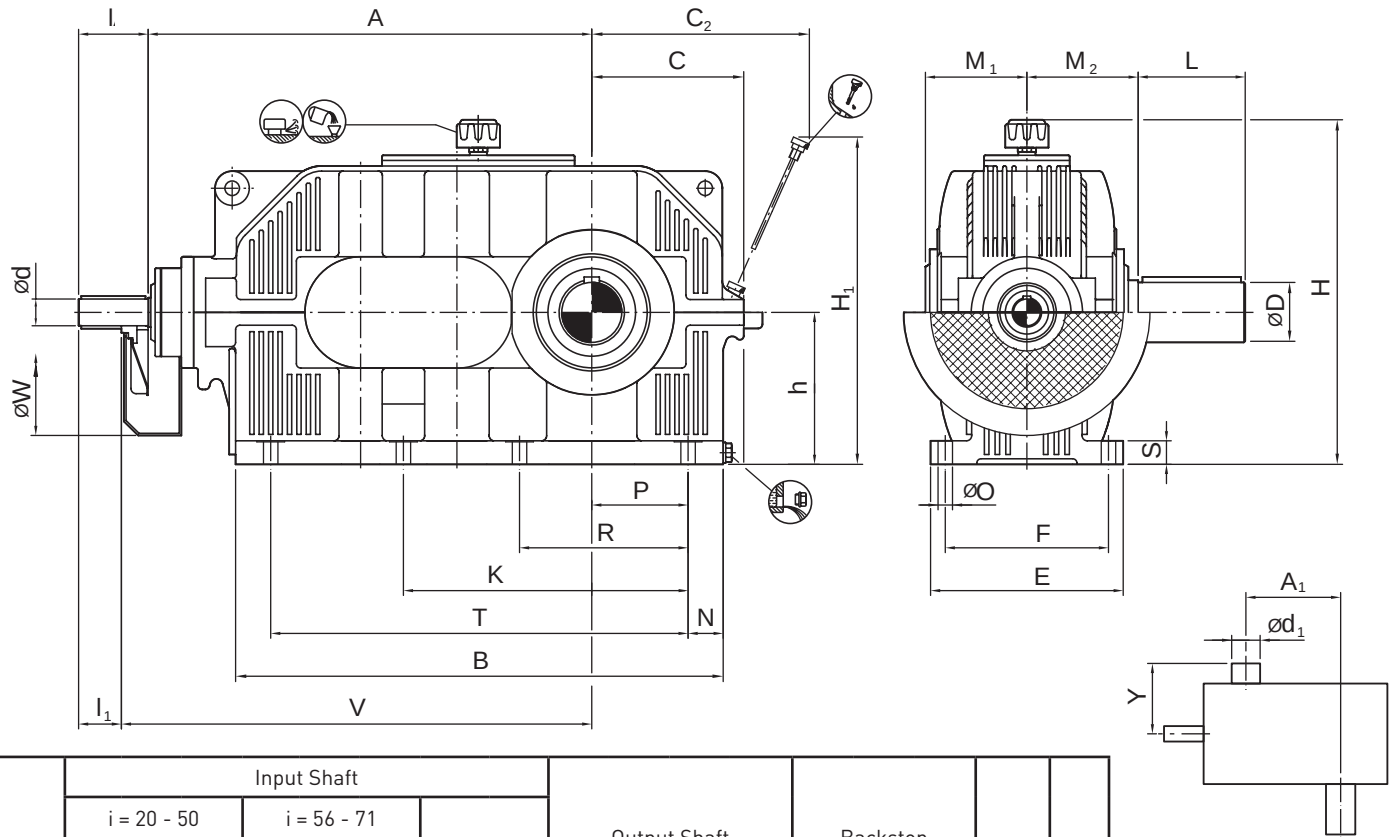
DIMENSIONS IN mm

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE K3H

TRIPLE STAGE - SIZE 19 - 26

E



Size	Input Shaft								Output Shaft				Backstop				
	i = 20 - 50			i = 56 - 71													
	i = 22.4 - 63			i = 71 - 90													
	i = 25 - 71			i = 80 - 100													
d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾			
K3..19	38	110	60	32	110	60	710	360	90	165	171	180	340	150	265	320	18
K3..20	42	130	80	38	110	60	795	400	100	200	176	200	385	150	265	430	26
K3..21	48	130	80	42	130	80	885	460	110	200	210	220	430	190	340	580	33
K3..22	52	130	80	48	130	80	970	530	120	210	220	230	480	190	340	780	46
K3..23	58	135	85	52	130	80	1085	550	140	250	234	260	540	190	340	1060	65
K3..24	65	155	105	65	155	105	1195	600	160	290	283	295	605	245	440	1430	90
K3..25	70	155	105	70	155	105	1325	650	170	300	293	305	680	245	440	1930	125
K3..26	85	180	130	80	180	130	1475	700	190	350	306	345	765	245	440	2590	180

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ²⁾	K	N	O	P	R	S	T
K3..19	660	716	240	315	303	250	225	455	540	—	53	23	145	255	36	615
K3..20	745	807	260	345	314	270	250	496	590	—	54	23	165	290	36	705
K3..21	835	898	290	394	385	310	280	572	650	—	64	27	180	315	45	780
K3..22	920	1010	325	429	400	340	315	635	720	—	75	27	200	355	45	880
K3..23	1035	1139	355	481	450	380	355	705	800	655	87	33	220	405	55	985
K3..24	1145	1269	390	541	515	410	400	795	890	740	92	33	245	450	55	1110
K3..25	1275	1411	440	591	535	460	450	865	990	840	98	33	280	510	55	1245
K3..26	1425	1586	490	659	600	510	500	954	1090	940	108	39	315	575	65	1400

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

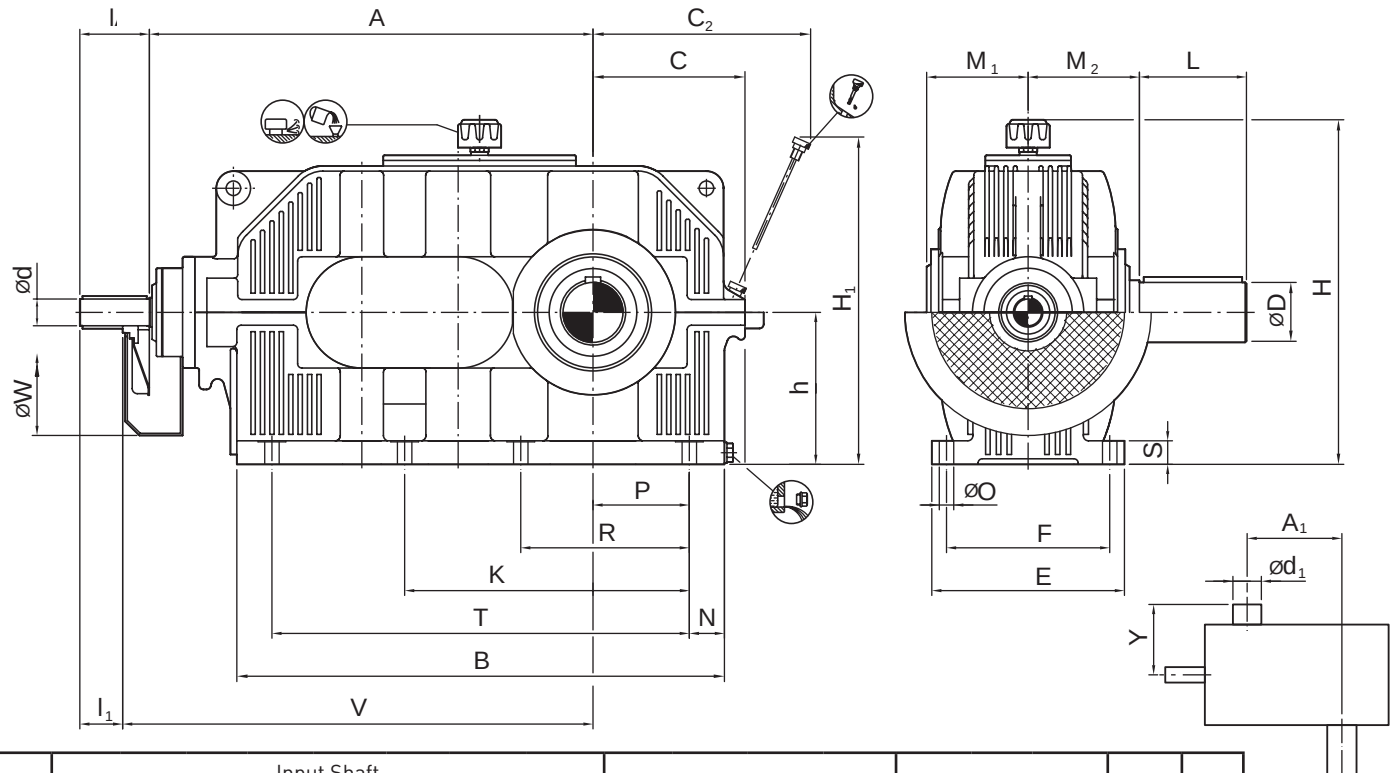
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE K3H

TRIPLE STAGE - SIZE 19 - 26



Size	Input Shaft								Output Shaft				Backstop				
	i = 20 - 50			i = 56 - 71													
	i = 22.4 - 63			i = 71 - 90													
	i = 25 - 71			i = 80 - 100													
	d	l	l ₁	d	l	l ₁	V	W	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
K3..19	1.50	4.33	2.36	1.26	4.33	2.36	27.95	14.17	3.54	6.50	6.73	7.09	13.39	5.91	10.43	705	4.8
K3..20	1.65	5.12	3.15	1.50	4.33	2.36	31.30	15.75	3.94	7.87	6.93	7.87	15.16	5.91	10.43	948	6.9
K3..21	1.89	5.12	3.15	1.65	5.12	3.15	34.84	18.11	4.33	7.87	8.27	8.66	16.93	7.48	13.39	1279	8.7
K3..22	2.05	5.12	3.15	1.89	5.12	3.15	38.19	20.87	4.72	8.27	8.66	9.06	18.90	7.48	13.39	1720	12.2
K3..23	2.28	5.31	3.35	2.05	5.12	3.15	42.72	21.65	5.51	9.84	9.21	10.24	21.26	7.48	13.39	2337	17.2
K3..24	2.56	6.10	4.13	2.56	6.10	4.13	47.05	23.62	6.30	11.42	11.14	11.61	23.82	9.65	17.32	3153	23.8
K3..25	2.76	6.10	4.13	2.76	6.10	4.13	52.17	25.59	6.69	11.81	11.54	12.01	26.77	9.65	17.32	4255	33.0
K3..26	3.35	7.09	5.12	3.15	7.09	5.12	58.07	27.56	7.48	13.78	12.05	13.58	30.12	9.65	17.32	5710	47.6

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ²⁾	K	N	O	P	R	S	T
K3..19	25.98	28.19	9.45	12.40	11.93	9.84	8.86	17.91	21.26		2.09	0.91	5.71	10.04	1.42	24.21
K3..20	29.33	31.77	10.24	13.58	12.36	10.63	9.84	19.53	23.23		2.13	0.91	6.50	11.42	1.42	27.76
K3..21	32.87	35.35	11.42	15.51	15.16	12.20	11.02	22.52	25.59		2.52	1.06	7.09	12.40	1.77	30.71
K3..22	36.22	39.76	12.80	16.89	15.75	13.39	12.40	25.00	28.35		2.95	1.06	7.87	13.98	1.77	34.65
K3..23	40.75	44.84	13.98	18.94	17.72	14.96	13.98	27.76	31.50	25.79	3.43	1.30	8.66	15.94	2.17	38.78
K3..24	45.08	49.96	15.35	21.30	20.28	16.14	15.75	31.30	35.04	29.13	3.62	1.30	9.65	17.72	2.17	43.70
K3..25	50.20	55.55	17.32	23.27	21.06	18.11	17.72	34.06	38.98	33.07	3.86	1.30	11.02	20.08	2.17	49.02
K3..26	56.10	62.44	19.29	25.94	23.62	20.08	19.68	37.56	42.91	37.01	4.25	1.54	12.40	22.64	2.56	55.12

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

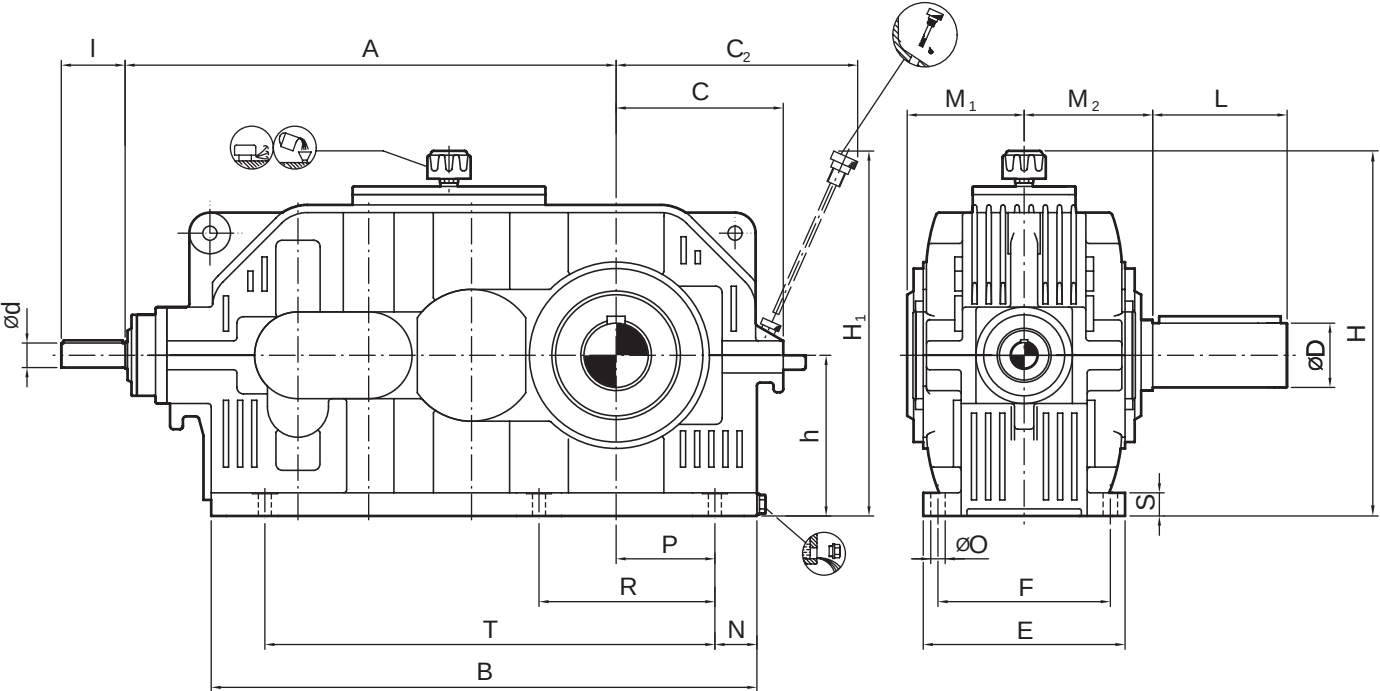
SERIES E

mm

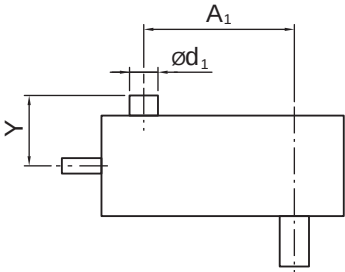
DIMENSIONS IN mm
HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE K4H
QUADRUPLE STAGE - SIZE 17 TO 18

E



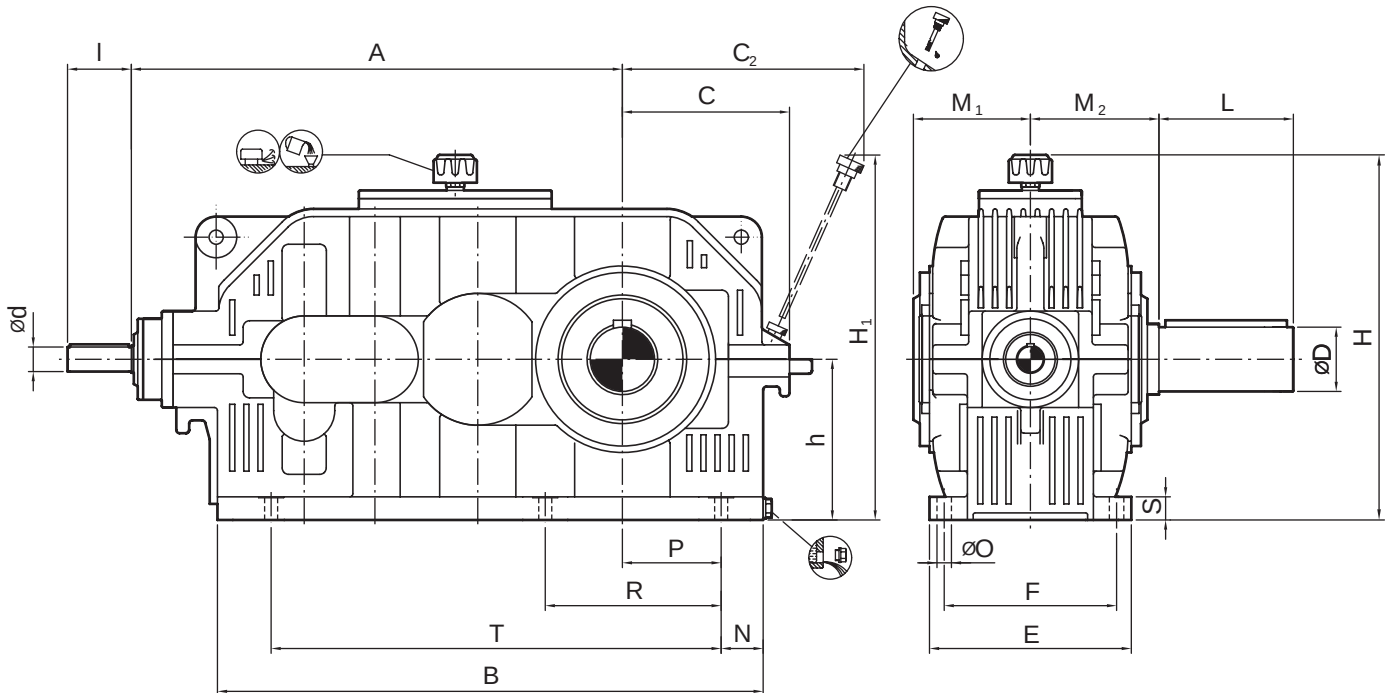
Size	Input Shaft				Output Shaft				Backstop					
	i = 80 - 225		i = 250 - 400											
	i = 112 - 400		i = 450 - 560											
	d	l	d	l	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾			
K4..17	19	90	19	90	70	135	141	150	350	85	210	175	9	
K4..18	24	100	24	100	80	160	158	170	395	95	255	235	13	



