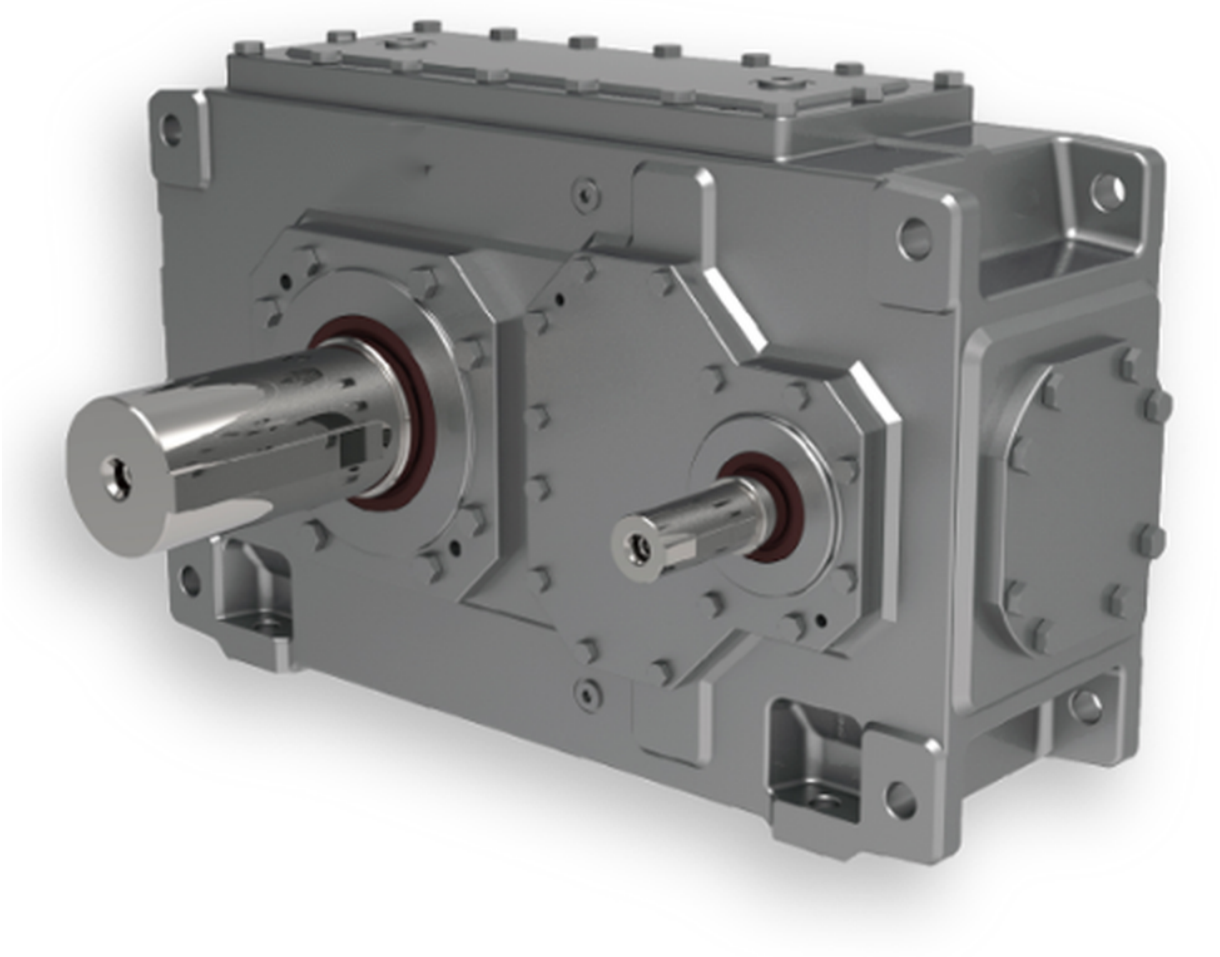
HB Series

Industrial Gear Units | Product Catalogue

HYDRAPRO
PROFESSIONALS IN WATER TREATMENT



Parallel Shaft (H) and Right-Angle (B) Gear Units

21 type sizes (04 to 24) | 6.9 to 725 kNm nominal output torque

2, 3 and 4-stage designs | Ratios from 5 to 450

Solid shaft, hollow shaft with key, or hollow shaft with locking disc

Horizontal and vertical mounting | Up to 98.5% efficiency per stage

HYDRAPRO
PROFESSIONALS IN WATER TREATMENT

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1 Product Overview

1.1 Product Features

Refer to foreign similar products, HB series industrial gearbox is a new generation of standard industrial gearbox that developing after 15 years, four generations of product manufacturing technology improvement and more than 100,000 units of installed experience on the basis of iterative research.

The new generation of HB series industrial gear box has excellent carrying capacity, standard interface size, modular design and manufacturing, and can be exchanged with imported brand products in the same size, torque and power capacity, good stability and consistency, and 100% localization. The main product characteristics are as follows:

Overall benchmarking:

- → Helical gear bearing capacity calculation standards in line with GB/T3480, DIN3990 and ISO6336;
- → The bearing capacity calculation of bevel gear conforms to DIN3991 and ISO10300;
- → The transmission power and torque capacity are fully upgraded to meet the standard;
- → There is no fuzzy reliability coefficient in the selection.

Product verification:

The following reliability of the latestHB products has been verified by the full load fatigue test under the strict nominal torque capacity of various varieties.

- → The effectiveness of gear bearing capacity calculation;
- → High quality raw materials for casting and forgings;
- → The effectiveness of bearing selection and life calculation;
- → Manufacturing process capability and processing accuracy;
- → Assembly accuracy.

Abundant configuration:

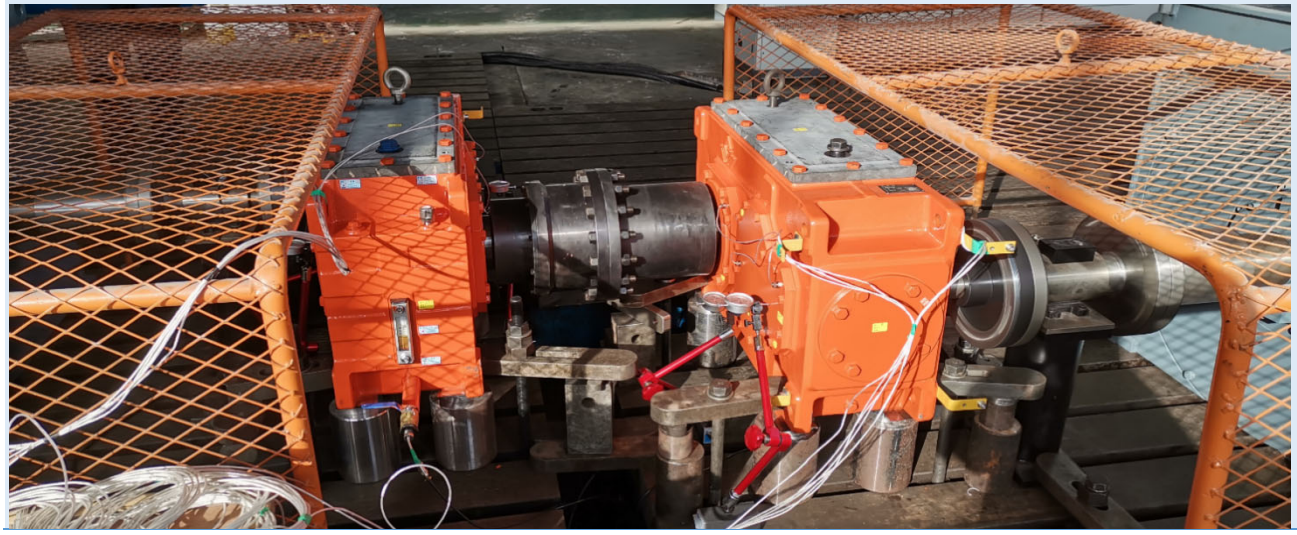
- → Highly modular, less parts types, to form a series of gearbox specifications;
- → Can be horizontal installation or vertical installation, but also according to user requirements for other forms of installation;
- → According to the working condition can choose all kinds of lubrication and cooling methods, such as fan, external circulation oil circuit, air cooler, etc.;
- → According to different working conditions can choose a more suitable sealing form;
- → Flexible import bearing and domestic bearing configuration free switching;
- → Casting box and welding box are free to switch.

System guarantee:

- → Forgings raw materials and heat treatment internal control system;
- → Mainstream brands of high-quality carburized steel forgings raw material supply chain;
- → Box size and form and position tolerances are high;
- → Bevel gear pair, bevel gear pair grinding precision are up to 6, while using low noise modification technology to ensure smooth mesh;
- → Modern logistics and storage system, effectively ensure the precision, accuracy and timeliness of parts;
- → Clean assembly process, ingenuity assembly operation and strict factory testing.