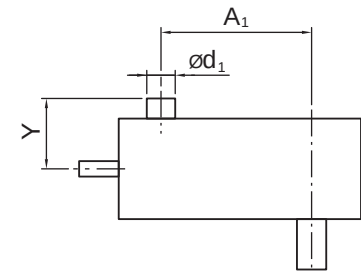
Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	N	O	P	R	S	T
K4..17	545	592	190	257	250	210	180	378	450	43	18	115	210	32	495
K4..18	600	671	215	281	284	230	200	404	490	43	18	135	240	32	565

Modification of dimensions reserved.
Shaft ends with keys according to DIN 6885, part 1, Shape A.
Shaft centering according to DIN 332, shape DS (with thread)
Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

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



Size	Input Shaft				Output Shaft				Backstop			 lbs	 gl
	i = 80 - 225		i = 250 - 400										
	i = 112 - 400		i = 450 - 560										
	d	l	d	l	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
K4..17	0.75	3.54	0.75	3.54	2.76	5.31	5.55	5.91	13.78	3.35	8.27	386	2.4
K4..18	0.94	3.94	0.94	3.94	3.15	6.30	6.22	6.69	15.55	3.74	10.04	518	3.4



Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	N	O	P	R	S	T
K4..17	21.46	23.31	7.48	10.12	9.84	8.27	7.09	14.88	17.72	1.69	0.71	4.53	8.27	1.26	19.49
K4..18	23.62	26.42	8.46	11.06	11.18	9.06	7.87	15.91	19.29	1.69	0.71	5.31	9.45	1.26	22.24

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

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

SERIES E

mm

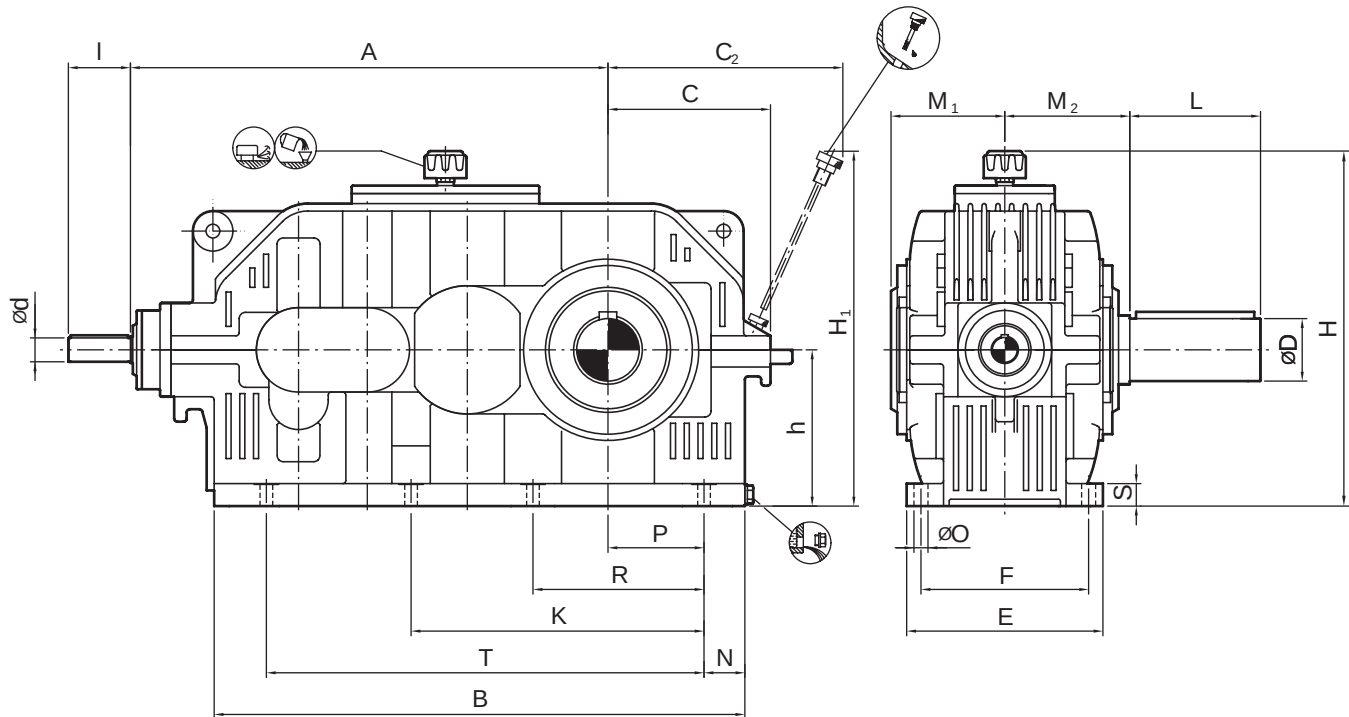
DIMENSIONS IN mm

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

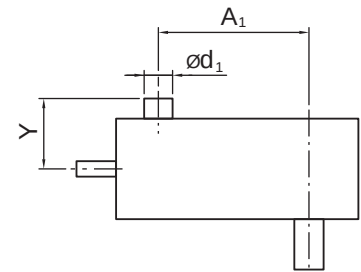
TYPE K4H

QUADRUPLE STAGE - SIZE 19 TO 26

E



Size	Input Shaft				Output Shaft				Backstop				
	i = 80 - 225		i = 250 - 400										
	i = 100 - 315		i = 355 - 560										
	i = 112 - 400		i = 450 - 560										
	d	l	d	l	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾		
K4..19	24	100	24	100	90	165	171	180	440	95	255	320	18
K4..20	28	100	24	100	100	200	176	200	495	95	255	430	26
K4..21	32	110	28	100	110	200	210	220	555	135	310	580	33
K4..22	38	110	32	110	120	210	220	230	620	135	310	780	46
K4..23	42	130	38	110	140	250	234	260	700	140	310	1060	65
K4..24	48	130	42	130	160	290	283	295	785	175	415	1430	90
K4..25	52	130	48	130	170	300	293	305	880	175	415	1930	125
K4..26	58	135	52	130	190	350	306	345	990	190	415	2590	180



Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	K	N	O	P	R	S	T
K4..19	680	751	240	315	303	250	225	455	540	—	53	23	145	255	36	615
K4..20	755	849	260	345	314	270	250	496	590	—	54	23	165	290	36	705
K4..21	845	946	290	394	385	310	280	572	650	—	64	27	180	315	45	780
K4..22	940	1060	325	429	400	340	315	635	720	—	75	27	200	355	45	880
K4..23	1060	1181	355	481	450	380	355	705	800	655	87	33	220	405	55	985
K4..24	1190	1324	390	541	515	410	400	795	890	740	92	33	245	450	55	1110
K4..25	1320	1496	440	591	535	460	450	865	990	840	98	33	280	510	55	1245
K4..26	1485	1686	490	659	600	510	500	954	1090	940	108	39	315	575	65	1400

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

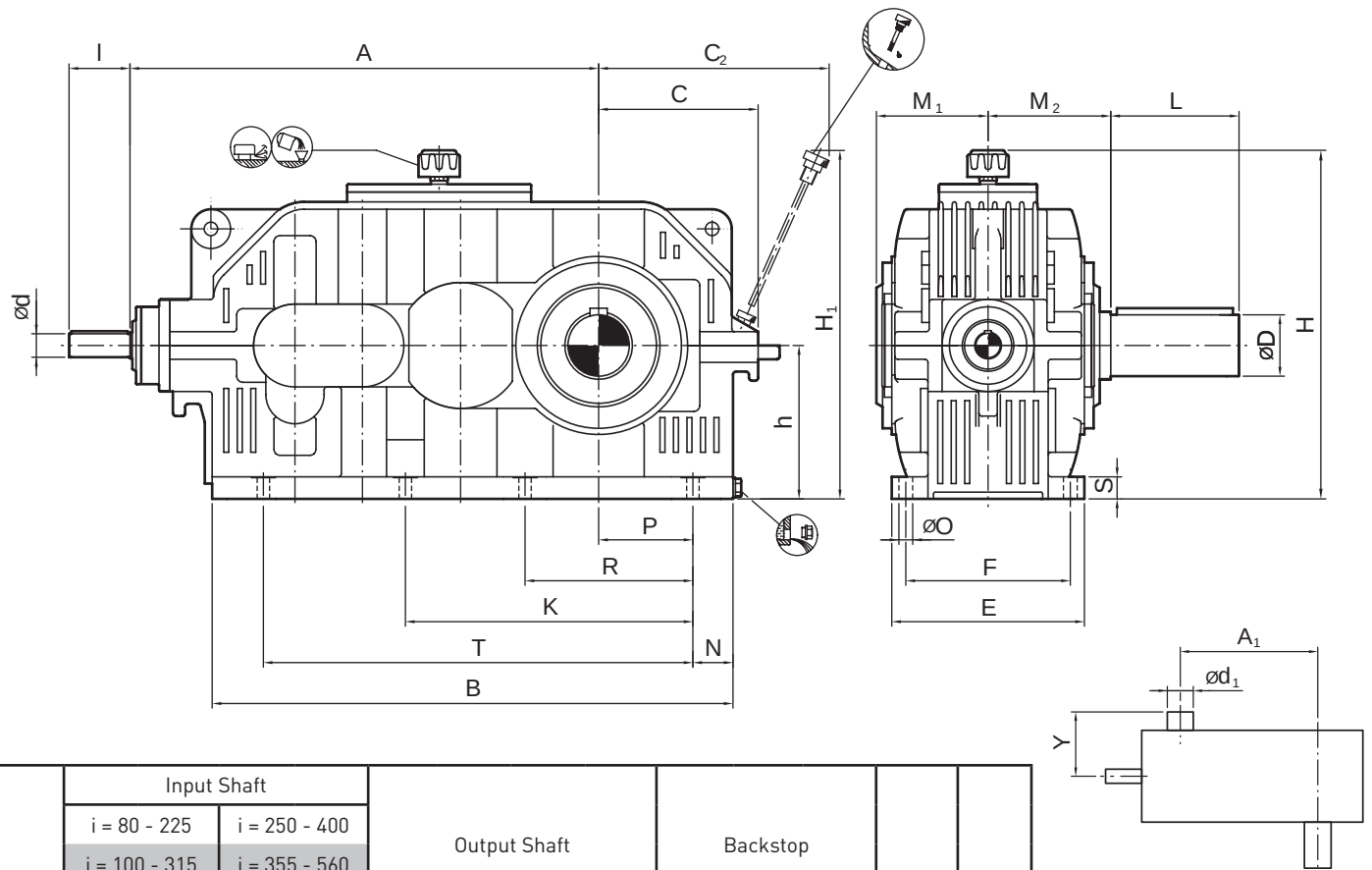
2) Approximate values; exact values acc. to order related documents

DIMENSIONS IN inch

HORIZONTAL MOUNTING - BEVEL HELICAL GEAR UNIT

TYPE K4H

QUADRUPLE STAGE - SIZE 19 TO 26



Size	Input Shaft				Output Shaft				Backstop				
	i = 80 - 225		i = 250 - 400										
	i = 100 - 315		i = 355 - 560										
	i = 112 - 400		i = 450 - 560										
d	l	d	l	D	L	M ₁	M ₂	A ₁	d ₁ ¹⁾	Y ¹⁾			
K4..19	0.94	3.94	0.94	3.94	3.54	6.50	6.73	7.09	17.32	3.74	10.04	705	4.8
K4..20	1.10	3.94	0.94	3.94	3.94	7.87	6.93	7.87	19.49	3.74	10.04	948	6.9
K4..21	1.26	4.33	1.10	3.94	4.33	7.87	8.27	8.66	21.85	5.31	12.20	1279	8.7
K4..22	1.50	4.33	1.26	4.33	4.72	8.27	8.66	9.06	24.41	5.31	12.20	1720	12.2
K4..23	1.65	5.12	1.50	4.33	5.51	9.84	9.21	10.24	27.56	5.51	12.20	2337	17.2
K4..24	1.89	5.12	1.65	5.12	6.30	11.42	11.14	11.61	30.91	6.89	16.34	3153	23.8
K4..25	2.05	5.12	1.89	5.12	6.69	11.81	11.54	12.01	34.65	6.89	16.34	4255	33.0
K4..26	2.28	5.31	2.05	5.12	7.48	13.78	12.05	13.58	38.98	7.48	16.34	5710	47.6

Size	A	B	C	C ₂ ¹⁾	E	F	h	H ₁ ¹⁾	H ₂ ²⁾	K	N	O	P	R	S	T
K4..19	26.77	29.57	9.45	12.40	11.93	9.84	8.86	17.91	21.26		2.09	0.91	5.71	10.04	1.42	24.21
K4..20	29.72	33.43	10.24	13.58	12.36	10.63	9.84	19.53	23.23		2.13	0.91	6.50	11.42	1.42	27.76
K4..21	33.27	37.24	11.42	15.51	15.16	12.20	11.02	22.52	25.59		2.52	1.06	7.09	12.40	1.77	30.71
K4..22	37.01	41.73	12.80	16.89	15.75	13.39	12.40	25.00	28.35		2.95	1.06	7.87	13.98	1.77	34.65
K4..23	41.73	46.50	13.98	18.94	17.72	14.96	13.98	27.76	31.50	25.79	3.43	1.30	8.66	15.94	2.17	38.78
K4..24	46.85	52.13	15.35	21.30	20.28	16.14	15.75	31.30	35.04	29.13	3.62	1.30	9.65	17.72	2.17	43.70
K4..25	51.97	58.90	17.32	23.27	21.06	18.11	17.72	34.06	38.98	33.07	3.86	1.30	11.02	20.08	2.17	49.02
K4..26	58.46	66.38	19.29	25.94	23.62	20.08	19.68	37.56	42.91	37.01	4.25	1.54	12.40	22.64	2.56	55.12

Modification of dimensions reserved.

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

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

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

1) Max. dimensions; details acc. to order related documents

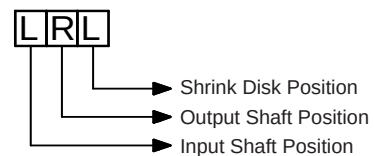
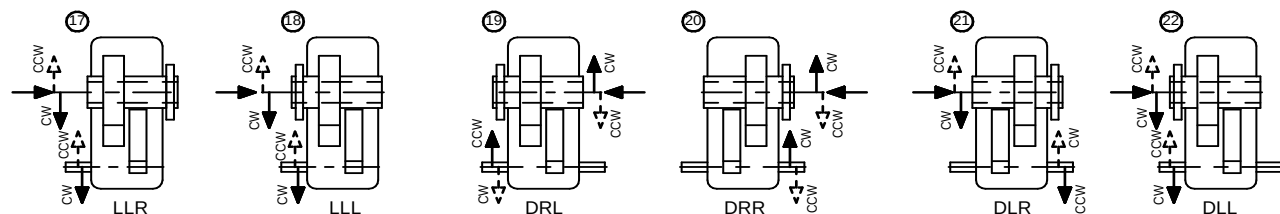
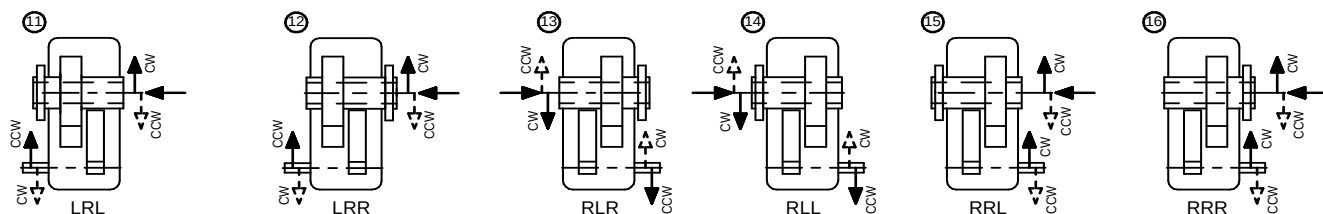
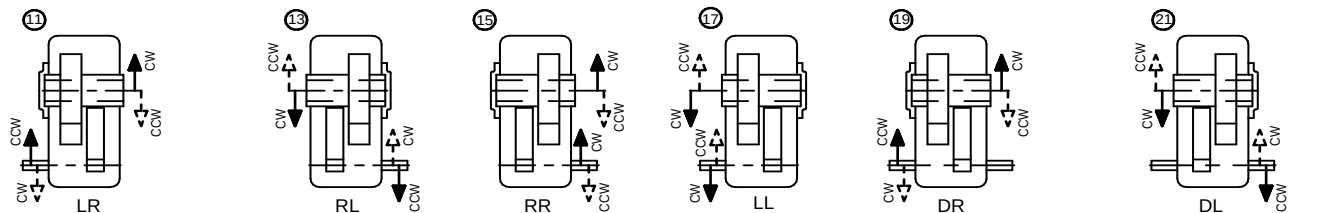
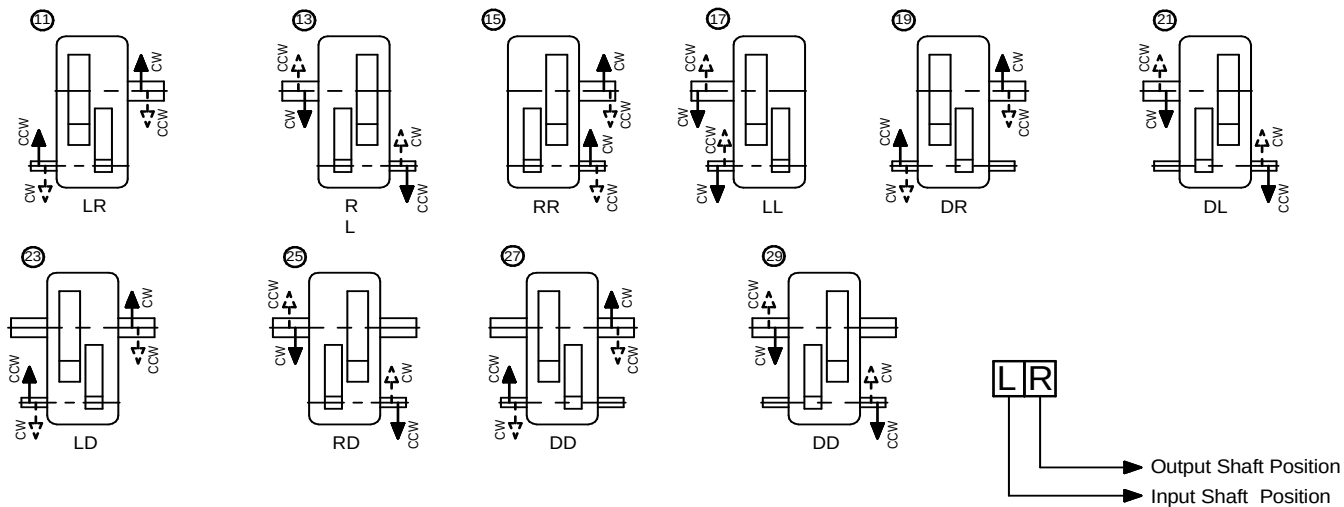
2) Approximate values; exact values acc. to order related documents

SERIES E

SHAFT ARRANGEMENT - HELICAL GEAR UNIT

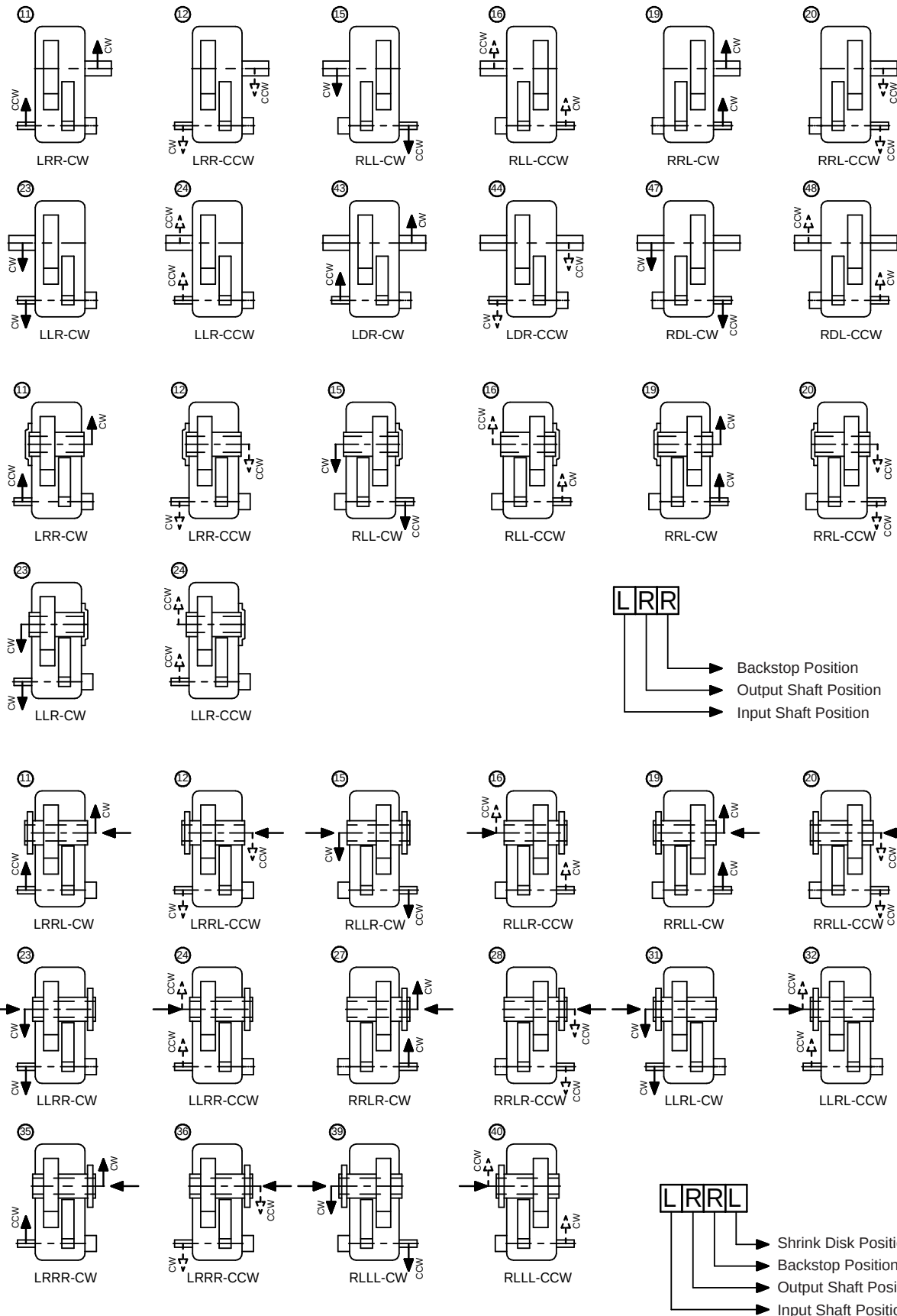
TYPE H2/S2 DOUBLE STAGE

E



SHAFT ARRANGEMENT - BACKSTOP - HELICAL GEAR UNIT

E

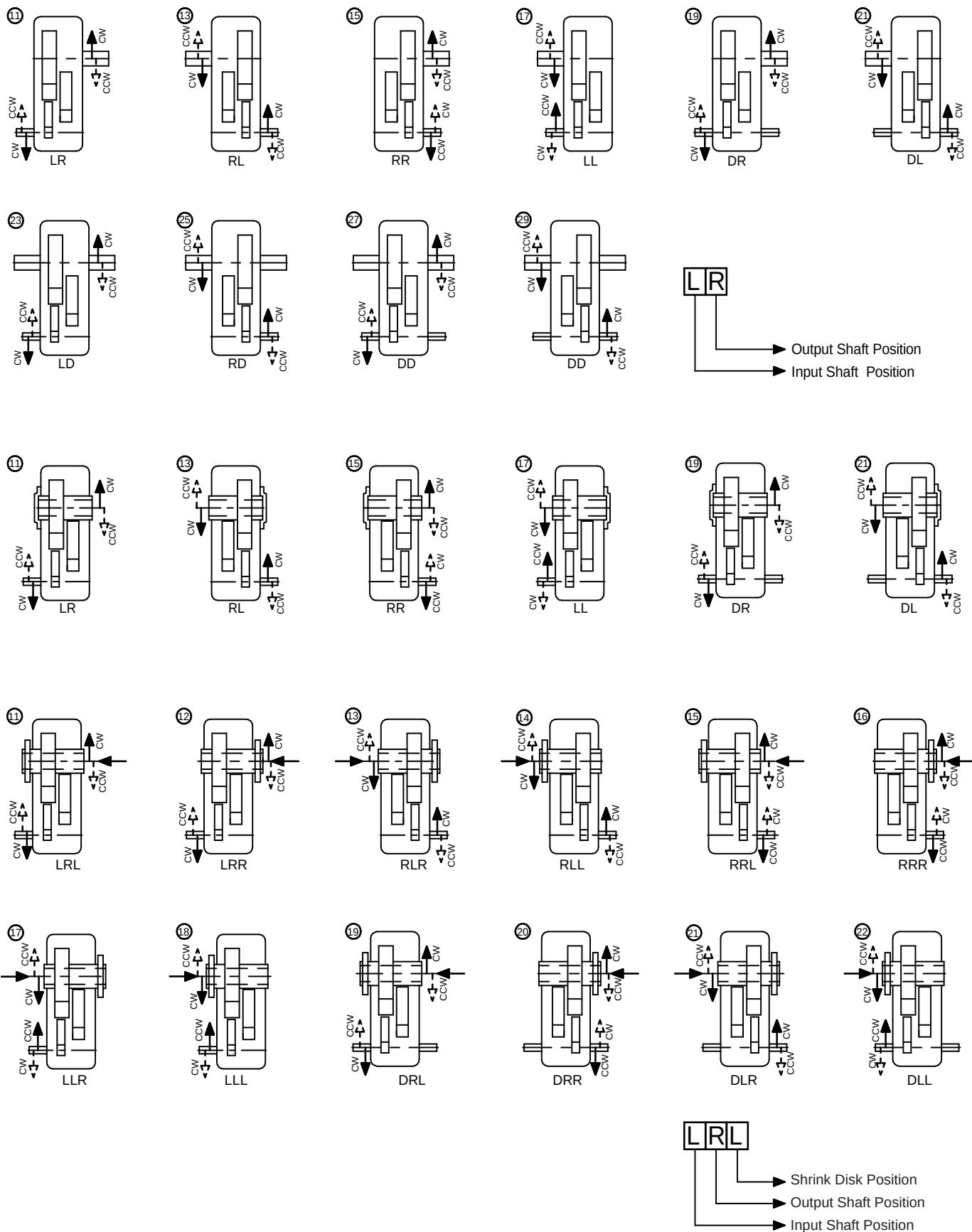


SERIES E

SHAFT ARRANGEMENT - HELICAL GEAR UNIT

TYPE H3/S3 TRIPLE STAGE

E

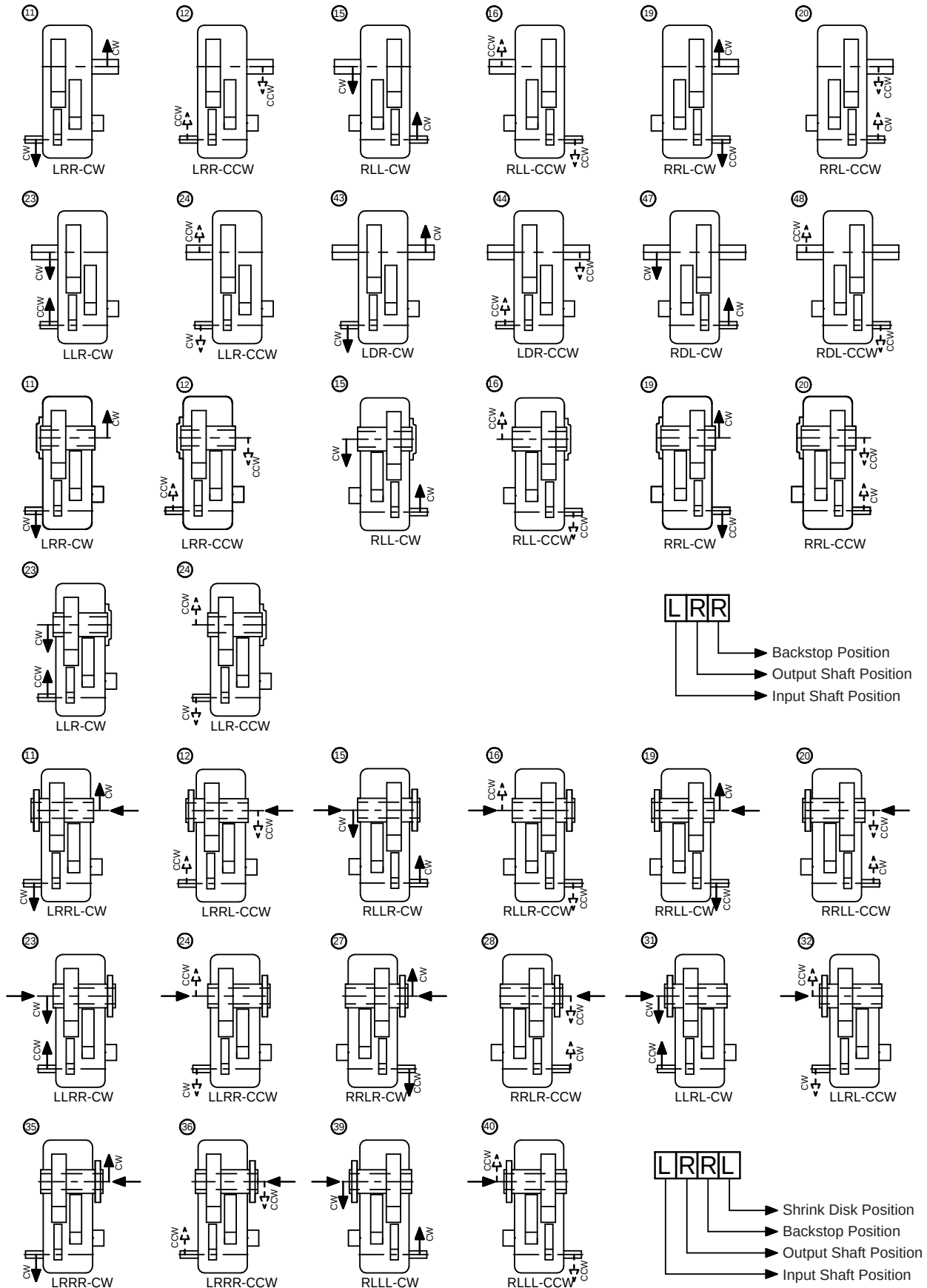


SERIES E

TYPE H3/S3 TRIPLE STAGE

SHAFT ARRANGEMENT - BACKSTOP - HELICAL GEAR UNIT

E

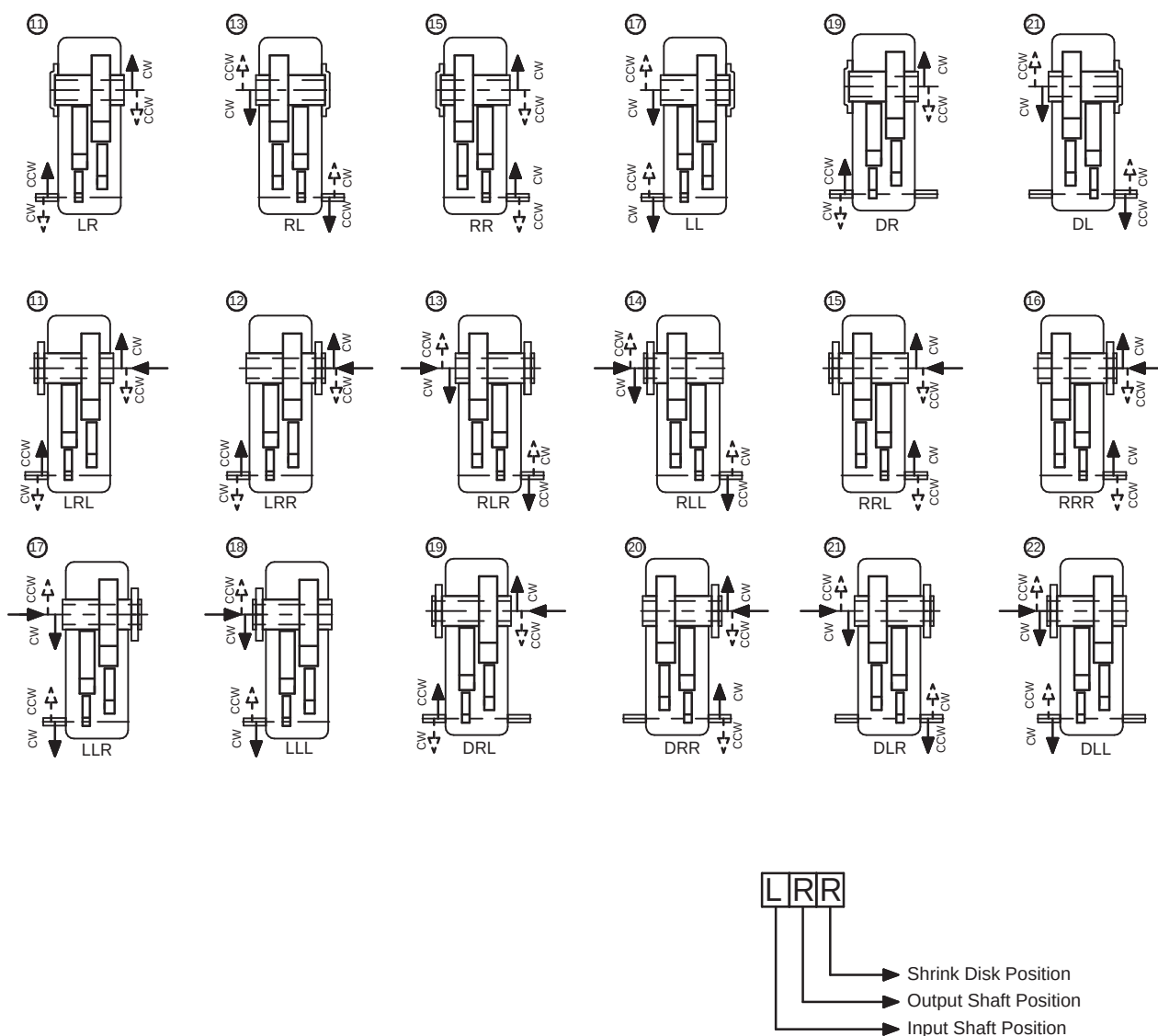
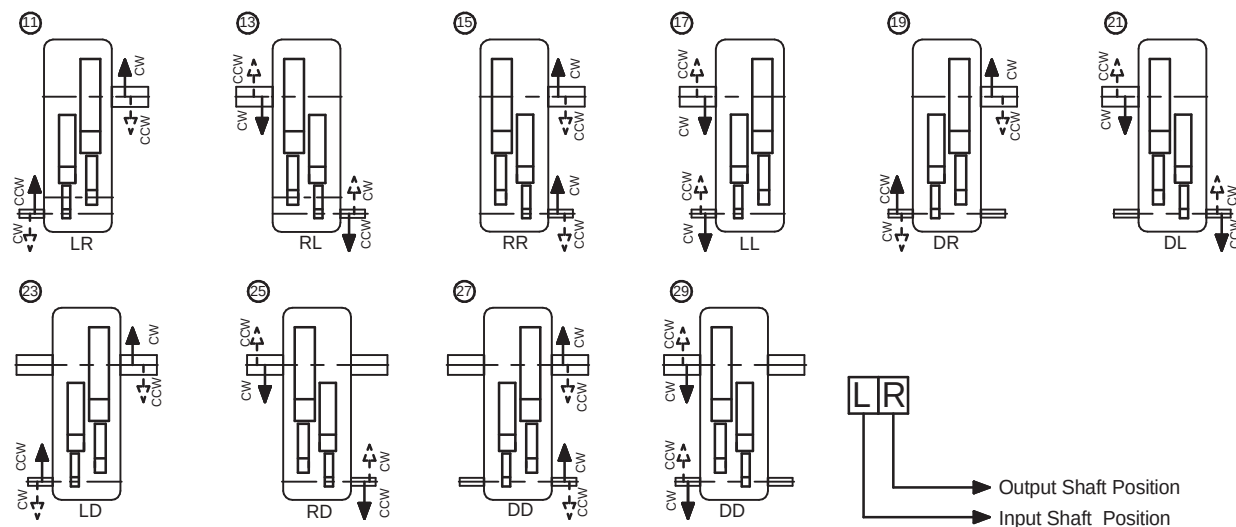