Operating characteristics:

- → Gear is designed for infinite life;
- → When the service coefficient S.F.>=1.4, bearing life >50,000h; When S.F.>=1.6, the whole bearing life is more than 100,000h;
- → The noise performance is excellent, the frame number is less than 14 and below the model, <=85db; Other models are not more than 90db;
- → Excellent transmission efficiency, helical gear pair efficiency can reach 98.5%, bevel gear pair efficiency can reach 97.5%



1.2 Bearing characteristics

Type size	Torque level	H2..	H3..	H4..	B2..	B3..	B4..
	KNm	Nominal speed ratio iN					
04	6.9	7.1~22.4	*	*	5~11.2	12.5~80	*
05	11.6	7.1~22.4	22.4~90	*	5~11.2	12.5~80	80~315
06	15.5	9~28	28~112	*	6.3~14	16~90	100~400
07	21.7	7.1~22.4	22.4~90	100~355	5~11.2	12.5~80	80~315
08	27.5	9~28	28~112	125~450	6.3~14	16~90	100~400
09	36	7.1~22.4	22.4~90	100~355	5~11.2	12.5~80	80~315
10	45	9~28	28~112	125~450	6.3~14	16~90	100~400
11	63.5	7.1~22.4	22.4~90	100~355	5~11.2	12.5~80	80~315
12	78	9~28	28~112	125~450	6.3~14	16~90	100~400
13	93	7.1~22.4	22.4~90	100~355	*	12.5~80	80~315
14	115	9~28	28~112	125~450	*	16~90	100~400
15	153	6.3~20	22.4~80	100~315	*	12.5~71	80~280
16	173	7.1~22.4	22.4~90	100~355	*	12.5~80	80~315
17	200	6.3~20	22.4~80	100~315	*	12.5~71	80~280
18	240	7.1~22.4	22.4~90	100~355	*	12.5~80	80~315
19	300	7.1~22.4	22.4~90	100~355	*	*	80~315
20	345	8~25	25~100	112~400	*	*	90~355
21	420	9~22.4	22.4~90	100~355	*	*	80~315
22	470	10~25	25~100	112~400	*	*	90~355
23	640	11.2~18	22.4~71	100~280	*	*	80~250
24	725	12.5~20	22.4~80	100~315	*	*	80~280

Description: * represents the standard product is not defined, welcome to consult the engineering department for non-standard customization.

1.3 Symbol description

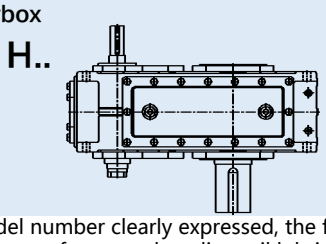
n_1	Input speed (rpm)	f_1	Working machine coefficient (Table 1)
n_2	Output speed (rpm)	f_2	Prime mover coefficient (Table 2)
i_N	Nominal transmission ratio	f_3	Peak torque coefficient (Table 3)
i	Actual transmission ratio	f_4	Ambient temperature coefficient (Table 4)
T_2	Working machine shaft torque (kN·m)	f_8	Gearbox oil supply coefficient (Table 5)
P_2	Working machine shaft power (kW)	T_{2A}	Machine peak torque, such as peak operating torque, starting torque or braking torque (KN·m)
P_1	Gear box input power or prime mover output power (kW)	P_{1A}	Peak power output of prime mover at peak torque of working machine (KW)
P_m	Prime mover (motor) Rated output power (kW)	P_G	Calculated value of allowable thermal power capacity of gearbox (kW)
f_m	Prime mover (motor) selection magnification factor	P_{GA}	Thermal power capacity of the gearbox (without heat dissipation measures)
T_{2N}	Nominal output torque of the gearbox (kN·m)	P_{GB}	The thermal power capacity of the gearbox with a high speed shaft cooling fan at a certain synchronous speed
P_{2N}	Rated output power of the gearbox (kW)	S.F.	Service factor
P_{1N}	Rated input power of the gearbox (kW)	FRZ2	Additional radial force on the output shaft

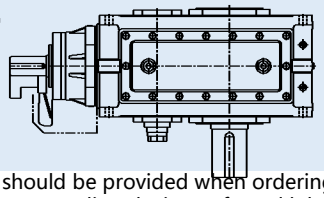
Note: The above symbols are for easy printing recognition, usually the subscript size and height are consistent with the symbol, such as f2, n1,T2N, PGA, etc

1.4 Type description

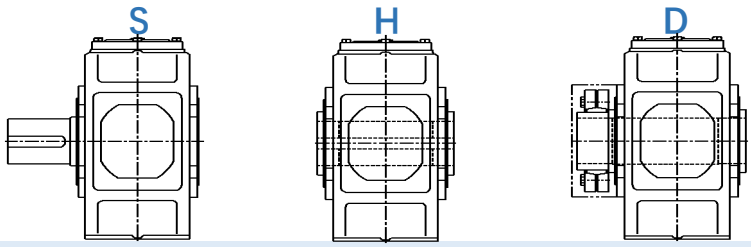
H	3	09	S	H	1	-	63	-	C	-	...

- **Transmission Type**
  - H parallel shaft gearbox
  - B Vertical shaft gearbox

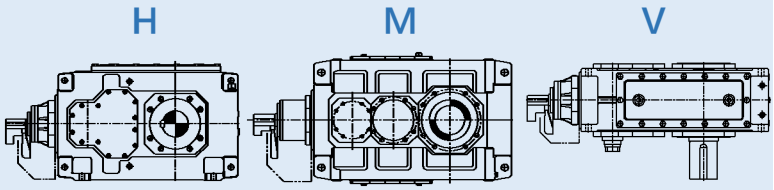




- Transmission Stage
  - 2, two-stage transmission
  - 3, three-stage transmission
  - 4, four-stage transmission
- Type size: 04, 05,... , 23, 24
- Output shaft Form
  - S Solid shaft
  - H Hollow shaft
  - D Hollow shaft with locking disc



- Install Ways
  - H Horizontal mount (output shaft horizontal installation)
  - M Horizontal installation without footing (output shaft horizontal installation)
  - V Vertical installation (output shaft vertical installation)



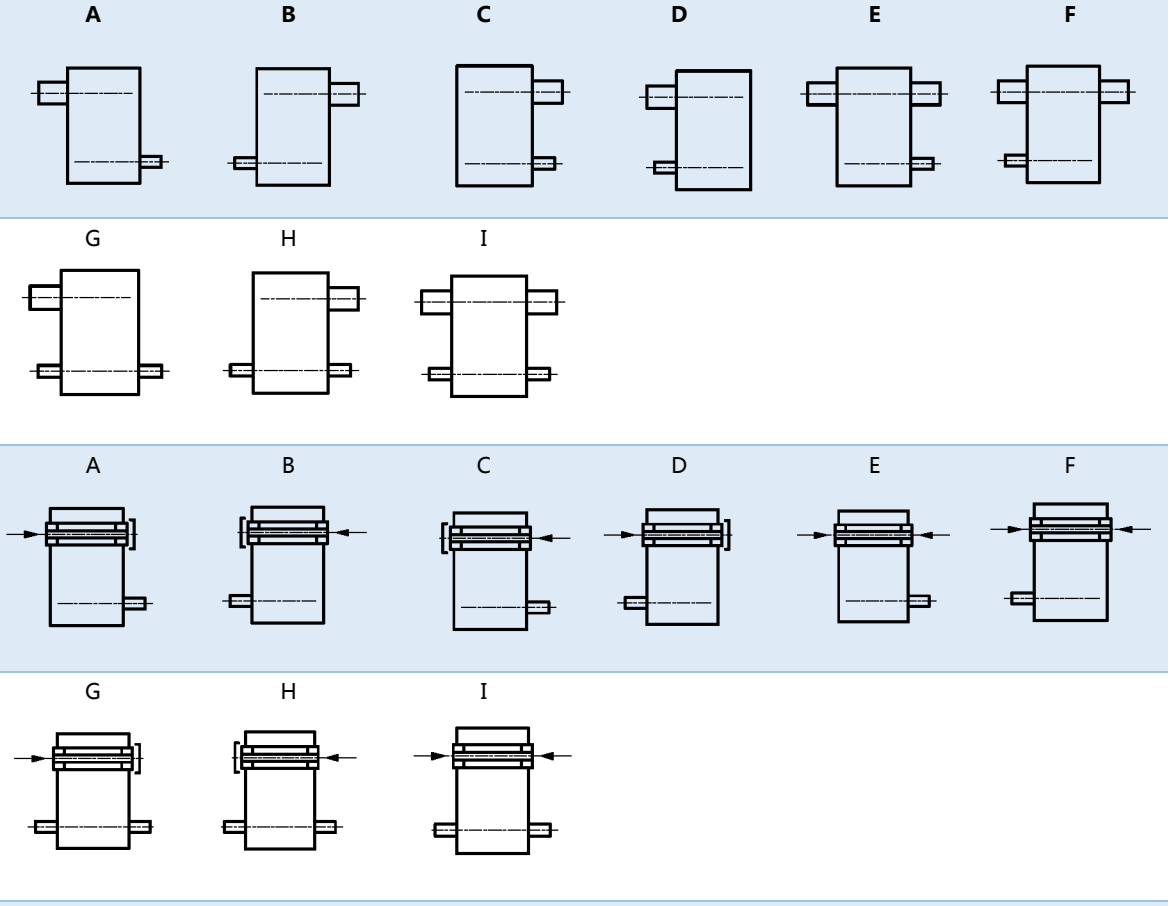
- Input shaft Shaft diameter dimension
  - 0 Standard Edition (default)
  - 1 Enhanced Edition
- Nominal ratio: 5.0, 5.6,... , 355, 400, 450
- Set Up Form: A, B, C,... , H, I See page 4 for details
- Attach Information

Description: In addition to the model number clearly expressed, the following information should be provided when ordering,

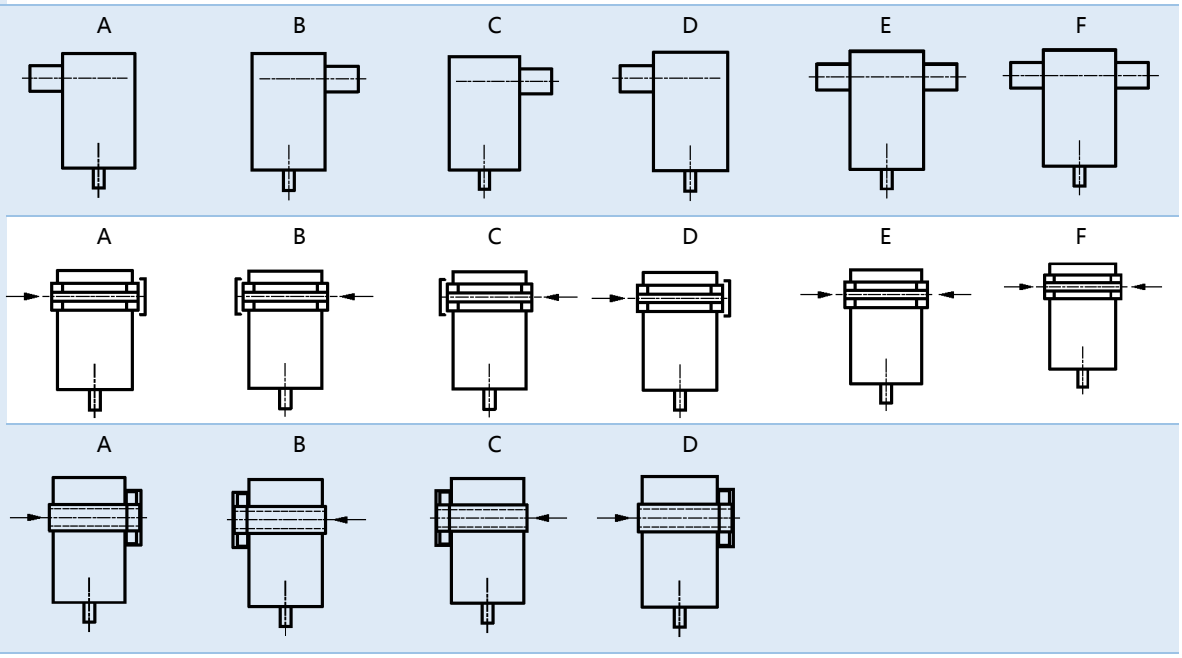
1) Gear box standard equipment for natural cooling, oil lubrication, if need to configure cooling device or forced lubrication should be indicated.
2) The backstop should be specified when configured, and the rotation direction of the output shaft (facing the output shaft) should be provided.
3) Input, output shaft elongation is not standard, or the installation form does not meet the standard (such as wall mounting or inclined installation) please provide sketch.
4) Welcome non-standard customization, please contact us.

1.5 Layout form

Parallel shaft gearbox



Vertical shaft gearbox



Description: → Arrow indicates the direction in which the machine drive shaft is inserted

1.6 Selection instructions

Steps		Calculate, check	Instructions
First, the primary Selection Procedure of			
1	Gear box Type	→[1] Parallel/vertical shaft type gearboxes: **H.. /B...**	According to the arrangement of the prime mover and the working machine shaft
2	Determine Ratio	→Prime mover RPM n1 →Machine speed n2 $\mathbf{i_N \approx i = n_1/n_2}$	Nominal speed ratio for a set of priority numbers, 5.0, 5.6,... , 11.2, 12.5,... 100,112,125,... 355,400...
3	Select the Type size by carrying capacity	→The Selection Procedure of coefficient f1 corresponding to the working condition →The Selection Procedure of coefficient f2 corresponding to the prime mover The frame number can be determined by the following three methods: a) Selection Procedure of according to torque →The torque T2 required by the working machine $\mathbf{T_{2N} \geq f_1 \times f_2 \times T_2}$ b) Selection Procedure of according to the working machine shaft power →Power P2 required by the working machine $\mathbf{T_{2N} \geq f_1 \times f_2 \times T_2 = f_1 \times f_2 \times 9.55 \times P_2 / n_2}$ c) Selection Procedure of according to prime mover power capacity →The input power required by the gearbox P1 →Nominal power Pm of prime mover →Selection Procedure of magnification factor fm of prime mover $\mathbf{P_{1N} \geq f_1 \times f_2 \times P_1 = f_1 \times f_2 \times P_m / f_m}$	Refer to Table f1, f2, see Table 1, Table 2 on the right Refer to table T2N Look up table P1N and note the corresponding synchronous RPM Pm is usually nominal, 90,110,132,160 KW,... fm is considered by motor Selection Procedure of, usually >=1.0 Note: When the error between the input speed and the synchronous speed is large, such as when the deceleration/growth of the pulley is input to the gearbox, the P1N value under the speed can be obtained by interpolation method.
4	Preliminary selection	Type +type size + transmission stages + nominal ratio	Return to step 3 if not satisfied, or please enquire
2. Check			
5	Peak torque capability/overload capability	→The peak torque of the machine T2A, or the peak output power of the prime mover P1A →Peak coefficient f3 Judging criteria: $\mathbf{T_{2N} \geq T_{2A} \times f_3}$ or $\mathbf{P_{1N} \geq P_{1A} \times f_3}$	Look up Table f3, see Table 3 on the right If not, return to step 3, or please enquire
6	Precise ratio	There is an error between the precise ratio and the nominal ratio, and whether it meets the requirements.	Check the table to confirm the exact speed ratio value
7	Thermal power capacity check and cooling method selection	Thermal power capacity and cooling configuration can be determined according to the following formula: a), choose natural cooling, default configuration→ $\mathbf{P_G = P_{GA} \times f_4 \times f_8}$ b), choose fan cooling, equip the gearbox shaft head with fan and cover→ $\mathbf{P_G = P_{GB} \times f_4 \times f_8}$ **The above** judgment condition PG $\mathbf{P_G > P_1}$ or $\mathbf{P_G \geq P_2}$ c), choose other forms of cooling, if you are not satisfied with the nominal thermal power capacity or have doubts, please contact us, our company has done a lot of engineering tests, can provide you with more energy saving, environmental protection, green solutions.→	Refer to Table f4,f8, see Table 4 on the right, Table 5 Refer to table PGA Look up table PGB and note the corresponding synchronous speed Description: The difference between P1 and P2 is the transmission efficiency of the gearbox. If not, return to step 3, or ask.
8	Additional force	Gear box output shaft can withstand a certain additional axial force and radial force, the size of the force mainly affects the bearing capacity and service life of the shafting bearing.	See page 53,
Configuration confirmation			
9	Installation method	HB gearbox can adapt to horizontal installation, vertical installation, footing or torque arm and other forms of installation	See page 4
10	Form of assembly	The assembly form of HB gearbox shaft extension can adapt to a variety of connection arrangements with working machines and prime movers	See page 6
11	Lubrication configuration	1) The default configuration is oil splash lubrication 2) Due to the structure and Selection Procedure of need to use shaft end pump or electric pump for forced lubrication	See outline reference dimensions
12	Other accessories	Whether the backstops, heaters, sensors, auxiliary transmission, etc meet your needs	Please contact us
13	Overall dimensions	Please check with the outline reference size table to see if the relevant installation and space dimensions are satisfied	See Outline reference Dimensions

Description: 1) indicates that the information needs to be known or known in the selection.→