SERIES E

SHAFT ARRANGEMENT - HELICAL GEAR UNIT

TYPE H4/S4 QUADRUPLE STAGE

E

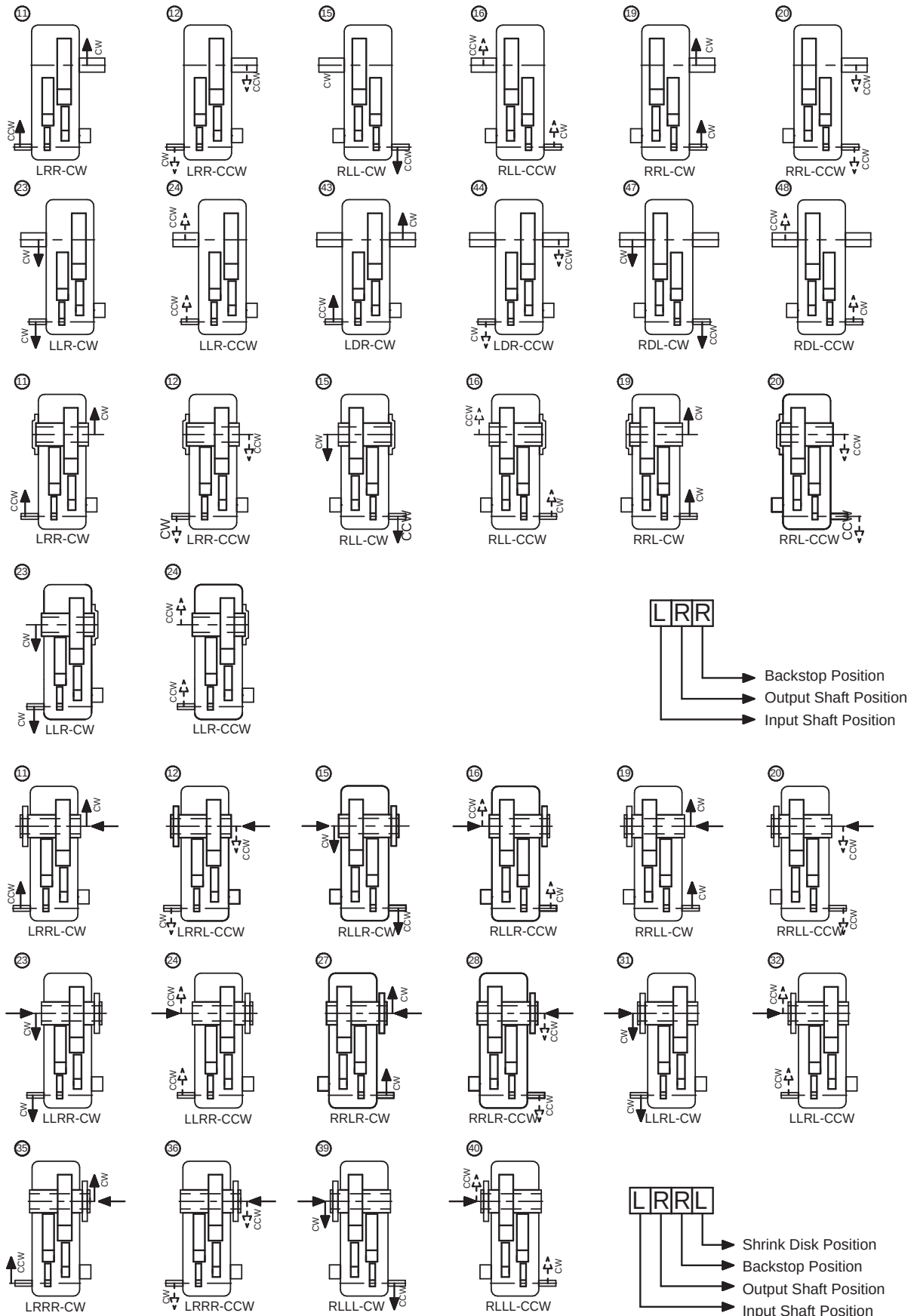


SERIES E

TYPE H4/S4 QUADRUPLE STAGE

SHAFT ARRANGEMENT - BACKSTOP - HELICAL GEAR UNIT

E

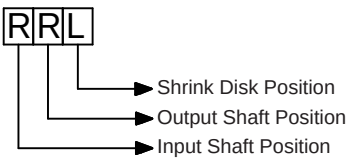
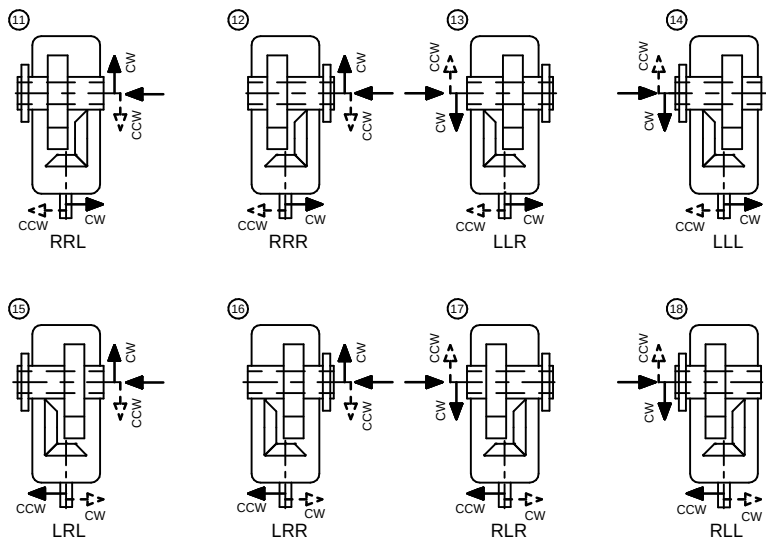
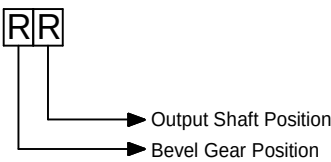
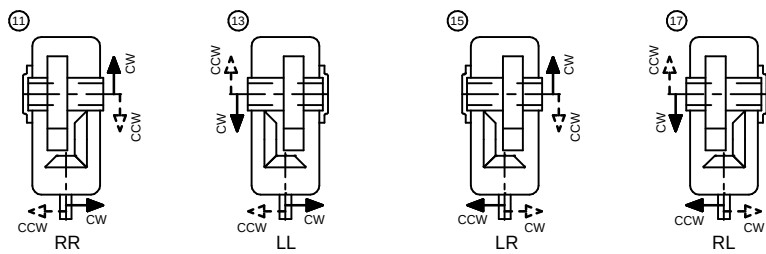
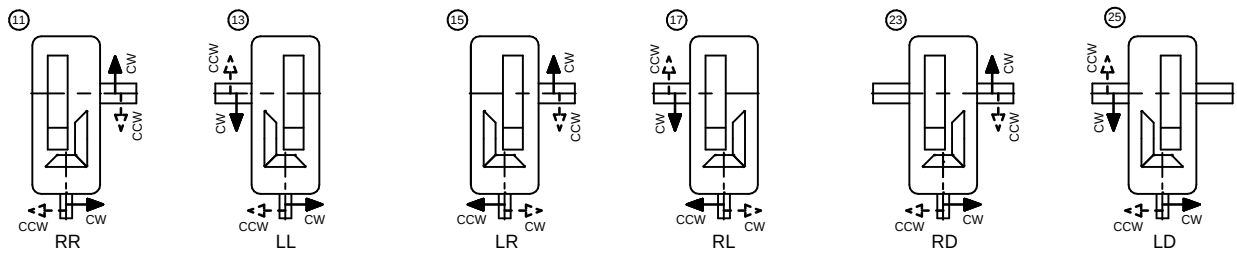


SERIES E

SHAFT ARRANGEMENT - BEVEL HELICAL GEAR UNIT

TYPE B2/K2 DOUBLE STAGE

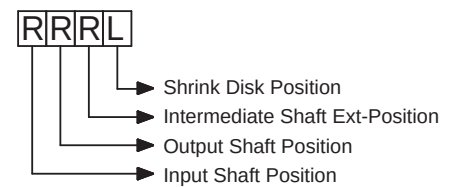
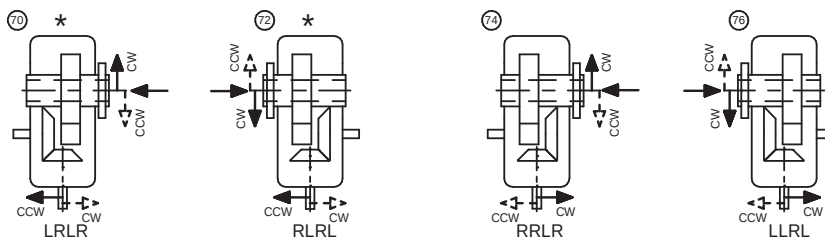
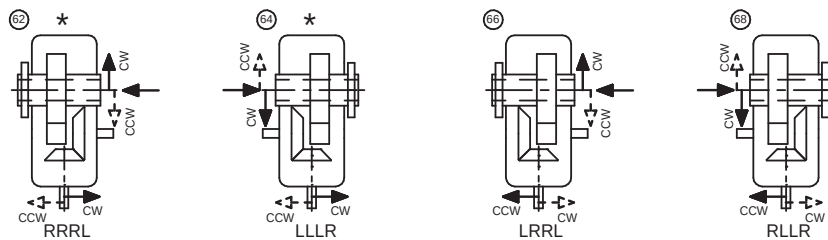
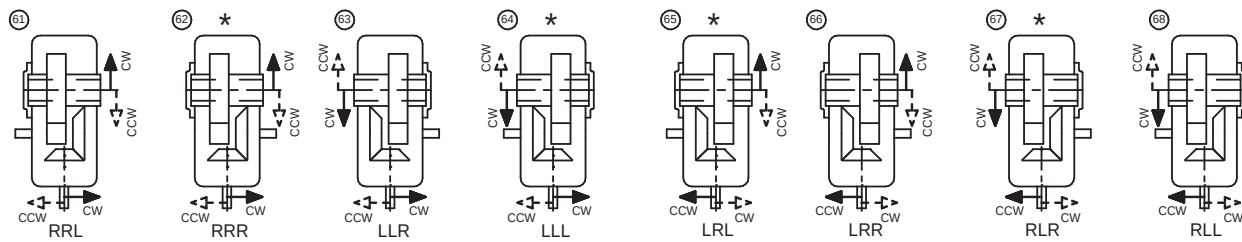
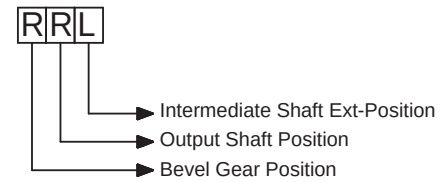
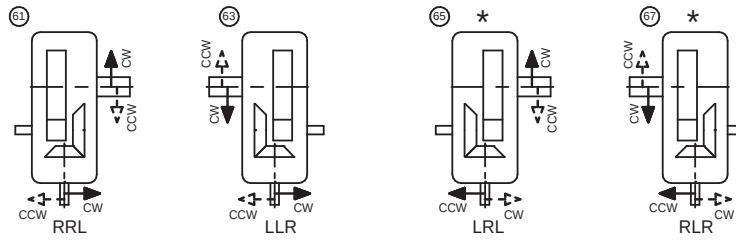
E



SHAFT ARRANGEMENT - INT. EXTENSION - BEVEL HELICAL GEAR UNIT

TYPE B2/K2 DOUBLE STAGE

E

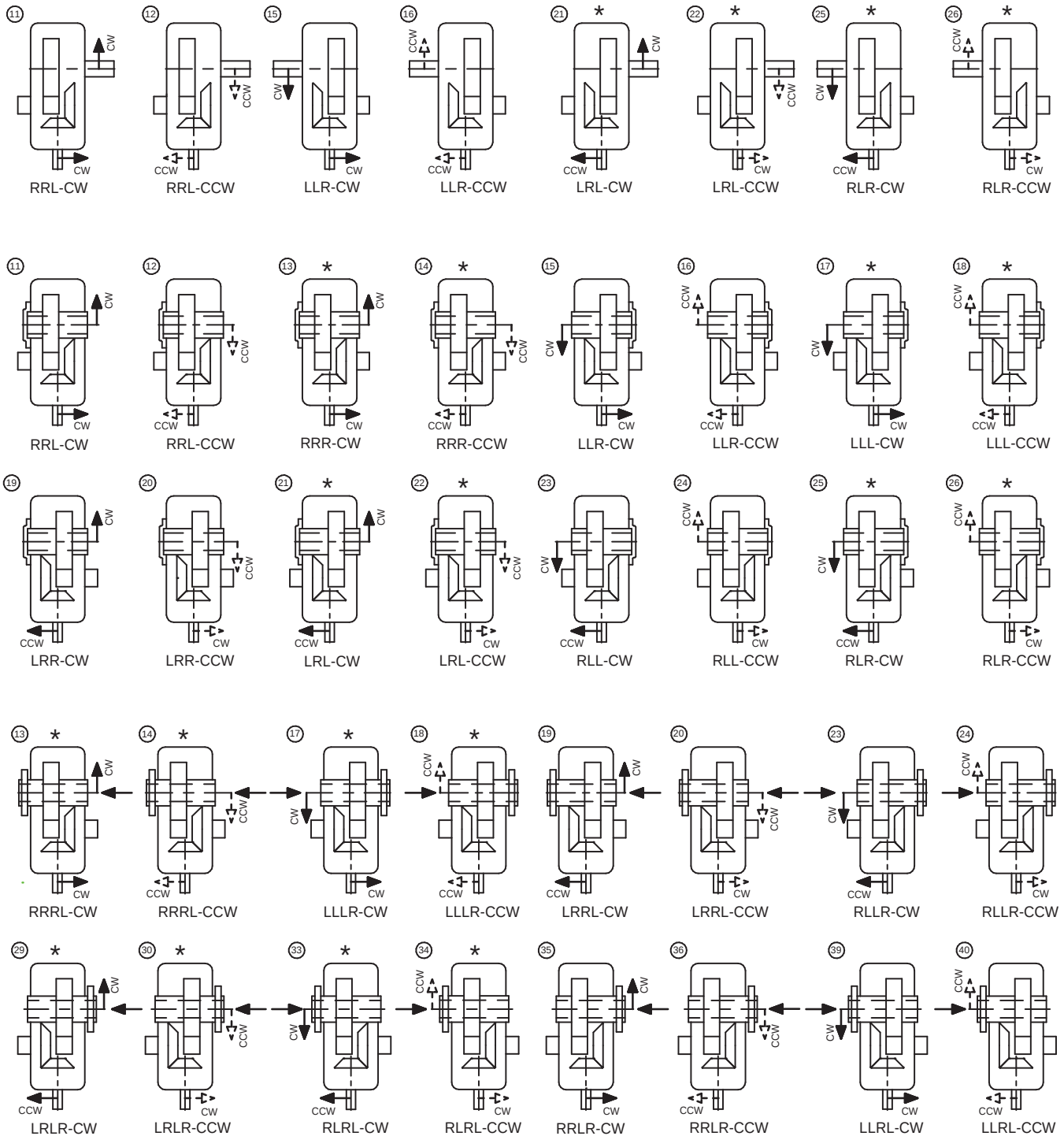


SERIES E

SHAFT ARRANGEMENT - BACKSTOP - BEVEL HELICAL GEAR UNIT

TYPE B2/K2 DOUBLE STAGE

E



RRRL

- Backstop Position
- Output Shaft Position
- Bevel Gear Position

RRRL

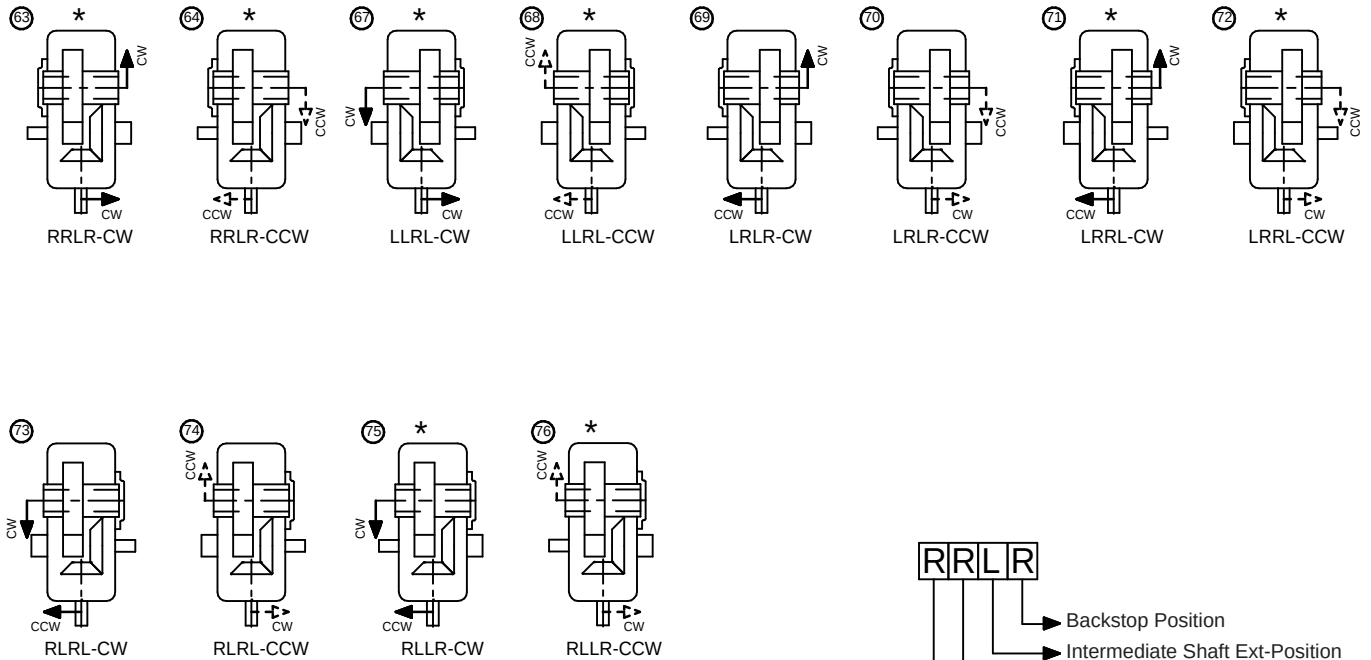
- Shrink Disk Position
- Backstop Position
- Output Shaft Position
- Bevel Gear Position