Page numbers	H2	H3	H4	B2	B3	B4
T2N	8	16	24	30	36	44
P1N	7	15	23	29	35	43

Page Numbers	H2	H3	H4	B2	B3	B4
PGA	9	17	24	31	37	44
PGB	10	18		32	38	

1.7 Selection coefficient

Table 1 Recommended value of machine coefficient f1

Industry Applications	Working machine	Daily running time, hours			Industries Applications	Working machine	Daily running time, hours		
		0.5 or less	> 0.5-10	> 10			0.5 or less	> 0.5-10	> 10
Water treatment	Concentrator (center drive)	-	-	1.2	Metal Machining Equipment	Board Turner	1.0	1.0	1.2
	Filter press	1.0	1.3	1.5		Steel Pusher	1.0	1.2	1.2
	Flocculator	0.8	1.0	1.3		Wire winder	-	1.6	1.6
	Aerator	-	1.8	2.0		Cold bed transversal rack	-	1.5	1.5
	Cuddling equipment	1.0	1.2	1.3		Roll straightener	-	1.6	1.6
	Longitudinal and rotary combined cuddling device	1.0	1.3	1.5		Continuous track	-	1.5	1.5
	Pre-concentrator	-	1.1	1.3		Intermittent track	-	2.0	2.0
	Water Turbine	-	-	2.0		Reversible tube rolling mill	-	1.8	1.8
pump	Screw pump	-	1.3	1.5		Continuous shears	-	1.5	1.5
	Centrifugal pump	1.0	1.2	1.3		Crank shears	1.0	1.0	1.0
	Positive displacement pump: 1 piston	1.3	1.4	1.8		Caster drive unit	-	1.4	1.4
	Positive displacement pump: >1 piston	1.2	1.4	1.5		Reversible billet opener	-	2.5	2.5
Dredging machine	Bucket conveyor	-	1.6	1.6		Reversible slab mill	-	2.5	2.5
	Tipping gear	-	1.3	1.5		Reversible wire mill	-	1.8	1.8
	Crawler walking mechanism	1.2	1.6	1.8		Reversible sheet mill	-	2.0	2.0
Bucket-wheel Style Dig Digger	For pile picking	-	1.7	1.7		Reversible medium plate mill	-	1.8	1.8
	For native soil	-	2.2	2.2		Roll gap adjustment drive device	0.9	1.0	-
	Extractor head	-	2.2	2.2	Conveying Machinery	Bucket conveyors	-	1.4	1.5
	Turn the mining arm	-	1.4	1.8		Winch	1.4	1.6	1.6
Chemistry Industry	Extruder	-	-	1.6		Winch	-	1.5	1.8
	Paste mixer	-	1.8	1.8		Belt conveyor ≤150KW	1.0	1.2	1.3
	Rubber calender	-	1.5	1.5		Belt conveyor ≥150KW	1.1	1.3	1.4
	Cooling cylinder	-	1.3	1.4		Cargo elevator	-	1.2	1.5
	Mixer: Even the medium	1.0	1.3	1.4		Passenger elevator	-	1.5	1.8
	Mixing machine: non-uniform medium	1.4	1.6	1.7		Scraper conveyer	-	1.2	1.5
	Blender: Even medium	1.0	1.3	1.5		Industrial escalators	1.0	1.2	1.4
	Mixer: uneven medium	1.2	1.4	1.6		Rail walking mechanism	-	1.5	-
	Blender: Uneven gas absorption	1.4	1.6	1.8	Cableway Cable Car	Freight ropeway	-	1.3	1.4
	Oven	1.0	1.3	1.5		Reciprocating aerial ropeway	-	1.6	1.8
	Centrifuge	1.0	1.2	1.3		Tow cableway	-	1.3	1.4
Cement Industrial	Concrete mixer	-	1.5	1.5		Round-robin cableway	-	1.4	1.6
	Crusher	-	1.2	1.4	compress machine	Plunger compressor	-	1.8	1.9
	Rotary Kiln	-	-	2.0		Centrifugal compressor		1.4	1.5
	Tube mill	-	-	2.0	Paper Making	Various types of pulper drives	-	1.8	2.0
	Powder separator	-	1.6	1.6	Cool tower	Cooling tower fan	-	-	2.0
	Roller press	-	-	2.0		Axial flow/centrifugal fan	-	1.4	1.5
Lifting Machinery	Slewing mechanism	1.0	1.4	1.8	Food Industry	Sugarcane cutter	-	-	1.7
	Pitching mechanism	1.0	1.1	1.4		Sugar cane mill	-	-	1.7
	Walking mechanism	1.1	1.6	2.0		Beet crusher	-	-	1.2
	Lifting mechanism	1.0	1.1	1.4		Extractor/mechanical refrigeration/steaming (beet to sugar)	-	-	1.4
	Swivel crane	1.0	1.2	1.6		Beet washing/shredder	-	-	1.5

Note: When your application experience Selection Procedure of coefficient conflicts with the above f1 recommended value, please use the application experience as the basis for Selection Procedure of, experience analogy is more in line with the design and Selection Procedure of principles.

Table 2 Prime mover coefficient f2

Type of prime mover	f2
Electric motors, steam turbines, hydraulic motors	1
4 to 6 cylinder piston engines	1.25
1 to 3 cylinder piston engine	1.5

Table 3 Peak torque coefficient f3

f3	Peak loads per hour			
	1-5 loads	6-30 reps	31-100 reps	>100 reps
One-way load	0.5	0.65	0.7	0.85
Alternating load	0.7	0.95	1.1	1.25

Table 4 Ambient temperature coefficient f4

f4	Ambient temperature						
	20 ℃	25 ℃	30 ℃	35 ℃	40 ℃	45 ℃	50 ℃
Synthetic oil	1.0	0.94	0.88	0.82	0.75	0.69	0.63
Mineral oil	0.75	0.69	0.63	0.56	0.50	0.44	0.38

Table 5 Fuel supply coefficient f8

f8	Splash lubrication	Circulating oil lubrication
Horizontal mounting	1	1.05
Vertical mounting	0.95	1.05

2 H2.. Product parameters

2.1 H2.. Rated input power P1N (kW) table

Type size		04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
i N	n1																					
6.3	1800												4285		*						*	*
	1500												3571		5034						*	*
	1200												2857		4027						*	*
	1000												2381		3356						*	*
7.1	1800	187	308		541		920		1607		2330		3827	4234	*	*	*		*		*	*
	1500	156	256		451		766		1339		1942		3189	3529	4454	*	*		*		*	*
	1200	125	205		360		613		1071		1553		2551	2823	3563	4156	*		*		*	*
	1000	104	171		300		511		893		1295		2126	2352	2969	3464	4672		*		*	*
8	1800	165	273		483		814		1427		2070		3404	3781	4810	*	*	*	*	*	*	*
	1500	138	228		402		678		1189		1725		2837	3151	4009	4597	*	*	*	*	*	*
	1200	110	182		322		542		951		1380		2270	2521	3207	3677	4961	*	*	*	*	*
	1000	92	152		268		452		793		1150		1891	2101	2672	3065	4134	4707	*	*	*	*
9	1800	146	242	324	447	552	732	931	1262	1697	1831	2405	3145	3364	4320	4965	*	*	*	*	*	*
	1500	121	201	270	372	460	610	776	1052	1414	1526	2004	2621	2803	3600	4137	*	*	*	*	*	*
	1200	97	161	216	298	368	488	621	842	1132	1221	1603	2097	2243	2880	3310	4465	4997	*	*	*	*
	1000	81	134	180	248	306	407	517	701	943	1017	1336	1747	1869	2400	2758	3720	4164	5057	*	*	*
10	1800	134	217	287	397	493	657	824	1111	1508	1611	2136	2778	3107	3848	4458	*	*	*	*	*	*
	1500	111	181	240	331	411	548	686	926	1256	1343	1780	2315	2590	3207	3715	5011	5622	*	*	*	*
	1200	89	145	192	265	328	438	549	741	1005	1074	1424	1852	2072	2566	2972	4009	4497	5449	*	*	*
	1000	74	121	160	220	274	365	458	617	838	895	1187	1543	1726	2138	2477	3341	3748	4541	5136	*	*
11.2	1800	119	190	254	351	456	574	741	990	1334	1479	1890	2480	2745	3449	3972	5357	*	*	*	*	*
	1500	99	158	212	292	380	479	618	825	1111	1232	1575	2067	2287	2874	3310	4465	5048	*	*	*	*
	1200	79	126	170	234	304	383	494	660	889	986	1260	1654	1830	2299	2648	3572	4038	4855	*	*	*
	1000	66	105	141	195	253	319	412	550	741	822	1050	1378	1525	1916	2206	2976	3365	4046	4612	5420	*
12.5	1800	106	173	214	313	405	525	666	905	1174	1313	1663	2210	2451	3047	3560	4801	*	*	*	*	*
	1500	88	144	178	261	337	437	555	754	978	1094	1386	1841	2042	2539	2966	4001	4497	*	*	*	*
	1200	70	116	143	209	270	350	444	603	782	875	1109	1473	1634	2031	2373	3201	3598	4351	4930	*	*
	1000	59	96	119	174	225	292	370	503	652	729	924	1228	1362	1693	1978	2667	2998	3626	4108	4894	5477
14	1800	93	153	187	272	358	459	581	800	1046	1144	1526	1941	2183	2749	3144	4185	4837	*	*	*	*
	1500	78	128	156	227	298	382	485	666	872	954	1272	1617	1820	2291	2620	3488	4031	4741	*	*	*
	1200	62	102	125	181	238	306	388	533	697	763	1018	1294	1456	1833	2096	2790	3225	3793	4419	*	*
	1000	52	85	104	151	199	255	323	444	581	636	848	1078	1213	1527	1747	2325	2687	3161	3682	4597	4922
16	1800	84	134	182	248	319	402	532	704	956	1038	1355	1761	1917	2304	2837	3798	4216	5163	*	*	*
	1500	70	112	152	207	266	335	443	586	797	865	1129	1467	1598	1920	2364	3165	3514	4302	4815	*	*
	1200	56	89	122	166	213	268	354	469	637	692	903	1174	1278	1536	1891	2532	2811	3442	3852	4963	*
	1000	47	74	101	138	177	223	295	391	531	577	753	978	1065	1280	1576	2110	2342	2868	3210	4136	4607
18	1800	74	123	161	222	277	372	465	622	845	915	1181	1571	1740	2176	2377	3348	3826	4551	5243	*	*