SERIES E

SHAFT ARRANGEMENT - INT. EXT. & BACKSTOP - BEVEL HELICAL GEAR UNIT

TYPE B2/K2 DOUBLE STAGE

E

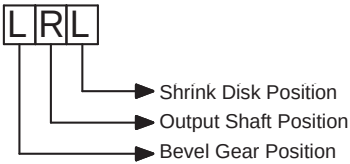
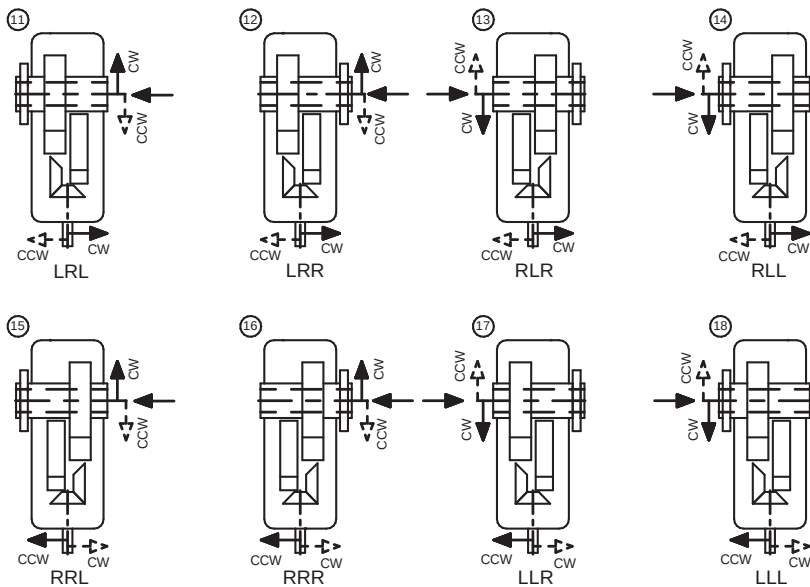
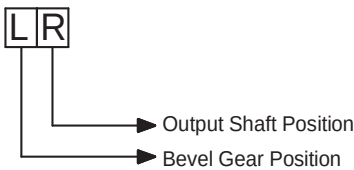
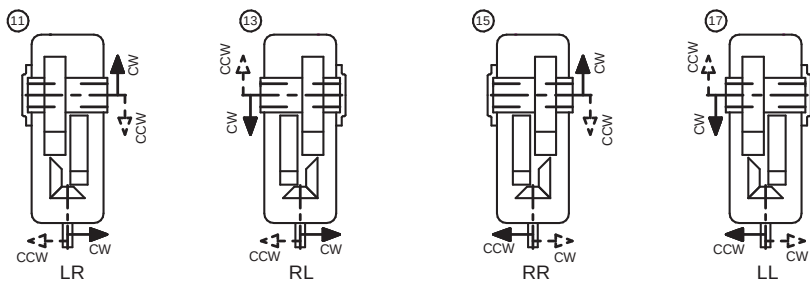
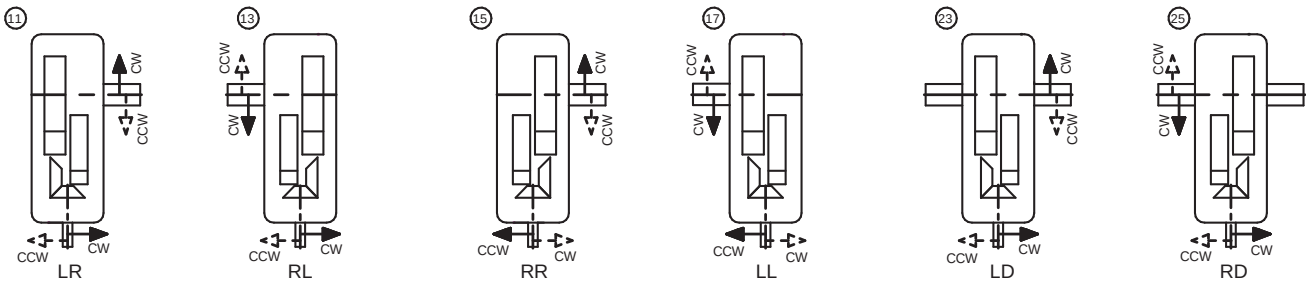


SERIES E

SHAFT ARRANGEMENT - BEVEL HELICAL GEAR UNIT

TYPE B3/K3 TRIPLE STAGE

E

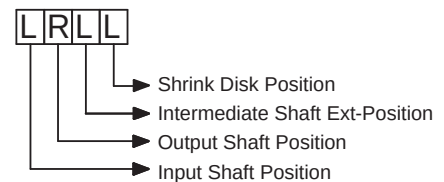
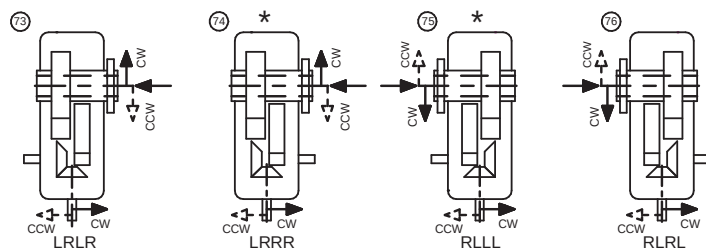
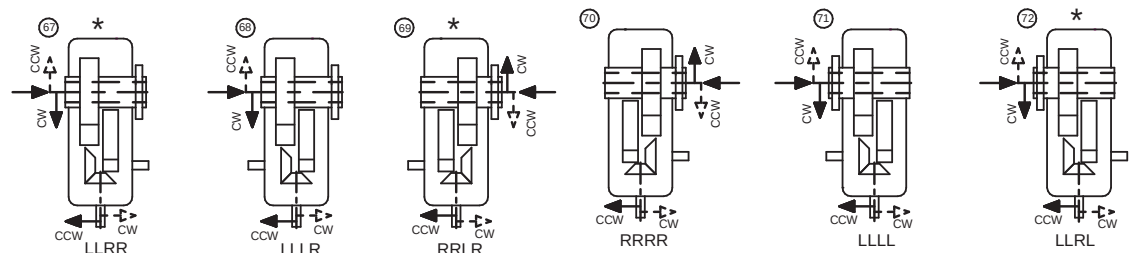
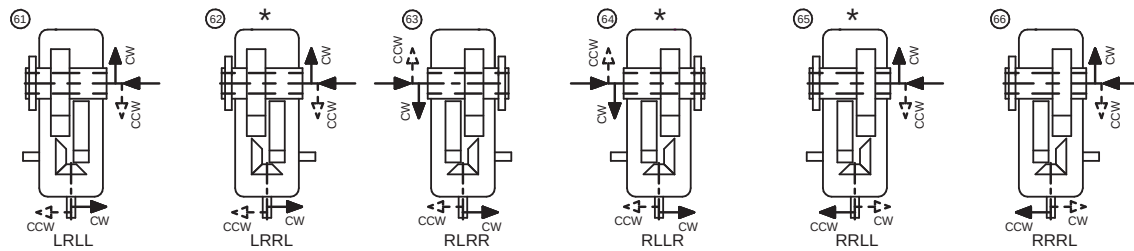
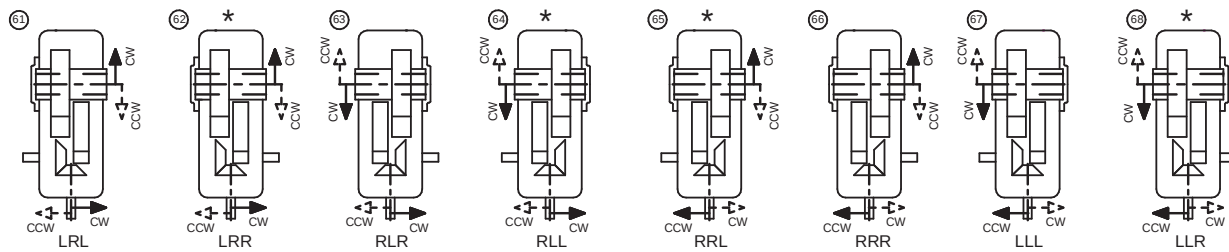
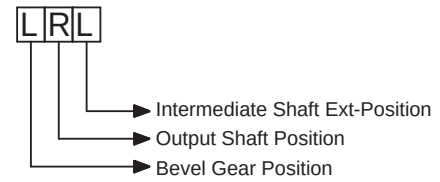
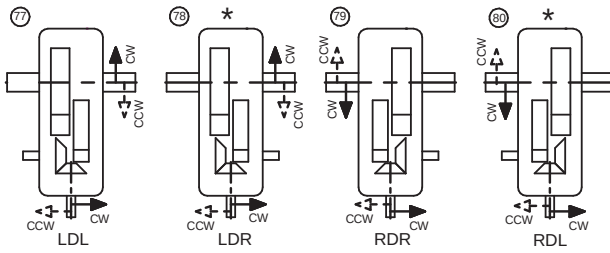
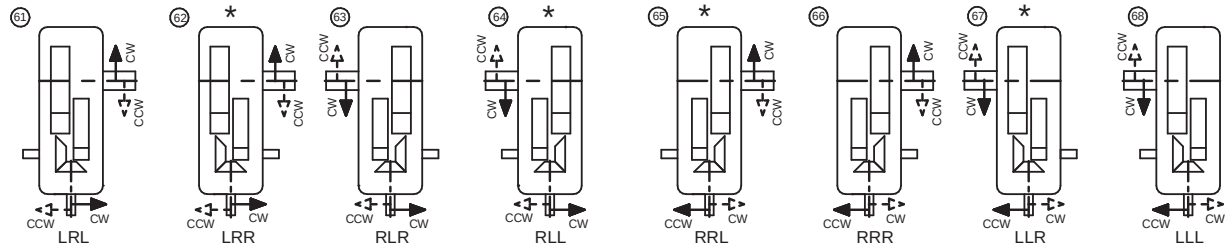


SERIES E

TYPE B3/K3

TRIPLE STAGE

SHAFT ARRANGEMENT - INT. EXT. - BEVEL HELICAL GEAR UNIT



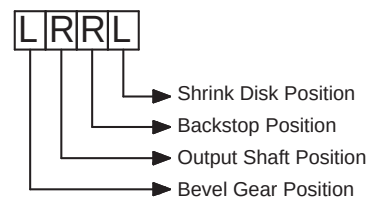
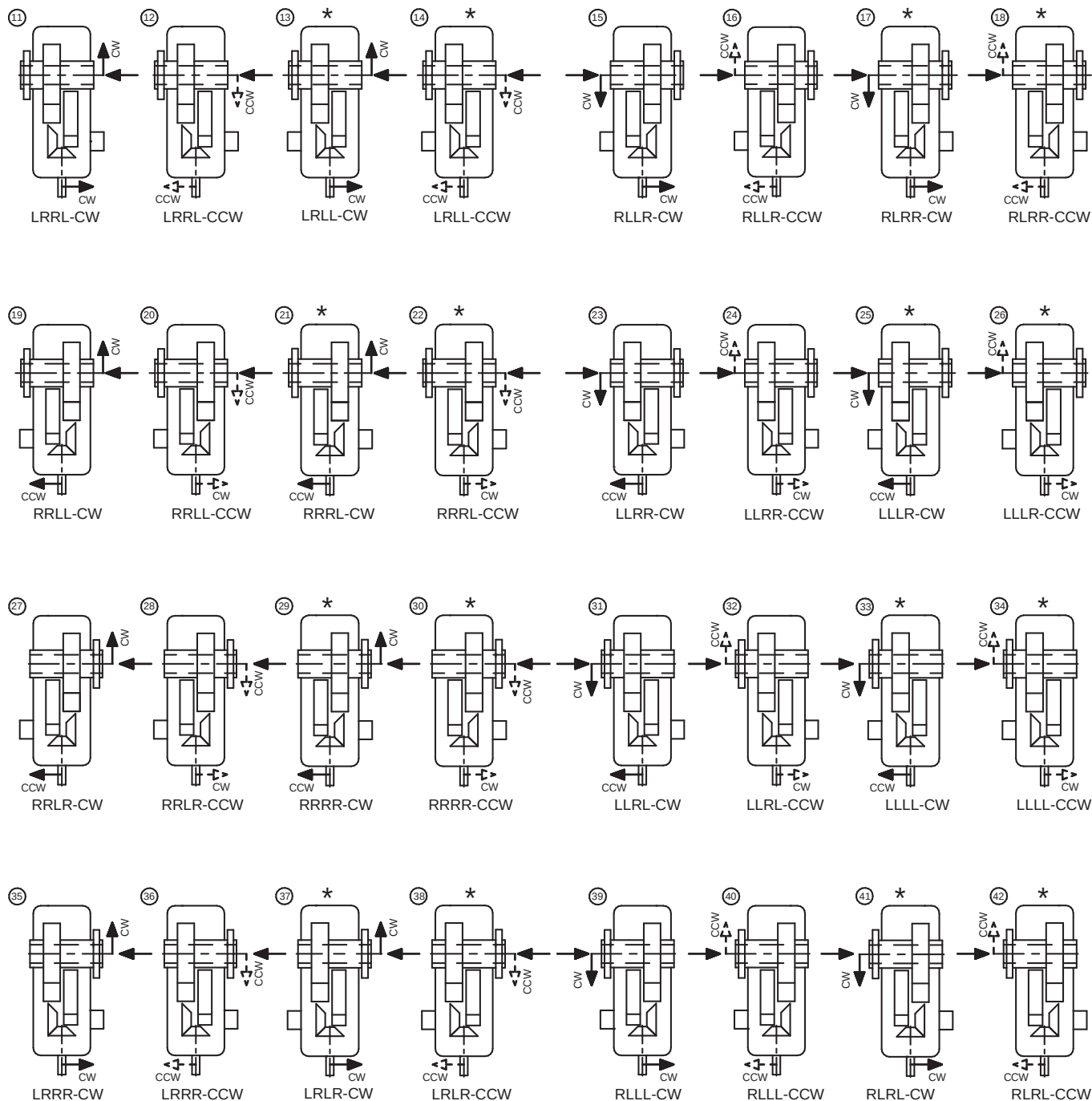
E