	1500	62	102	135	185	231	310	387	518	704	763	984	1309	1450	1813	1981	2790	3188	3793	4369	*	*
	1200	50	82	108	148	185	248	310	415	563	610	787	1047	1160	1451	1585	2232	2551	3034	3495	4552	5025
	1000	41	68	90	123	154	207	258	346	469	509	656	873	967	1209	1321	1860	2126	2529	2913	3794	4188
20	1800	65	106	141	198	253	331	407	567	743	819	1072	1389	1552	2037	2246	2957	3373	4019	4622		*
	1500	54	88	117	165	211	276	339	473	619	683	893	1158	1294	1698	1872	2464	2811	3349	3852		*
	1200	43	71	94	132	169	221	271	378	496	546	715	926	1035	1358	1497	1971	2249	2680	3081		4610
	1000	36	59	78	110	141	184	226	315	413	455	595	772	862	1132	1248	1643	1874	2233	2568		3842
22.4	1800	60	98	129	173	227	293	377	505	657	740	945		1372		2103	2709	2979	3682	4082		
	1500	50	82	108	144	189	244	314	421	548	617	787		1144		1752	2257	2482	3068	3401		
	1200	40	65	86	115	151	195	251	337	438	493	630		915		1402	1806	1986	2455	2721		
	1000	33	54	72	96	126	163	209	281	365	411	525		762		1168	1505	1655	2046	2268		
25	1800			112		202		335		599		845						2729		3739		
	1500			93		169		279		499		704						2274		3116		
	1200			74		135		224		400		564						1819		2493		
	1000			62		112		186		333		470						1516		2077		
28	1800			97		177		297		533		764										
	1500			80		147		247		445		637										
	1200			64		118		198		356		509										
	1000			54		98		165		296		424										
Type size		**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**

* For details, please contact us

2.2 H2.. Nominal output torque T2N (kN•m) table

Type size	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**	**12**	**13**	**14**	15	16	17	18	19	20	21	22	23	24
i N	**Nominal output torque capacity of the T2N gearbox (kN•m)**																				
6.3												143		195						500	550
7.1	6.9	11.2		20.3		33.7		59.3		86		143	160	195	230	292		410		520	565
8	6.9	11.2		20.3		33.7		59.3		86		143	160	195	230	292	335	410	458	540	585
9	6.9	11.2	14.4	20.3	25.6	33.7	42.2	59.3	73.8	86	107	143	160	195	230	292	335	410	458	555	610
10	6.9	11.2	14.4	20.3	25.6	33.7	42.2	59.3	73.8	86	107	143	160	195	230	292	335	410	458	575	625
11.2	6.9	11.2	14.4	20.3	25.6	33.7	42.2	59.3	73.8	86	107	143	160	195	230	292	335	410	458	575	645
12.5	6.9	11.2	13.5	20.3	25.6	33.7	42.2	59.3	73.8	86	107	143	160	195	230	292	335	410	458	600	650
14	6.9	11.2	13.5	20.3	25.6	33.7	42.2	59.3	73.8	86	107	143	160	195	230	292	335	410	458	620	675
16	6.9	11.2	14.4	20.3	25.6	33.7	42.2	59.3	73.8	86	107	143	160	195	230	292	335	410	458	640	695
18	6.9	11.2	14.4	20.3	25.6	33.7	42.2	59.3	73.8	86	107	143	160	195	230	292	335	410	458	640	725
20	6.9	11.2	14.4	20.3	25.6	33.7	42.2	59.3	73.8	86	107	143	160	195	230	292	335	410	458		725
22.4	6.9	11.2	14.4	20.3	25.6	33.7	42.2	59.3	73.8	86	107		160		230	292	335	410	458		
25			14.4		25.6		42.2		73.8		107						335		458		
28			13.5		25.6		42.2		73.8		107										

2.3 H2.. Actual gear ratio i table

Type size	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
i N	Actual gear ratio i																				
6.3												6.48		6.27						6.58	6.60
7.1	7.17	7.07		7.29		7.12		7.17		7.17		7.26	7.34	7.09	7.17	6.75		6.97		7.38	7.37
8	8.10	7.96		8.17		8.05		8.07		8.07		8.16	8.22	7.88	8.10	7.62	7.68	7.88	7.66	8.30	8.25
9	9.20	9.00	8.64	8.83	9.02	8.94	8.81	9.13	8.45	9.13	8.64	8.83	9.24	8.77	9.00	8.47	8.68	8.75	8.66	9.39	9.28
10	10.02	10.02	9.73	9.94	10.09	9.96	9.95	10.37	9.51	10.37	9.73	10.00	10.00	9.84	10.02	9.43	9.65	9.74	9.63	10.18	10.50
11.2	11.25	11.48	11.00	11.25	10.91	11.40	11.06	11.63	10.75	11.30	11.00	11.20	11.32	10.98	11.25	10.59	10.74	10.94	10.72	11.45	11.39
12.5	12.68	12.55	12.25	12.60	12.28	12.47	12.32	12.73	12.22	12.73	12.50	12.57	12.68	12.43	12.55	11.81	12.06	12.20	12.03	13.23	12.81
14	14.40	14.18	14.03	14.50	13.91	14.26	14.10	14.41	13.71	14.60	13.62	14.32	14.24	13.78	14.21	13.55	13.46	14.00	13.42	14.56	14.80
16	15.87	16.25	15.34	15.88	15.58	16.30	15.42	16.37	14.99	16.09	15.34	15.78	16.21	16.44	15.75	14.93	15.44	15.43	15.40	16.70	16.28
18	18.00	17.74	17.33	17.75	17.92	17.60	17.64	18.52	16.97	18.25	17.60	17.68	17.87	17.41	18.79	16.94	17.01	17.50	16.97	18.21	18.68
20	20.61	20.50	19.86	19.89	19.63	19.76	20.17	20.30	19.29	20.40	19.39	20.00	20.02	18.59	19.89	19.18	19.29	19.82	19.25		20.37
22.4	22.25	22.24	21.68	22.76	21.94	22.35	21.77	22.81	21.82	22.57	22.00		22.65		21.25	20.94	21.85	21.63	21.80		
25			25.06		24.59		24.45		23.92		24.59						23.85		23.80		
28			27.18		28.14		27.65		26.88		27.21										

2.4 H2.. Thermal power PG (kW) meter

Thermal power capacity of PGA gearbox without heat dissipation measures

Type size / i N	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
6.3												380		468	
7.1	53	72		107		150		211		279		377	397	468	494
8	53	72		107		149		210		276		373	394	464	494
9	53	71	80	107	119	149	162	210	235	274	303	370	390	459	490
10	53	70	79	105	118	148	162	209	233	274	300	370	387	456	485
11.2	53	70	78	104	117	147	161	208	233	274	297	370	387	456	481
12.5	52	70	77	103	116	146	161	208	232	273	297	368	387	455	481
14	51	70	77	102	115	143	159	206	231	269	297	367	385	454	481
16	51	68	77	102	114	142	158	204	231	269	296	363	384	452	479
18	51	68	77	102	113	142	155	200	229	268	292	363	380	447	477
20	49	68	75	100	113	142	154	200	227	264	292	362	379	447	472
22.4	49	65	75	100	113	139	154	199	223	261	292		379		472
25			75		111		154		223		287				
28			72		111		151		221		284				

Note: For details, please contact us about thermal power capability for Type size ≥19.