SERIES E

SHAFT ARRANGEMENT - BACKSTOP - BEVEL HELICAL GEAR UNIT

TYPE B3/K3 TRIPLE STAGE

E

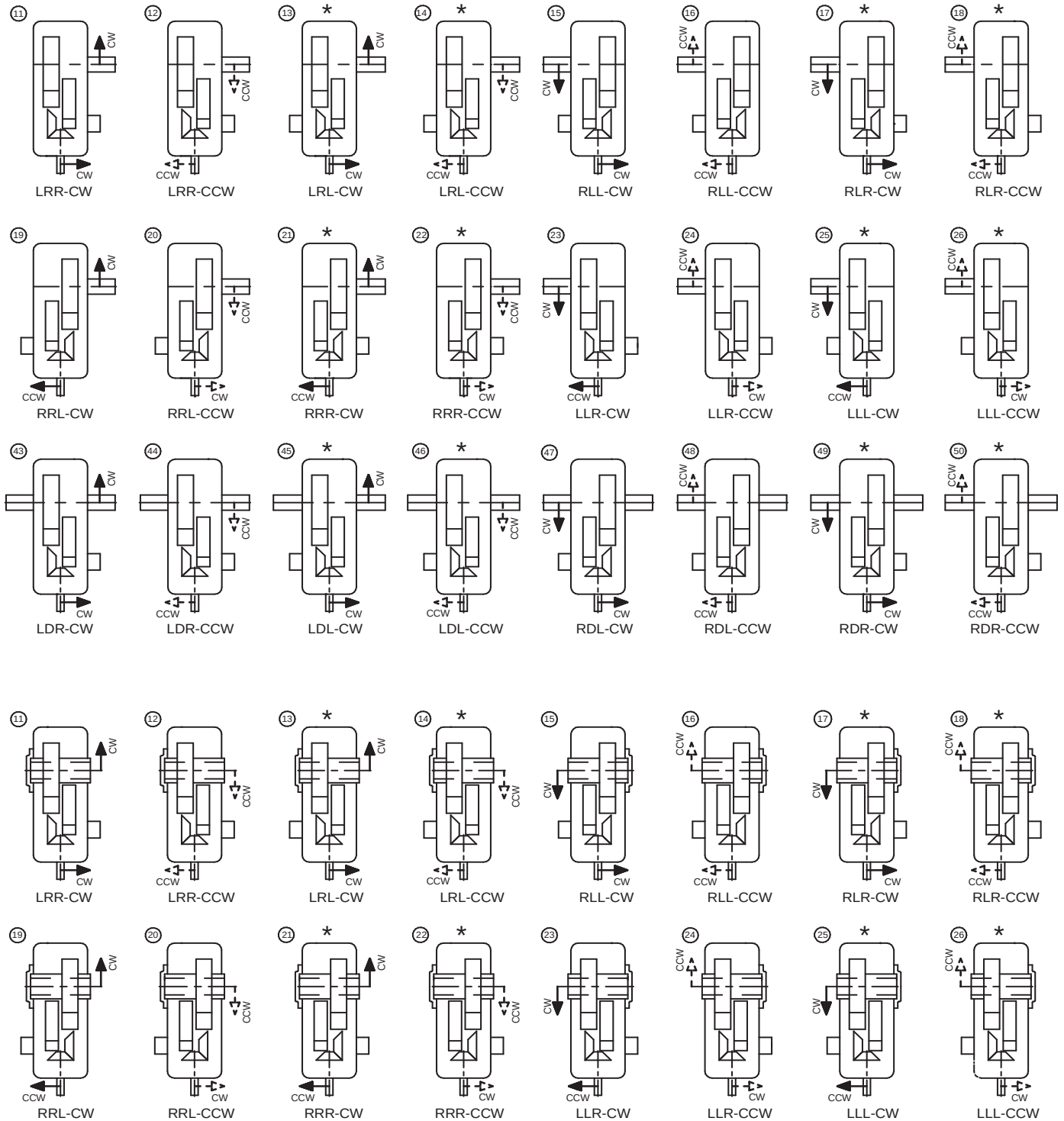


SERIES E

TYPE B3/K3 TRIPLE STAGE

SHAFT ARRANGEMENT - BACKSTOP - BEVEL HELICAL GEAR UNIT

E



LRR

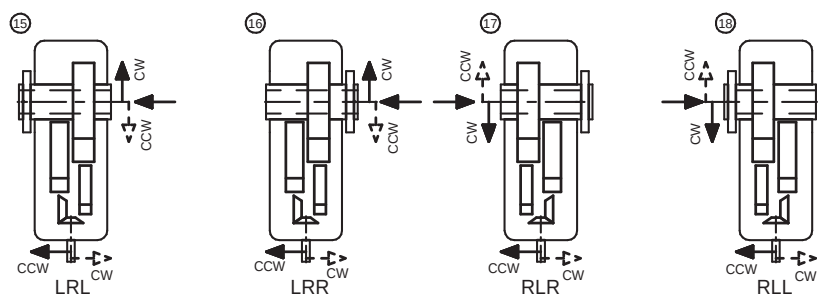
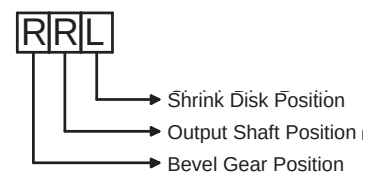
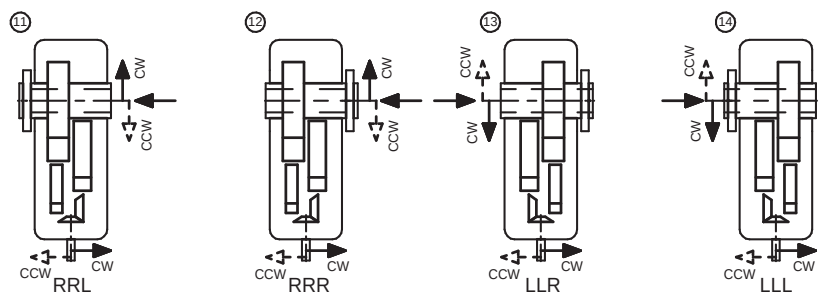
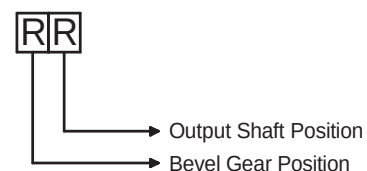
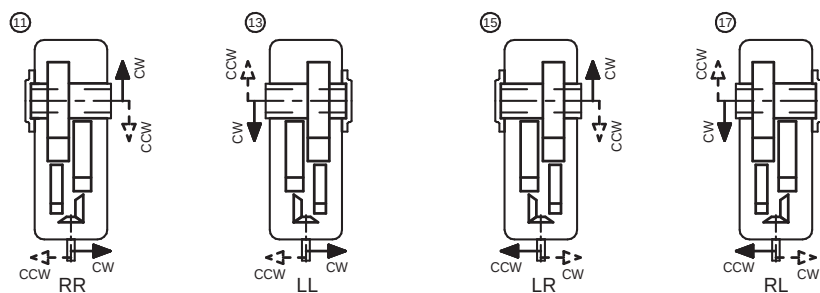
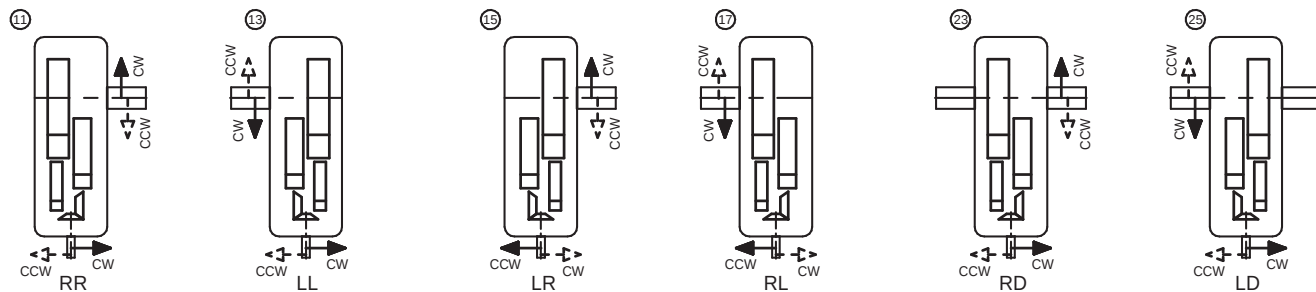
- Backstop Position
- Output Shaft Position
- Bevel Gear Position

SERIES E

SHAFT ARRANGEMENT - BEVEL HELICAL GEAR UNIT

TYPE B4/K4 QUADRUPLE STAGE

E

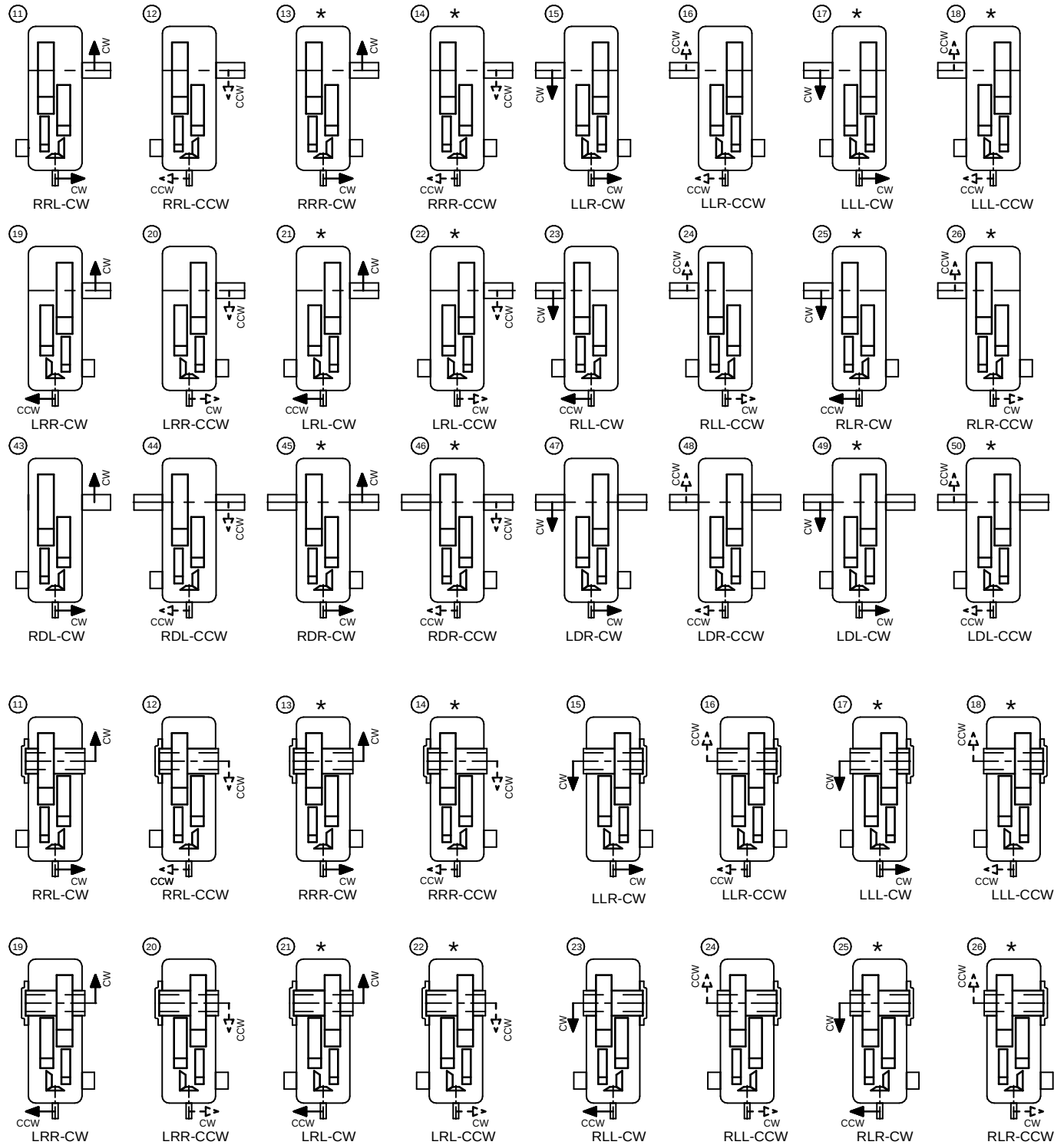


SERIES E

SHAFT ARRANGEMENT - HOLD BACK - BEVEL HELICAL GEAR UNIT

TYPE B4/K4 QUADRUPLE STAGE

E



LRR

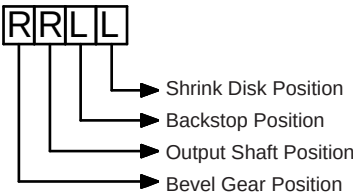
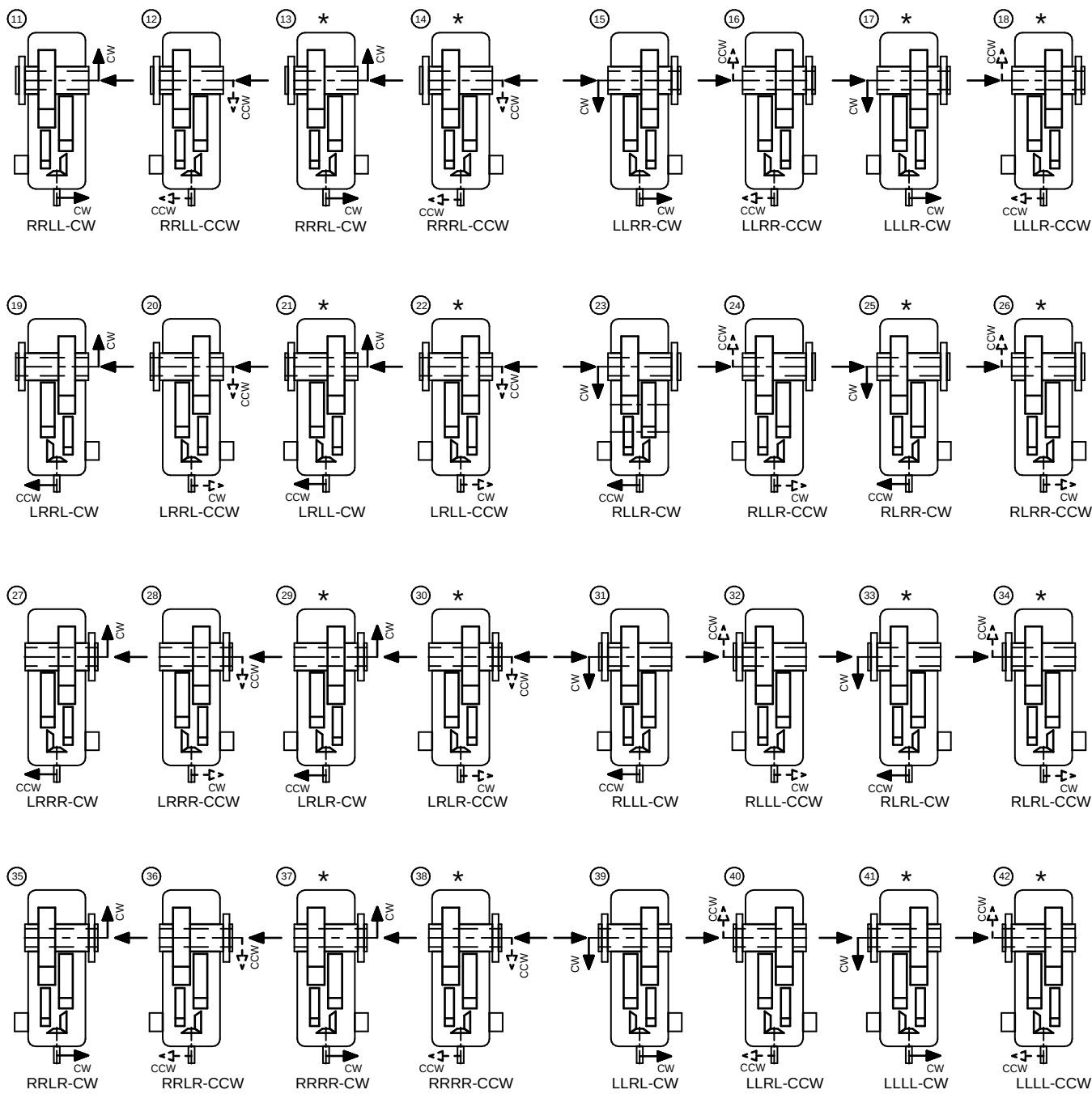
- Backstop Position
- Output Shaft Position
- Bevel Gear Position

SERIES E

SHAFT ARRANGEMENT - HOLD BACK
- BEVEL HELICAL GEAR UNIT

TYPE B4/K4
QUADRUPLE STAGE

E

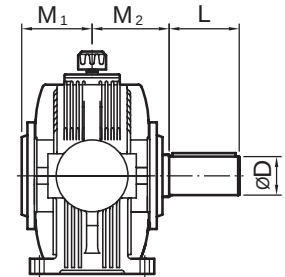


SERIES E

OUTPUT SHAFT OPTIONS

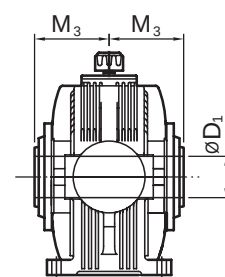
Size	Solid Output Shaft			
	D	L	M ₁	M ₂
11	32	55	93.5	105
13	45	95	106	115
14	48	95	106	125
15	55	95	127	135
16	60	130	132.5	145
17	70	135	141	150
18	80	160	158	170

Solid Output Shaft - (N)



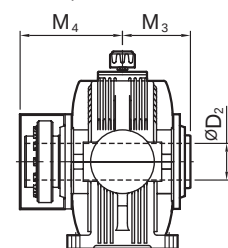
Size	Hollow Shaft Key	
	D ₁	M ₃
11	35	105
13	50	115
14	55	125
15	60	135
16	70	145
17	75	150
18	90	170

Hollow Output Shaft With Keyway - (K)



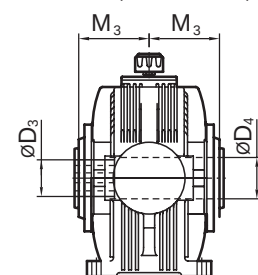
Size	Hollow Shaft (Shrink Disk)		
	D ₂	M ₃	M ₄
14	60	120	200
15	65	135	215
16	75	145	235
17	80	150	250
18	95	170	280

Hollow Output Shaft With Shrink Disk - (D)



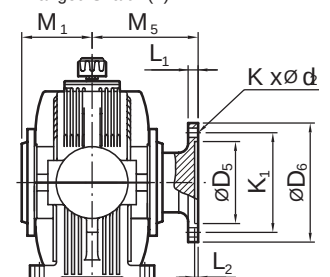
Size	Hollow Shaft (Spline)		
	D ₃	D ₄	M ₃
11	Dimension on Request		
13			
14			
15			
16			
17			
18			

Hollow Output Shaft With Spline - (S)



Size	Flanged Shaft							
	D ₅	D ₆	K ₁	K x Ø d ₂	L ₁	L ₂	M ₁	M ₅
11	Dimension on Request							
13								
14								
15								
16								
17								
18								

Flanged Shaft - (F)



Modification of dimensions reserved.

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

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

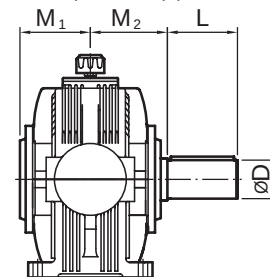
Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50m6.

OUTPUT SHAFT OPTIONS

E

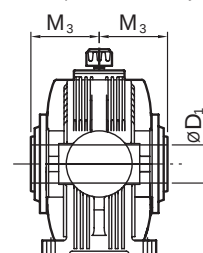
Size	Solid Output Shaft			
	D	L	M ₁	M ₂
19	90	165	170.5	180
20	100	200	176	200
21	110	200	210	220
22	120	210	220	230
23	140	250	234	260
24	160	290	282.5	295
25	170	300	292.5	305
26	190	350	305.5	345

Solid Output Shaft - (N)



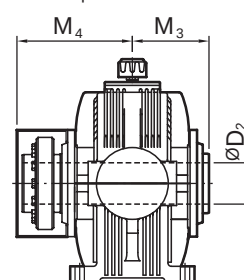
Size	Hollow Shaft Key	
	D ₁	M ₃
19	105	180
20	110	190
21	120	220

Hollow Output Shaft With Keyway - (K)



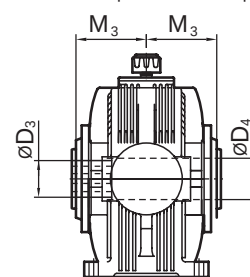
Size	Hollow Shaft (Shrink Disk)		
	D ₂	M ₃	M ₄
19	105	180	300
20	115	190	315
21	125	220	360
22	140	230	395
23	160	260	445
24	180	295	485
25	200	305	515
26	220	345	575

Hollow Output Shaft With Shrink Disk - (D)



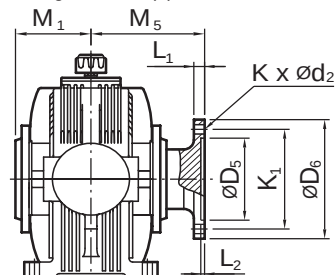
Size	Hollow Shaft (Spline)		
	D ₃	D ₄	M ₃
19	Dimension on Request		
20			
21			
22			
23			
24			
25			
26			

Hollow Output Shaft With Spline - (S)



Size	Flanged Shaft						
	D ₅	D ₆	K ₁	K x Ø d ₂	L ₁	L ₂	M ₁
19	Dimension on Request						
20							
21							
22							
23							
24							
25							
26							

Flanged Shaft - (F)



Modification of dimensions reserved.

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

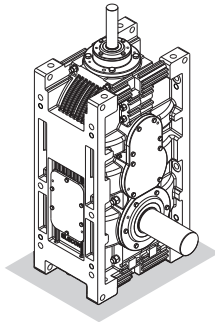
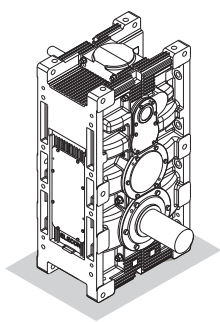
Shaft centering according to DIN 332, shape DS (with thread)

Tolerance field for shaft ends ISO fit, up to Ø50 k6; over Ø50 m6.

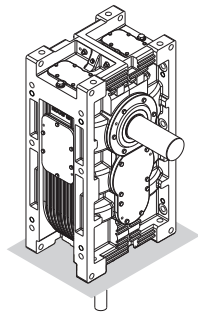
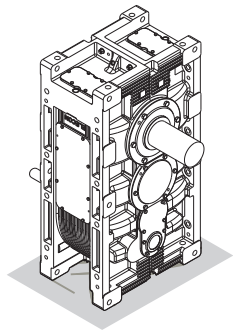
ALTERNATIVE CONFIGURATIONS

Series e also offers the following alternative configurations. Please contact our application engineers for details.

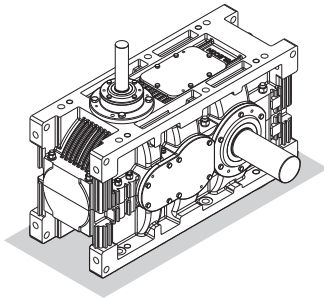
E



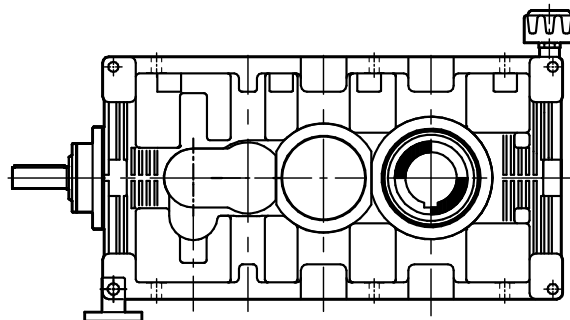
Over Driven Applications



Under Driven Applications



**Mounting Positions and Surfaces for
Compact (Bevel-Helical) Gear Unit
Version S**



**Torque Arm Mounting arrangement for
Version S**

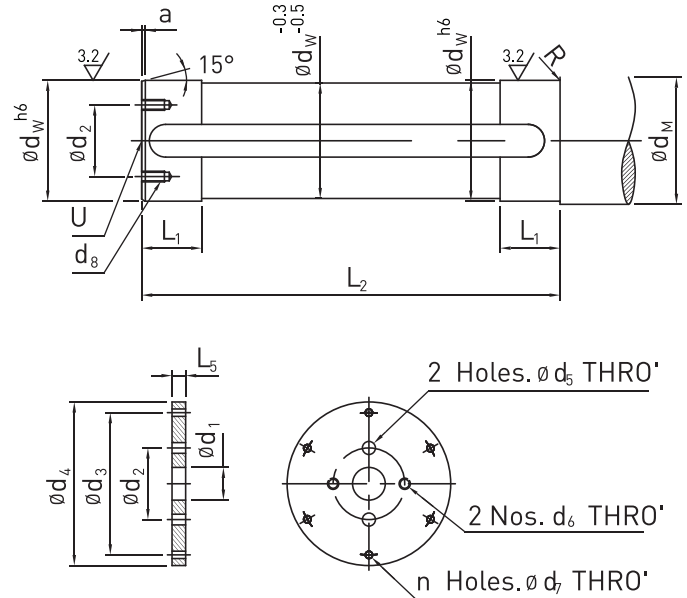
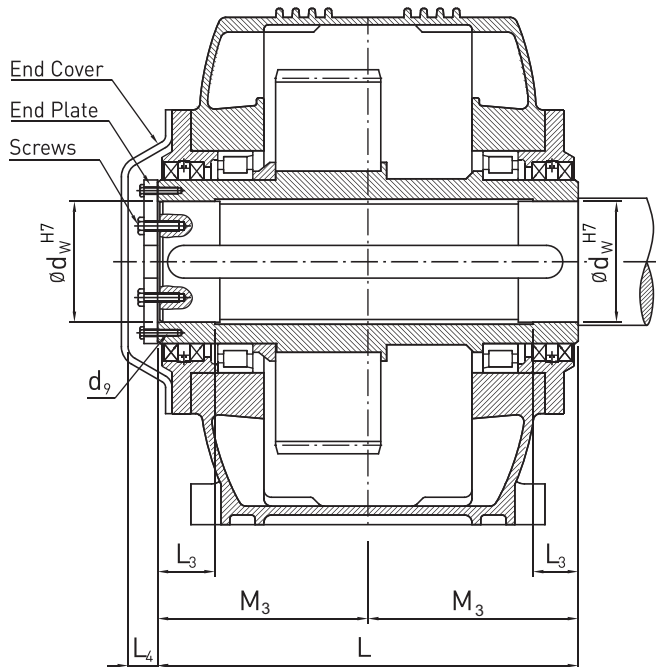
H4 /H3 / B4

SERIES E

HELICAL / BEVEL HELICAL GEAR UNITS

HOLLOW OUTPUT SHAFT DESIGN WITH FITTED KEY

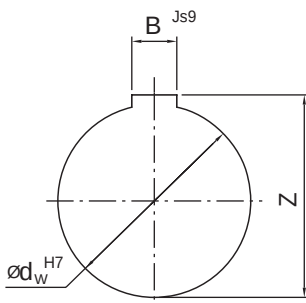
E



End Plate (Size 13 onwards)

Size	Hollow Shaft						Driven Machine Shaft									End Plate											
	d _w	L	M ₃	L ₃	L ₄	d ₉	d _w	d _M	d ₂	d ₈	L ₁	L ₂	a	R	U	d ₁	d ₂	d ₃	d ₄	d ₅	d ₆	d ₇	n	L ₅			
11	35	210	105	30	23	M5 x 9	35	55	-	-	35	207	3	2.5	M10	-	-	-	-	-	-	-	-	-			
13	50	230	115	45	23	M5 x 9	50	70	35	M8 x 16	50	227	3	2.5	M16	18	35	60	69.5	9	M8	5.5	4	8			
14	55	240	120	50	25	M6 x 12	55	75	40	M8 x 16	55	237	4	2.5	M20	22	40	67.5	79	9	M10	6.6	4	8			
15	60	270	135	55	25	M6 x 12	60	80	45	M10 x 20	60	267	4	2.5	M20	22	45	72.5	89	11	M10	6.6	6	8			
16	70	290	145	65	25	M6 x 12	70	90	50	M10 x 20	70	287	4	2.5	M20	22	50	85	99	11	M10	6.6	6	8			
17	75	300	150	70	30	M6 x 12	75	95	55	M10 x 20	75	297	5	4	M20	22	55	90	109	11	M10	6.6	6	10			
18	90	340	170	85	30	M8 x 15	90	110	65	M10 x20	90	337	5	4	M24	26	65	110	129	11	M10	9	4	10			
19	105	360	180	100	32	M8 x 15	105	125	70	M12 x 25	105	357	5	4	M24	26	70	120	139	14	M12	9	4	10			
20	110	380	190	110	32	M10 x 17	110	135	75	M12 x 25	115	377	5	4	M24	26	75	125	159	14	M12	11	4	12			
21	120	440	220	120	32	M10 x 17	120	150	80	M12 x 25	130	437	6	6	M24	26	80	140	169	14	M12	11	4	12			

Hollow Shaft Bore Details



d_w	B	Z	tol. on Z
35	10	38.3	0.2
50	14	53.8	
55	16	59.3	
60	18	64.4	
70	20	74.9	
75	20	79.9	
90	25	95.4	
105	28	111.4	
110	28	116.4	
120	32	127.4	

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

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

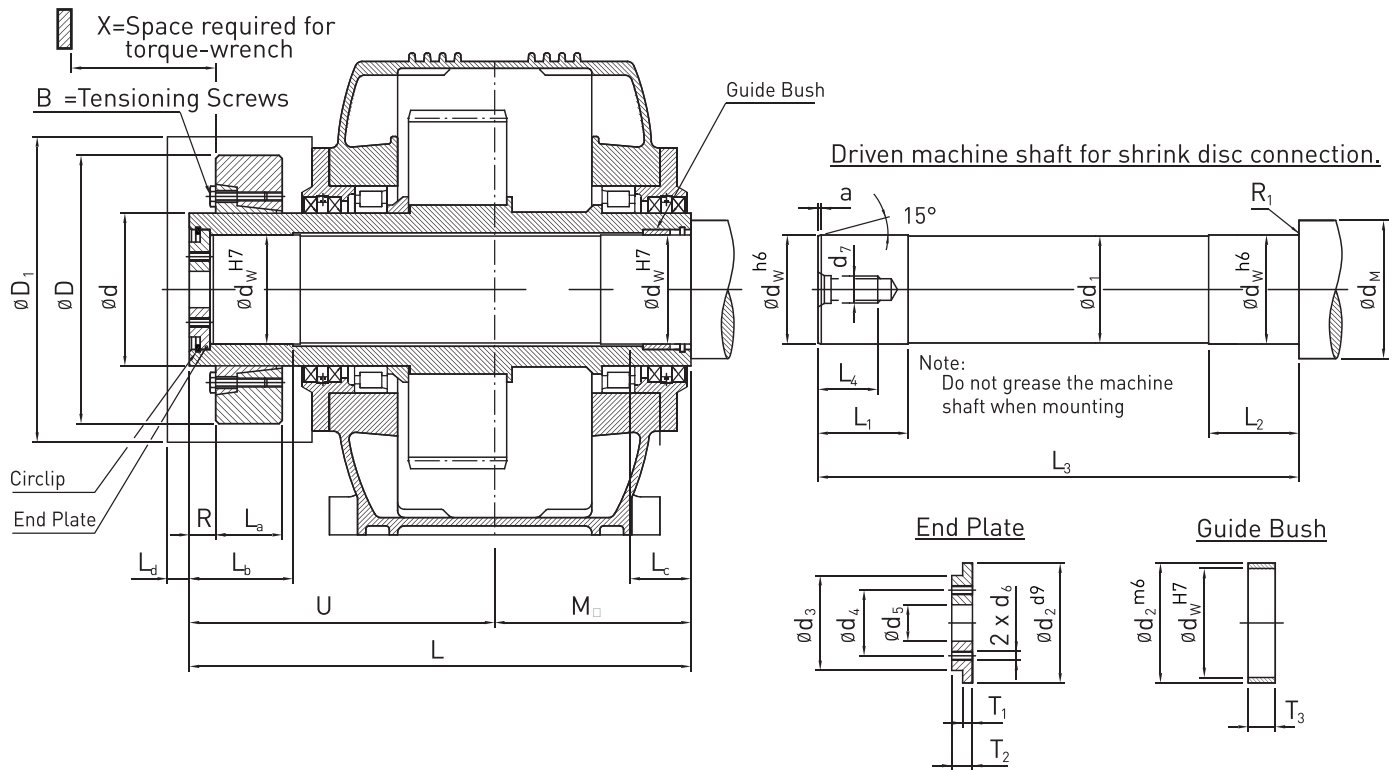
SERIES E

HELICAL / BEVEL HELICAL GEAR UNITS

HOLLOW OUTPUT SHAFT DESIGN WITH SHRINK DISK

Standard Shaft Mounting Position

E



Size	Hollow Shaft							Shrink Disk									
	d _w	L	L _b	L _c	U	M ₃	R	Type	D	d	D ₁ (Approx)	L _a	L _d	M ₂ (da Nm)	B	M _a (da Nm)	Ⓛ lbs
14	60	300	50	30	180	120	17	80 - 60	141	80	175	31	20	319	M10	5.8	2.3
15	65	330	55	35	195	135	17	90 - 65	155	90	190	38	20	540	M10	5.8	3.2
16	75	360	65	40	215	145	20	100 - 75	170	100	215	43.5	20	720	M10	5.8	4.3
17	80	380	80	41	230	150	26	110 - 80	185	110	225	49	20	1000	M12	10	5.8
18	95	430	85	44	260	170	27	125 - 95	215	125	260	53.5	20	1650	M12	10	8.7
19	105	460	95	49	280	180	32	140 - 105	230	140	270	58	20	2210	M14	16	10.3
20	115	485	100	49	295	190	33	155 - 115	263	155	305	63	20	2950	M14	16	15.2
21	125	555	120	68	335	220	35	165 - 125	290	165	335	68	25	4120	M16	24	21.5
22	140	600	135	68	370	230	35	180 - 140	320	180	365	85.5	25	6400	M16	24	32.7
23	160	680	155	73	420	260	37	220 - 160	370	220	415	105	25	10300	M20	47	53
24	180	755	160	83	460	295	38	240 - 180	405	240	460	109	25	14000	M20	47	66
25	200	795	180	88	490	305	46	260 - 200	430	260	495	120	25	18400	M20	47	82
26	220	895	190	103	550	345	48	280 - 220	460	280	530	135	25	24000	M20	47	103

Size	Driven Machine Shaft										End Plate								Guide Bush			
	d _w	d ₁	d _m (min)	R ₁	L ₁	L ₂	L ₃	L ₄	d ₇	a	d ₂	d ₃	d ₄	d ₅	d ₆	T ₁	T ₂	d _w	d ₂	T ₃	Circlip	
14	60	59.5	80	1.5	45	65	286	42	M20	4	70	50	35	22	M6	5	13	60	70	17	70 x 2.5	
15	65	64.5	85	1.5	50	70	316	42	M20	4	75	55	40	22	M8	5	13	65	75	22	75 x 2.5	
16	75	74.5	95	1.5	55	75	342	42	M20	4	85	65	45	22	M8	7	17	75	85	23	85 x 3	
17	80	79.5	100	1.6	70	90	362	42	M20	5	90	70	50	22	M8	7	17	80	90	24	90 x 3	
18	95	94.5	120	1.6	70	90	408	50	M24	5	105	80	55	26	M10	8	20	95	105	24	105 x 4	
19	105	104.5	130	1.6	80	100	438	50	M24	5	120	90	60	26	M10	8	20	105	120	29	120 x 4	
20	115	114.5	140	1.6	85	105	463	50	M24	5	130	100	65	26	M10	8	20	115	130	29	130 x 4	
21	125	124.5	160	2.5	85	110	530	50	M24	6	140	105	65	26	M12	10	23	125	140	45	140 x 4	
22	140	139.5	170	2.5	105	130	575	60	M30	6	155	115	75	33	M12	10	23	140	155	45	155 x 4	
23	160	159.5	190	2.5	130	155	655	60	M30	6	175	120	80	33	M12	10	23	160	175	50	175 x 4	
24	180	179.5	210	2.5	130	160	725	60	M30	6	195	125	85	33	M16	12	28	180	195	55	195 x 4	
25	200	199.5	240	4	150	180	765	60	M30	8	220	140	95	33	M16	12	28	200	220	60	220 x 5	
26	220	219.5	260	4	165	195	865	80	M36	8	240	160	110	39	M20	12	28	220	240	75	240 x 5	

M_a = Required tightening torque

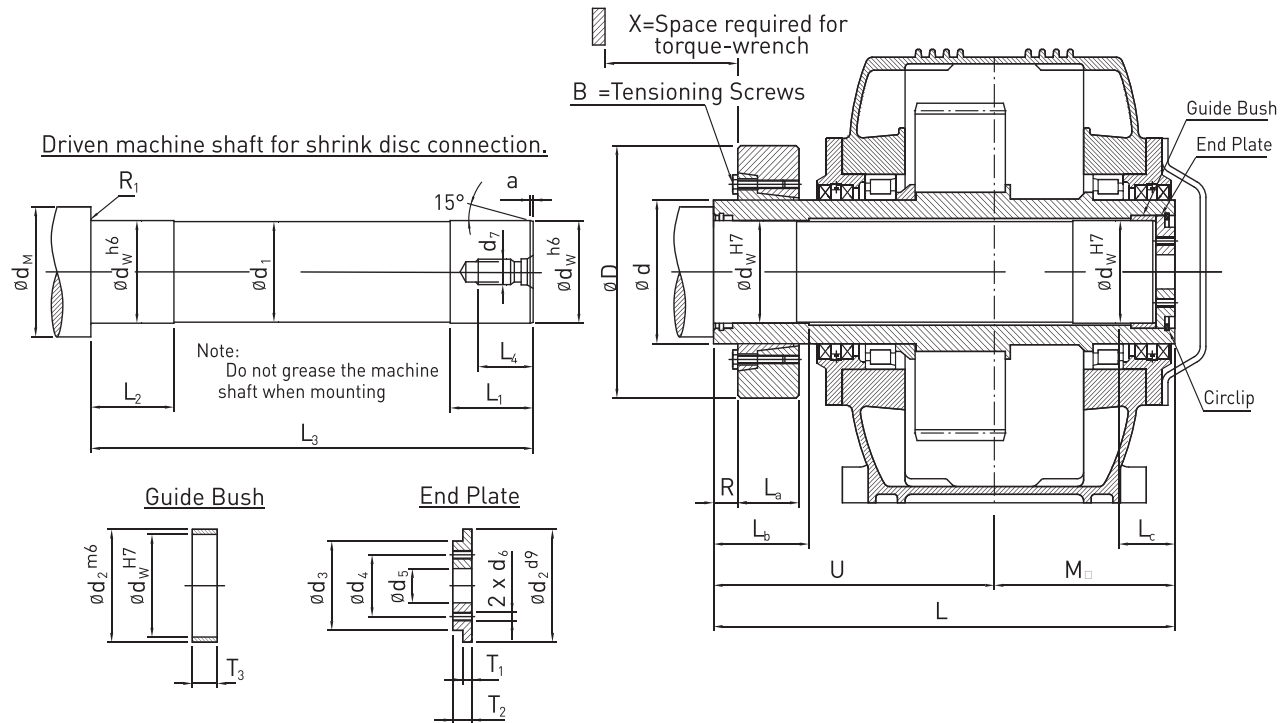
M_t = maximum torque transmitted by shrink Disk

SERIES E

HELICAL / BEVEL HELICAL GEAR UNITS

HOLLOW OUTPUT SHAFT DESIGN WITH SHRINK DISK

Alternate Shaft Mounting Option



Size	Hollow Shaft							Shrink Disk									
	d _w	L	L _b	L _c	U	M ₃	R	Type	D	d	D ₁ (Approx)	L _a	L _d	M ₂ (da Nm)	B	M _a (da Nm)	
14	60	300	50	30	180	120	17	80 - 60	141	80	175	31	20	319	M10	5.8	2.3
15	65	330	55	35	195	135	17	90 - 65	155	90	190	38	20	540	M10	5.8	3.2
16	75	360	65	40	215	145	20	100 - 75	170	100	215	43.5	20	720	M10	5.8	4.3
17	80	380	80	41	230	150	26	110 - 80	185	110	225	49	20	1000	M12	10	5.8
18	95	430	85	44	260	170	27	125 - 95	215	125	260	53.5	20	1650	M12	10	8.7
19	105	460	95	49	280	180	32	140 - 105	230	140	270	58	20	2210	M14	16	10.3
20	115	485	100	49	295	190	33	155 - 115	263	155	305	63	20	2950	M14	16	15.2
21	125	555	120	68	335	220	35	165 - 125	290	165	335	68	25	4120	M16	24	21.5
22	140	600	135	68	370	230	35	180 - 140	320	180	365	85.5	25	6400	M16	24	32.7
23	160	680	155	73	420	260	37	220 - 160	370	220	415	105	25	10300	M20	47	53
24	180	755	160	83	460	295	38	240 - 180	405	240	460	109	25	14000	M20	47	66
25	200	795	180	88	490	305	46	260 - 200	430	260	495	120	25	18400	M20	47	82
26	220	895	190	103	550	345	48	280 - 220	460	280	530	135	25	24000	M20	47	103