Thermal power capacity of PGB gearbox with cooling fan

Type size		04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
i N	n1															
6.3	1000												596		735	
	1200												639		788	
	1500												704		868	
	1800												769		948	
7.1	1000	92	127		194		263		382		491		591	605	734	752
	1200	101	142		218		294		431		549		634	641	788	797
	1500	116	165		255		340		503		635		699	695	868	865
	1800	131	187		292		386		575		721		764	750	948	932
8	1000	91	126		193		262		379		486		585	600	729	751
	1200	101	141		218		293		427		543		627	636	782	797
	1500	115	163		254		339		499		628		691	690	862	864
	1800	130	185		291		385		571		713		755	744	941	932
9	1000	90	125	136	193	209	262	278	379	414	482	512	581	593	721	746
	1200	100	139	151	218	233	293	308	427	462	538	564	623	629	773	791
	1500	114	161	173	254	270	339	353	499	535	623	642	686	683	852	858
	1800	128	183	194	291	307	385	397	571	607	707	719	750	736	931	925
10	1000	90	123	135	190	208	261	277	378	411	482	506	580	589	715	738
	1200	100	138	149	214	233	292	307	425	459	538	557	623	624	768	782
	1500	114	159	171	250	269	337	351	497	531	623	635	686	678	846	848
	1800	128	181	192	286	305	383	396	569	603	707	712	749	731	924	915
11.2	1000	90	123	133	188	206	258	276	376	411	482	502	580	589	715	732
	1200	100	137	148	212	230	289	306	424	459	538	553	623	624	767	776
	1500	114	158	169	247	266	334	350	495	531	623	630	686	677	845	842
	1800	128	180	190	283	302	379	394	566	602	707	706	749	730	924	908
12.5	1000	90	123	132	186	205	257	276	376	409	480	502	578	589	715	732
	1200	99	137	146	209	228	287	306	424	457	536	553	620	624	767	776
	1500	114	158	167	245	264	332	350	495	529	620	629	683	677	845	842
	1800	128	180	188	280	300	377	394	566	600	704	706	746	730	923	908
14	1000	88	123	131	185	202	251	273	372	407	473	502	576	586	712	732
	1200	97	137	145	208	226	281	302	419	455	528	553	617	621	764	776
	1500	111	158	166	243	262	325	346	490	526	611	629	680	674	842	842
	1800	125	180	187	278	297	369	390	560	598	694	706	743	727	920	908
16	1000	88	120	131	185	200	250	271	370	407	473	500	569	584	709	729
	1200	97	134	145	208	224	279	300	416	455	528	551	611	619	761	773
	1500	111	155	166	243	259	323	344	486	526	611	627	673	672	838	838
	1800	125	176	187	278	294	366	387	556	598	694	703	735	724	916	904
18	1000	87	120	131	185	199	250	266	362	403	473	493	569	578	702	726
	1200	96	134	145	208	222	279	294	408	450	528	543	611	613	753	769
	1500	110	155	166	243	257	323	337	476	521	611	618	673	665	829	835
	1800	124	176	187	278	292	366	379	545	591	694	693	735	717	906	900
20	1000	84	120	128	181	199	250	264	362	400	465	493	569	578	702	718
	1200	93	134	142	204	222	279	292	408	447	519	543	610	612	753	761
	1500	107	155	163	239	257	323	334	476	517	600	618	673	664	829	826
	1800	120	176	183	273	292	366	376	545	587	682	693	735	716	906	891
22.4	1000	84	115	128	181	199	245	264	359	392	460	493		577		718
	1200	93	128	142	204	222	274	292	405	438	514	542		612		761
	1500	107	148	163	238	257	317	334	473	506	594	617		664		826
	1800	120	168	183	272	292	360	376	541	575	675	692		716		891
25	1000			128		196		264		392		484				
	1200			142		218		292		438		533				
	1500			162		253		334		506		607				
	1800			183		287		376		575		680				
28	1000			123		195		259		389		479				
	1200			136		218		287		435		528				
	1500			156		252		329		503		601				
	1800			175		286		370		571		673				
Type size		04	05	06	07	08	09	10	11	12	13	14	15	16	17	18

Note: For details, please contact us about thermal power capability of Type size ≥19.

2.5 H2.. Interface size

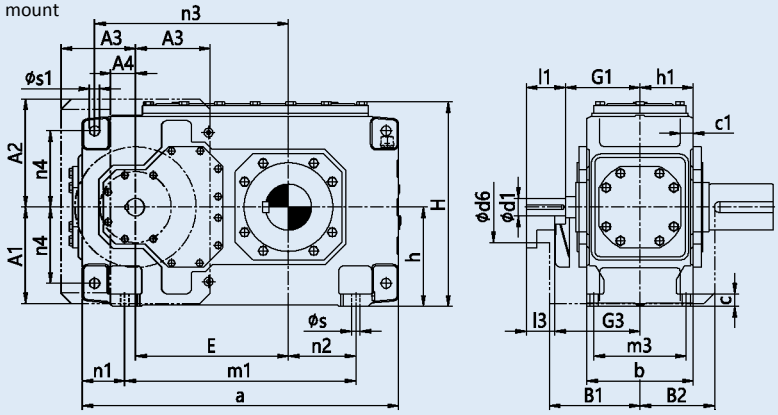
Two-stage drive

Type H2...

Type sizes 4-12

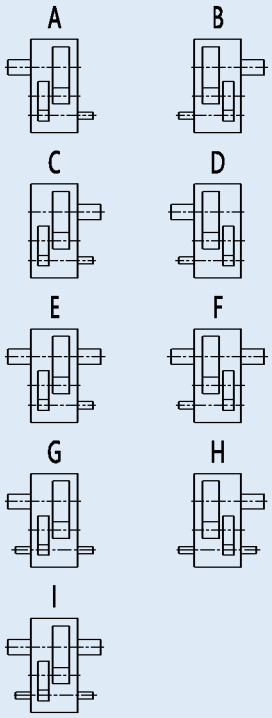
Horizontal mount

H2.. SH
H2.. HH
H2.. DH
H2.. HM
H2.. DM



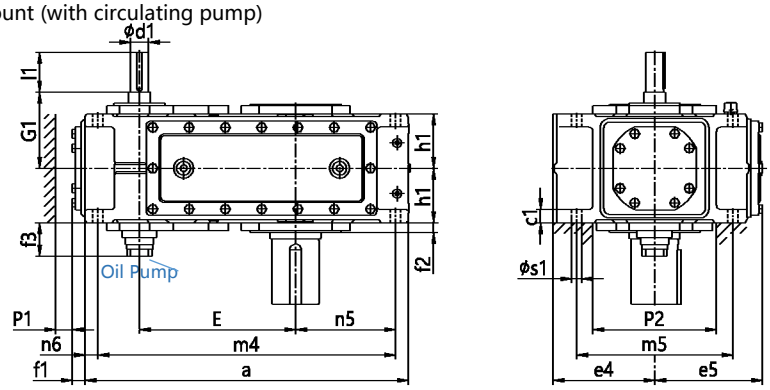
Horizontal mounting H2... H / H2.. M

Layout form



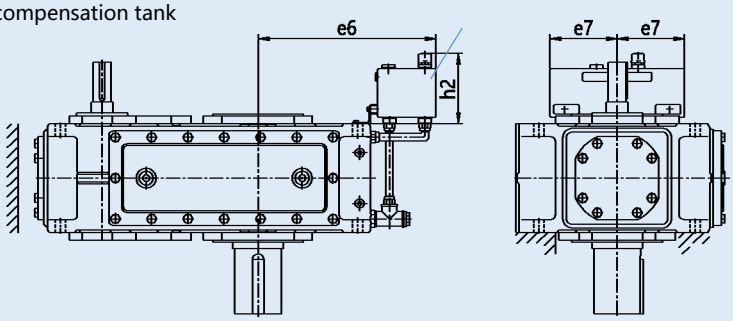
Vertical mount (with circulating pump)

H2.. SV
H2.. HV
H2.. DV



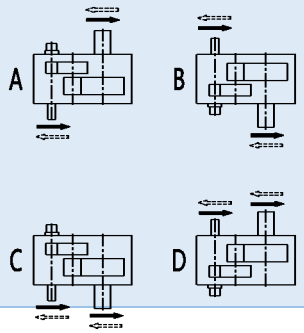
Upright mount (with compensating tank)

H2.. SV
H2.. HV compensation tank
H2.. DV



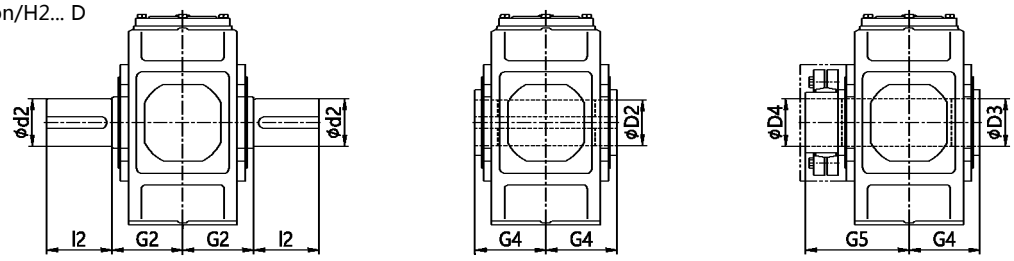
Vertical mount H2.. SV / H2.. HV / H2.. DV

Layout form



Output shaft form

Solid shaft key connection/H2... S Hollow shaft key connection/H2... H hollow shaft locking disc keyless connection/H2... D



Shaft extension dimensions

Type size	Input shaft (high speed shaft)												G1	G3	Output shaft (low speed shaft)							
	iN=6.3-11.2			iN=8-14			iN=12.5-22.4			iN=16-28												
	d1	l1	l3	d1	l1	l3	d1	l1	l3	d1	l1	l3			d2	l2	G2	D2	D3	D4	G4	G5
04	45m6	100	80				32m6	80	60				170	190	80m6	170	140	80H7	85H7	85H7	140	205
05	50m6	100	80				38m6	80	60				195	215	100m6	210	165	95H7	100H7	100H7	165	240
06				50m6	100	80				38m6	80	60	195	215	110n6	210	165	105H7	110H7	110H7	165	240
07	60m6	135	105				50m6	110	80				210	240	120n6	210	195	115H7	120H7	120H7	195	280
08				60m6	135	105				50m6	110	80	210	240	130n6	250	195	125H7	130H7	130H7	195	285
09	75m6	140	110				60m6	140	110				240	270	140n6	250	235	135H7	145H7	140H7	235	330
10				75m6	140	110				60m6	140	110	240	270	160n6	300	235	150H7	155H7	150H7	235	350
11	90m6	165	130				70m6	140	105				275	310	170n6	300	270	165H7	170H7	165H7	270	400
12				90m6	165	130				70m6	140	105	275	310	180n6	300	270	180H7	185H7	180H7	270	405

Horizontal mounting dimensions

Type size	E	a	A1	A2	A3	A4	b	B1	B2	c	c1	d6	h^{0}_{-1}	h1	H	m1	m3	n1	n2	n3	n4	s	s1	Lubricating		Weight (kg)
																								(1)*	(2)*	
04	270	565	195	225	150	30	215	205	158	28	30±1	136	200	107.5	415	355	180	105	85	345	150	19	24H9	10	7	190
05	315	640	225	260	175	55	255	230	178	28	30±1	150	230	127.5	482	430	220	105	100	405	180	19	24H9	15	11	300
06	350	720	225	260	175	55	255	230	178	28	30±1	150	230	127.5	482	510	220	105	145	440	180	19	24H9	16	12	355
07	385	785	272	305	210	70	300	255	210	35	36±1	200	280	150	572	545	260	120	130	500	215	24	28H9	27	21	505
08	430	890	272	305	210	70	300	255	210	35	36±1	200	280	150	582	650	260	120	190	545	215	24	28H9	30	23	590
09	450	925	312	355	240	100	370	285	245	40	45±	200	320	185	662	635	320	145	155	585	245	28	36H9	42	33	830
10	500	1025	312	355	240	100	370	285	245	40	45±	200	320	185	662	735	320	145	205	635	245	28	36H9	45	34	960
11	545	1105	372	420	285	135	430	325	285	50	54±	210	380	215	782	775	370	165	180	710	300	35	40H9	71	58	1335
12	615	1260	372	420	285	135	430	325	285	50	54±	210	380	215	790	930	370	165	265	780	300	35	40H9	76	60	1615

(1)* shaft seal; (2)* labyrinth seal.

Vertical mounting dimensions

Type size	E	a	c1	e4	e5	e6	e7	f1	f2	f3	h1	h2	m4	m5	n5	n6	P1	P2	s1	Lube oil (L)		weight (kg)
																				(3)*	(4)*	
04	270	565	30±1	200	215	370	190	28	22	-	107.5	205	505	300	160	30	35	250	24	23	-	190
05	315	640	30±1	230	252	385	240	38	28	150	127.5	205	580	360	175	30	35	305	24	35	17.5	300
06	350	720	30±1	230	252	425	240	38	28	150	127.5	205	660	360	220	30	35	305	24	37	18.5	355
07	385	785	36±1	280	292	425	240	42	30	145	150	205	715	430	215	35	35	360	28	62	31	505
08	430	890	36±1	280	302	485	240	42	32	145	150	205	820	430	275	35	35	360	28	69	35	590
09	450	925	45±1.5	320	342	560	330	42	32	135	185	275	845	490	260	40	40	415	36	98	49	830
10	500	1025	45±1.5	320	342	610	330	42	32	135	185	275	945	490	310	40	40	415	36	110	55	960
11	545	1105	54±1.5	380	402	595	330	48	35	145	215	275	1005	600	295	50	50	520	40	160	80	1335
12	615	1260	54±1.5	380	410	680	330	48	35	145	215	275	1160	600	380	50	50	520	40	180	90	1615

((3)* Dip oil for lubrication; (4)*

Two-stage drive

Type H2...

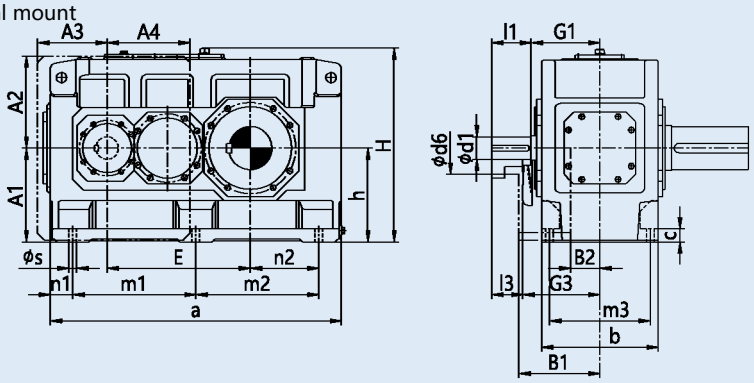
Type sizes 13-24

Horizontal mount

H2.. SH

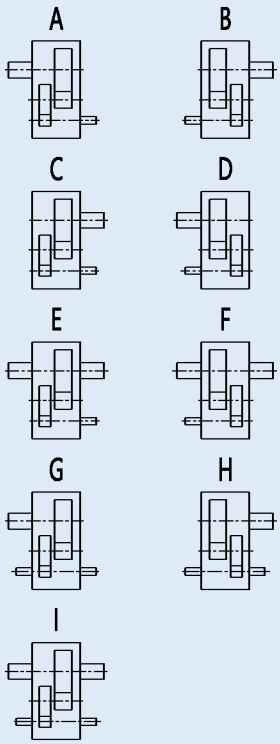
H2.. HH

H2.. DH



Horizontal mount H2... H / H2.. M

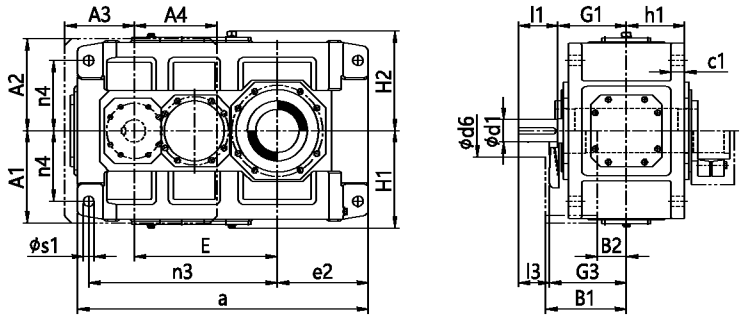
Layout form



Horizontal installation without foot

H2.. HM

H2.. DM

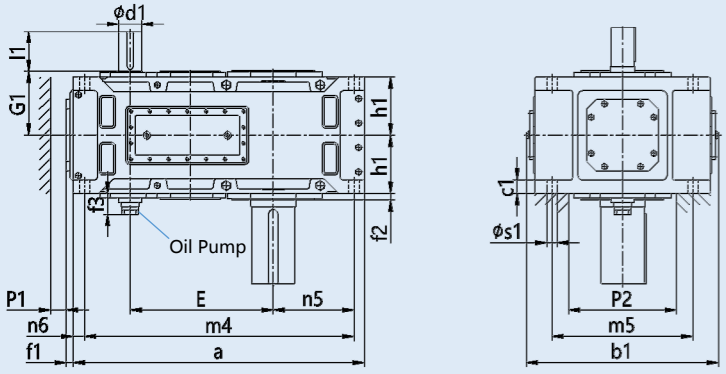


Upright mount

H2.. SV

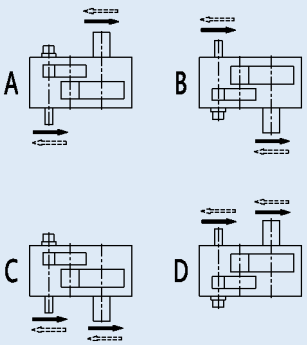
H2.. HV

H2.. DV



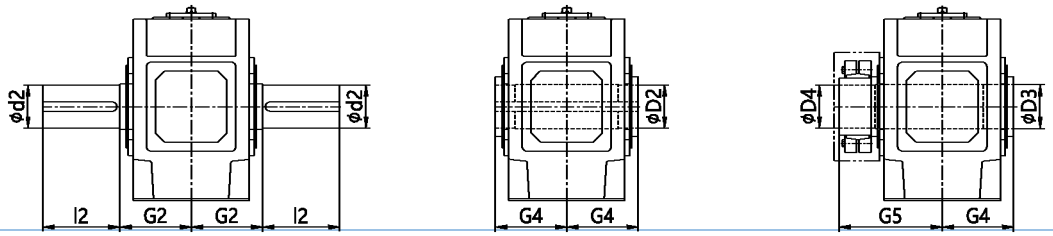
Vertical mount H2.. SV / H2.. HV / H2.. DV