Size	Driven Machine Shaft										End Plate								Guide Bush			
	d _w	d ₁	d _m (min)	R ₁	L ₁	L ₂	L ₃	L ₄	d ₇	a	d ₂	d ₃	d ₄	d ₅	d ₆	T ₁	T ₂	d _w	d ₂	T ₃	Circlip	
14	60	59.5	80	1.5	45	65	286	42	M20	4	70	65	35	22	M6	5	13	60	65	17	65 x 2.5	
15	65	64.5	85	1.5	50	70	316	42	M20	4	75	70	40	22	M8	5	13	65	70	22	70 x 2.5	
16	75	74.5	95	1.5	55	75	342	42	M20	4	85	80	45	22	M8	7	17	75	80	23	80 x 2.5	
17	80	79.5	100	1.6	70	90	362	42	M20	5	90	85	50	22	M8	7	17	80	85	24	85 x 3	
18	95	94.5	120	1.6	70	90	408	50	M24	5	105	100	55	26	M10	8	20	95	100	24	100 x 3	
19	105	104.5	130	1.6	80	100	438	50	M24	5	120	110	60	26	M10	8	20	105	110	29	110 x 4	
20	115	114.5	140	1.6	85	105	463	50	M24	5	130	120	65	26	M10	8	20	115	120	29	120 x 4	
21	125	124.5	160	2.5	85	110	530	50	M24	6	140	130	65	26	M12	10	23	125	130	45	130 x 4	
22	140	139.5	170	2.5	105	130	575	60	M30	6	155	135	75	33	M12	10	23	140	145	45	145 x 4	
23	160	159.5	190	2.5	130	155	655	60	M30	6	175	165	80	33	M12	10	23	160	165	50	165 x 4	
24	180	179.5	210	2.5	130	160	725	60	M30	6	195	185	85	33	M16	12	28	180	185	55	185 x 4	
25	200	199.5	240	4	150	180	765	60	M30	8	220	210	95	33	M16	12	28	200	210	60	210 x 4	
26	220	219.5	260	4	165	195	865	80	M36	8	225	225	110	39	M20	12	28	220	225	75	225 x 5	

M_a = Required tightening torque

M_t = maximum torque transmitted by shrink Disk

Maximum Permissible Overhung Loads

When a sprocket or gear etc. is mounted on the shaft, a calculation must be made to determine the overhung load and the results compared to the maximum permissible overhung loads tabulated. Overhung loads can be reduced by increasing the diameter of the sprocket or gear, etc. If the maximum permissible overhung load is exceeded, the sprocket or gear, etc. should be mounted on a separate shaft, flexibly coupled and supported in its own bearings.

The values tabulated are for the most unfavourable direction with the unit transmitting full rated power and with the load P applied midway along the shaft extension. Hence they can sometimes be increased for a more favourable direction of rotation, or if the power transmitted is less than the rated capacity of the gear unit, or if the load is applied nearer to the gear unit case. Refer to our Application Engineers for further details. In any event, the sprocket, gear etc. should be positioned as close as possible to the gear unit case in order to reduce bearing loads and shaft stresses, and to prolong life.

All units will accept 100% momentary overload on stated capacities.

Overhung load (kN)

$$P = \frac{\text{kW} \times 9,500 \times K}{n_2 \times R}$$

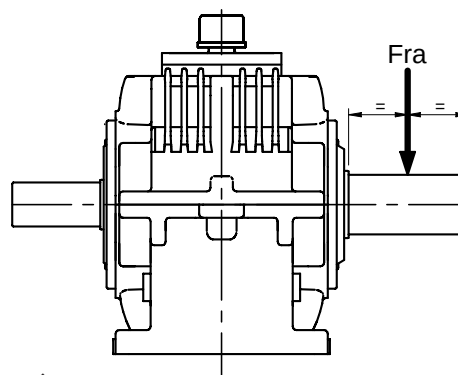
where

- P = equivalent overhung load (kN)
 kW = power transmitted by the shaft (kW)
 n₂ = speed of shaft (rpm)
 R = pitch radius of sprocket, etc. (mm)
 K = factor

Overhung member

K (factor)

Chain sprocket	1.00
Spur or helical pinion	1.25
Vee belt sheave	1.50
Flat belt pulley	2.00

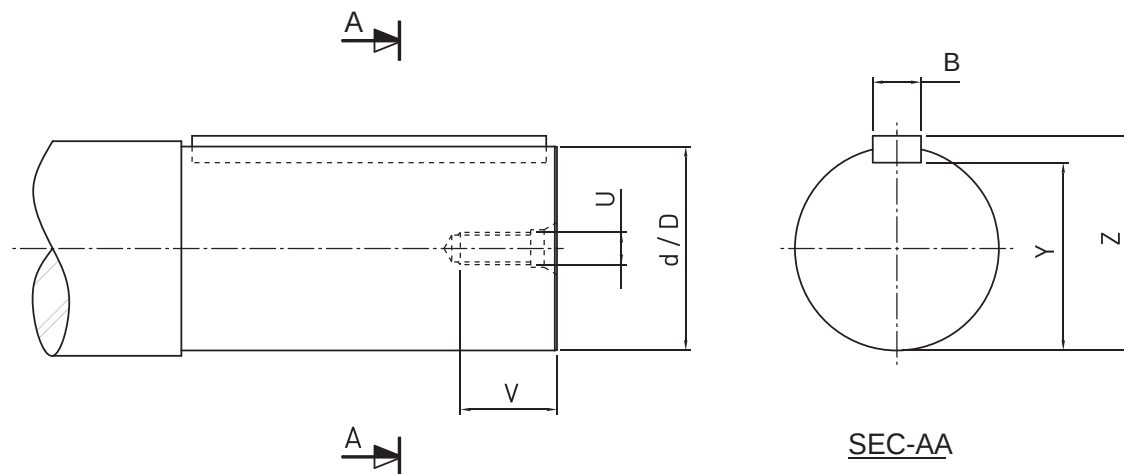


Maximum Permissible Output Shaft Overhung Load Fra (kN)

n ₂ (rpm)	Unit Size												
	14	15	16	17	18	19	20	21	22	23	24	25	26
315	8.0	10	11	11	10	15	19	22	21	18	20	30	27
260	6.1	11	12	13	12	17	22	25	23	20	24	36	33
180	7	13	14	15	13	22	27	32	30	22	34	48	47
160	8	13	15	16	14	24	29	34	32	24	37	53	51
120	9	16	17	19	16	28	34	40	38	30	46	64	63
100	10	17	19	20	18	31	37	44	43	34	52	71	71
71	12	20	22	24	21	36	43	52	52	43	64	87	87
63	12	21	22	25	23	38	46	55	55	46	69	93	93
40	15	23	22	30	28	47	50	67	68	58	88	116	118
25	18	23	22	36	34	56	50	82	79	74	111	129	148
12	23	23	22	41	37	56	50	87	79	102	132	129	172
6	23	23	22	41	37	76	79	96	100	160	180	180	185

Maximum Permissible Axial Load

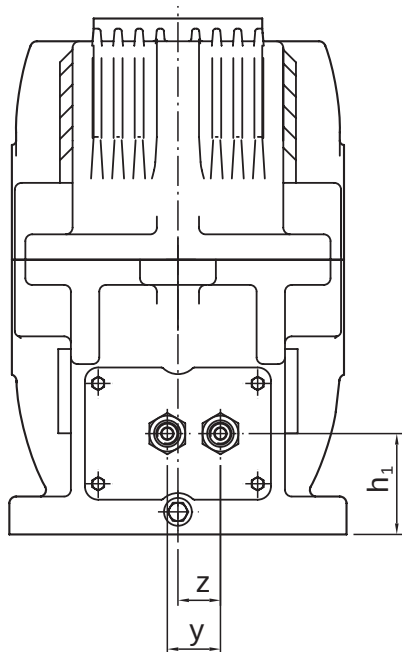
No check is required if the axial load does not exceed 50% of the permissible overhung load. When the axial load exceeds this value or there is a combination of axial and overhung loads please consult our Application Engineers.



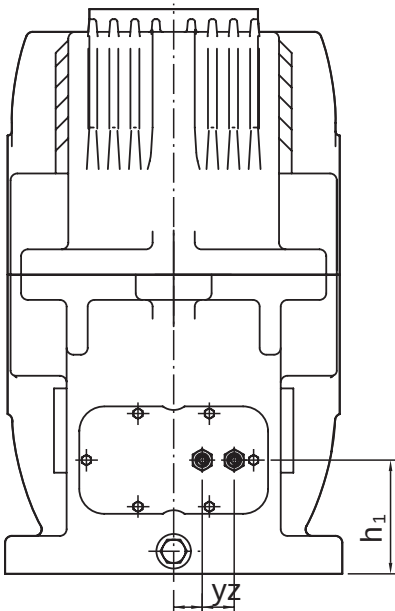
d / D	B	Y	Z	tol. on Z	U	V
19	6	15.5	21.5	-0.1	M6	16
20	6	16.5	22.5		M6	16
24	8	20	27		M8	19
25	8	21	28		M10	22
28	8	24	31		M10	22
30	8	26	33		M10	22
32	10	27	35		M12	28
35	10	30	38		M12	28
38	10	33	41		M12	28
40	12	35	43		M16	36
42	12	37	45	-0.2	M16	36
45	14	39.5	48.5		M16	36
48	14	42.5	51.5		M16	36
50	14	44.5	53.5		M16	36
52	16	46	56		M20	42
55	16	49	59		M20	42
58	16	52	62		M20	42
60	18	53	64		M20	42
65	18	58	69		M20	42
68	20	60.5	72.5		M20	42
70	20	62.5	74.5		M20	42
75	20	67.5	79.5		M20	42
80	22	71	85		M20	42
85	22	76	90		M20	42
90	25	81	95		M24	50
95	25	86	100		M24	50
100	28	90	106		M24	50
105	28	95	111		M24	50
110	28	100	116		M24	50
115	32	104	122	-0.3	M24	50
120	32	109	127		M24	50
140	36	128	148		M30	60
160	40	147	169		M30	60
170	40	157	179		M36	80
190	45	175	200		M36	80

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

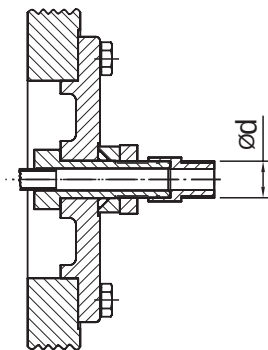
B	tol. field	tol
3-6	h9	0 -0.030
8-10		0 -0.036
12-18		0 -0.043
20-28		0 -0.052
32-50		0 -0.062



Size 17



Size 18 and above



Cooling Coil Connections

Size	S1			
	d	H ₁ ²⁾	y	z
11	Dimension on Request			
13				
15				
16				
17				
18				
20				
21				
22				
23				
24				
25				
26				

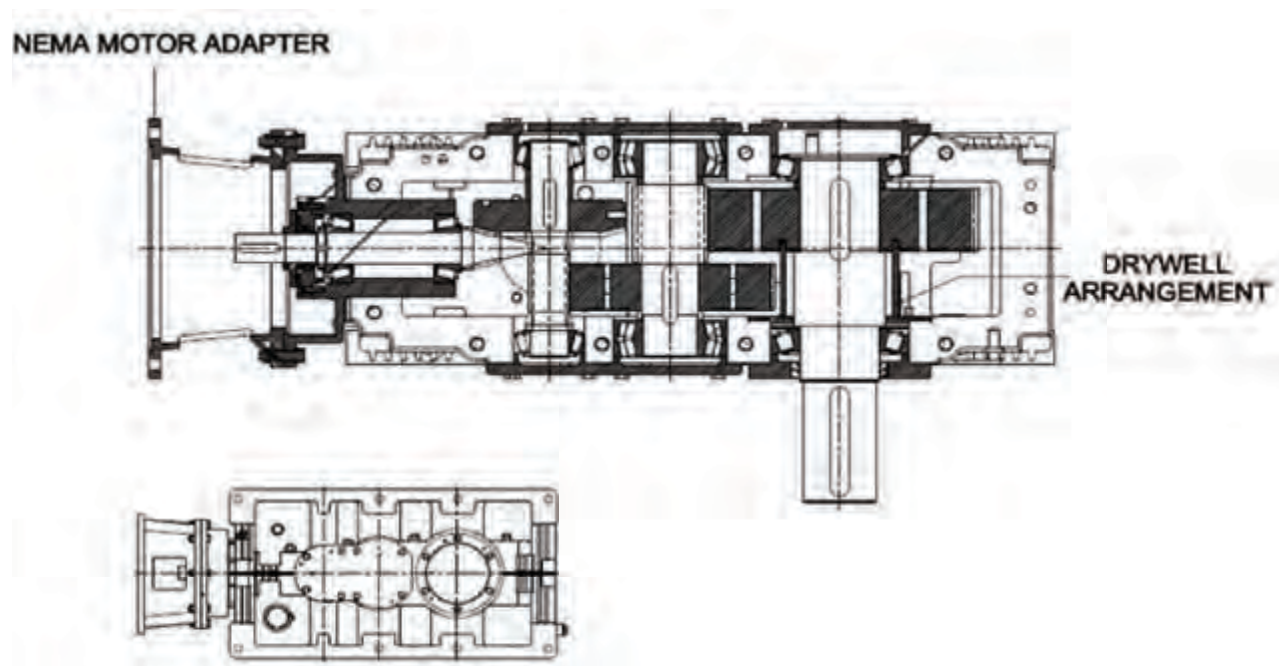
Size	S2, S3, S4, K2, K3 & K4			
	d	H ₁ ²⁾	y	z
11	Dimension on Request			
13				
14				
15				
16				
17	3/8"	75	40	32
18	3/8"	88	40	28
19	3/8"	88	40	28
20	3/8"	88	40	28
21	3/8"	110	40	40
22	3/8"	110	40	40
23	3/8"	110	40	40
24	1/2"	125	60	53
25	1/2"	125	60	53
26	1/2"	125	60	53

SERIES E

E

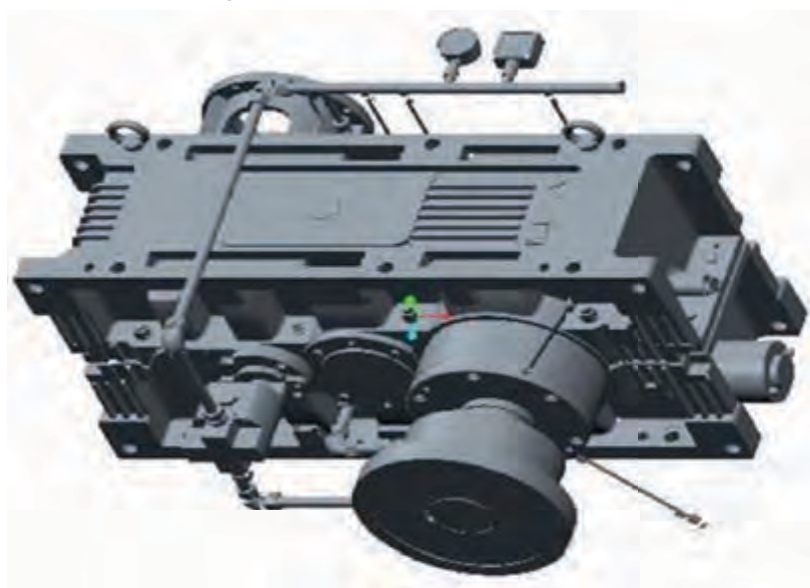
Radicon vertical reducer with motor adapter and drywell arrangement for aerators and mixtures

Bevel helical unit – Right angle shaft arrangement



Radicon vertical reducer with motor adapter, Shaft driven pump, Drop bearing housing, RTDs, Couplings & drywell arrangement for aerators and mixtures

Helical unit – Parallel shaft arrangement







CONTACT US

AUSTRALIA

**Radicon Transmission
(Australia) PTY Ltd**
Australia

Tel: +61 488 054 028

EUROPE

Benzler TBA BV
Jachthavenweg 2
NL-5928 NT Venlo

Austria
Tel: +43 7 229 618 91
Fax: +43 7 229 618 84

France
Tel: +33 687 718 711
Fax: +31 77 324 59 01

Germany
Tel: 0800 350 40 00
Fax: 0800 350 40 01

Italy
Tel: +39 02 824 3511

Netherlands & the rest of Europe
Tel: +31 77 324 59 00
Fax: +31 77 324 59 01

DENMARK

Benzler Transmission A/S
Fuglebævej 3D
DK-2770 Kastrup,
Denmark

Tel: +45 36 34 03 00
Fax: +45 36 77 02 42

FINLAND

Oy Benzler AB
Vanha Talvitie 3C
FI-00580 Helsinki,
Finland

Tel: +358 9 340 1716
Fax: +358 10 296 2072

INDIA

**Elecon. Engineering
Company Ltd.**

Anand Sojitra Road
Vallabh Vidyanagar
388120 Gujarat
India

Tel: +91 2692 236513
Fax: +91 2692 227484

SWEDEN & NORWAY

AB Benzlers
Box 922 (Landskronavägen 1)
251 09 Helsingborg
Sweden

Tel: +46 42 18 68 00
Fax: +46 42 21 88 03

THAILAND

**Radicon Transmission
(Thailand) Ltd**
700/43 Moo 6
Amata Nakorn Industrial Estate
Tumbol Klongtumru
Muang,
Chonburi
20000
Thailand

Tel: +66 3845 9044
Fax: +66 3821 3655

UNITED KINGDOM

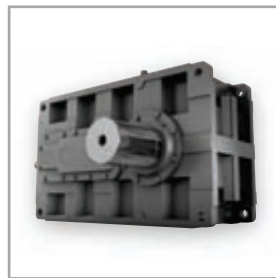
Radicon Transmission UK Ltd
Unit J3
Lowfields Business Park,
Lowfields Way, Elland
West Yorkshire, HX5 9DA

Tel: +44 (0) 1484 465 800
Fax: +44 (0) 1484 465 801

USA

Radicon USA Transmission Ltd
1599 Lunt Avenue
Elk Grove Village
Chicago
Illinois
60007
USA

Tel: +1 847 593 9910
Fax: +1 847 593 9950



radicon 

Radicon USA
1599 Lunt Avenue, Elk Grove Village, IL 60007
Phone: +1 847 593 9910
Email: SalesUSA@radicon.com
www.radicon.com