Layout form



Output shaft form

Solid shaft key connection/H2... S Hollow shaft key connection/H2... H hollow shaft locking disc keyless connection/H2... D



Shaft extension dimensions

Type size	Input shaft (high speed shaft)																		G1	G3	Output shaft (low speed shaft)							
	iN=6.3-11.2			iN=7.1-12.5			iN=8-14			iN=12.5-20			iN=14-22.4			iN=16-25					d2	l2	G2	D2	D3	D4	G4	G5
	d1	l1	l3	d1	l1	l3	d1	l1	l3	d1	l1	l3	d1	l1	l3	d1	l1	l3										
13	100m6	205	170							85m6	170	135							330	365	200n6	350	335	190H7	195H7	190H7	335	480
14							100m6	205	170							85m6	170	135	330	365	210n6	350	335	210H7	215H7	210H7	335	480
15	120n6	210	165							100m6	210	165							365	410	230n6	410	380	230H7	235H7	230H7	380	550
16				120n6	210	165							100m6	210	165				365	410	240n6	410	380	240H7	245H7	240H7	380	550
17	125n6	245	200							110n6	210	165					·		420	465	250n6	410	415	250H7	260H7	250H7	415	600
18				125n6	245	200							110n6	210	165				420	465	270n6	470	415	275H7	285H7	280H7	415	600
19	150n6	245	200							120n6	210	165							475	520	290n6	470	465	-	295H7	285H7	465	670
20				150n6	245	200							120n6	210	165				475	520	300n6	500	465	-	315H7	310H7	465	670
21	170n6	290	240							140n6	250	200							495	545	320n6	500	490	-	335H7	330H7	490	715
22				170n6	290	240							140n6	250	200				495	545	340n6	550	490	-	345H7	340H7	490	725
23	190n6	330	280							150n6	250	200							560	610	360n6	590	540	-	365H7	360H7	540	785
24				190n6	330	280							150n6	250	200				560	610	380n6	590	540	-	385H7	380H7	540	805

Horizontal mounting dimensions

Type size	E	a	A1	A2	A3	A4	b	B1	B2	c	c1	d6	h^{0}_{-1}	h1	H	H1	H2	m1	m2	m3	n1	n2	n3	n4	s	s1	Lube oil (L)			Weight (kg)	
																											(1)*	(2)*	H2..M	H2..H	H2..M
13	635	1290	430	460	330	365	550	385	135	60	61±2	250	440	272.5	900	450	460	545	545	475	100	305	835	340	35	48H9	135	120	110	2000	1880
14	705	1430	430	460	330	365	550	385	135	60	61±2	250	440	272.5	900	450	460	545	685	475	100	375	905	340	35	48H9	140	130	115	2570	2430
15	762	1550	490	500	370	440	625	430	155	70	72±2	280	500	310	100	490	500	655	655	535	120	365	1005	375	42	55H9	210	190	160	3430	3240
16	808	1640	490	500	370	440	625	430	155	70	72±2	280	500	310	100	490	500	655	745	535	120	410	1050	375	42	55H9	215	200	165	3655	3465
17	860	1740	540	565	435	505	690	485	140	80	81±2	280	550	340	111	555	560	735	735	600	135	390	1145	425	42	55H9	290	260	230	4650	4420
18	920	1860	540	565	435	505	690	485	140	80	81±2	280	550	340	111	555	560	735	855	600	135	450	1205	425	42	55H9	300	270	240	5125	4870
19	997	2010	600	600	500	450	790	540	190	90	91±2	310	620	390	124	615	620	850	850	690	155	435	1345	475	48	65H9	320	-	300	6600	6300
20	1057	2130	600	600	500	450	790	540	190	90	91±2	310	620	390	124	615	620	850	970	690	155	495	1405	475	48	65H9	340	-	320	7500	7200
21	1067	2140	680	680	500	610	830	565	200	100	100±2	450	700	410	139	685	690	900	900	720	170	485	1400	520	56	75H9	320	-	350	8900	8400
22	1122	2250	680	680	500	610	830	565	200	100	100±2	450	700	410	139	685	690	900	1010	720	170	540	1455	520	56	75H9	340	-	370	9600	9200
23	1185	2380	770	770	550	550	930	630	220	115	120±2	450	780	462	155	770	770	1010	1010	810	180	550	1560	580	56	80H9	430	-	470	11600	11000
24	1250	2510	770	770	550	550	930	630	220	115	120±2	450	780	462	155	770	770	1010	1140	810	180	615	1625	580	56	80H9	450	-	500	13000	12300

(1)* shaft seal; (2)*

Vertical mounting dimensions

Type size	E	a	b1	c1	f1	f2	f3	h1	m4	m5	n5	n6	P1	P2	s1	Lube oil (L)	Weight (kg)
13	635	1290	900	61±2	53	35	130	272.5	1195	680	360	50	50	580	48	80	1880
14	705	1430	900	61±2	53	35	130	272.5	1335	680	430	50	50	580	48	90	2430
15	762	1550	980	72±2	63	42	130	310	1435	750	430	60	50	570	55	140	3240
16	808	1640	980	72±2	63	42	130	310	1525	750	475	60	50	570	55	150	3465
17	860	1740	1110	81±2	60	42	170	340	1610	850	465	70	70	630	55	175	4420
18	920	1860	1110	81±2	60	42	170	340	1730	850	525	70	70	630	55	185	4870
19-24 Supply on request																	

3 H3.. Product parameters

3.1 H3.. Rated input power P1N (kW) table

Type size		05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
i N	n1																				
22.4	1800	101		185		317		536		789		1341	1525	1781	1864	2815		3651		5351	5550
	1500	84		154		264		447		657		1118	1271	1484	1553	2346		3042		4459	4625
	1200	68		124		211		358		526		894	1017	1187	1242	1877		2434		3567	3700
	1000	56		103		176		298		438		745	847	990	1035	1564		2028		2973	3083
25	1800	88		169		277		472		716		1217	1339	1616	1870	2540	2843	3313	3714	4676	5232
	1500	74		141		231		393		597		1014	1116	1347	1559	2117	2369	2761	3095	3897	4360
	1200	59		113		185		315		477		811	893	1077	1247	1693	1895	2209	2476	3117	3488
	1000	49		94		154		262		398		676	744	898	1039	1411	1579	1841	2063	2598	2906
28	1800	81	111	151	190	257	320	417	553	631	809	1054	1215	1400	1697	2129	2565	2921	3370	4251	4735
	1500	67	92	126	158	214	267	348	461	526	674	878	1013	1166	1414	1774	2137	2434	2809	3542	3946
	1200	54	74	101	127	171	213	278	369	421	539	703	810	933	1131	1419	1710	1947	2247	2834	3157
	1000	45	62	84	106	143	178	232	307	351	450	586	675	778	943	1183	1425	1623	1872	2362	2631
31.5	1800	70	97	132	173	218	280	390	487	570	734	956	1052	1270	1470	1996	2149	2632	2971	3816	4305
	1500	59	81	110	145	181	233	325	406	475	612	797	877	1058	1225	1663	1791	2193	2476	3180	3587
	1200	47	64	88	116	145	187	260	325	380	490	638	702	847	980	1330	1433	1755	1981	2544	2870
	1000	39	54	73	96	121	156	217	271	317	408	531	585	705	816	1109	1194	1462	1651	2120	2391
35.5	1800	64	89	118	155	202	259	345	431	503	647	827	955	1098	1333	1672	2015	2320	2678	3469	3864
	1500	54	74	98	129	168	216	287	359	419	539	689	796	915	1111	1394	1679	1934	2231	2891	3220
	1200	43	59	79	103	134	173	230	287	335	432	551	637	732	889	1115	1343	1547	1785	2312	2576
	1000	36	49	66	86	112	144	192	239	279	360	459	530	610	741	929	1120	1289	1488	1927	2147
40	1800	56	77	108	135	171	220	306	402	447	585	750	825	996	1153	1612	1689	2148	2360	3035	3513
	1500	47	64	90	113	142	183	255	335	373	487	625	688	830	960	1343	1407	1790	1967	2529	2927
	1200	38	51	72	90	114	147	204	268	298	390	500	550	664	768	1075	1126	1432	1574	2024	2342
	1000	31	43	60	75	95	122	170	224	248	325	417	459	553	640	896	938	1193	1311	1686	1951
45	1800	52	71	96	121	158	204	271	356	394	515	667	749	886	1046	1351	1628	1893	2185	2759	3074
	1500	43	59	80	101	132	170	225	296	328	430	556	624	739	871	1126	1356	1578	1821	2299	2561
	1200	34	47	64	81	105	136	180	237	263	344	445	499	591	697	901	1085	1262	1457	1839	2049
	1000	29	39	54	67	88	113	150	198	219	286	371	416	492	581	750	904	1052	1214	1533	1708
50	1800	45	62	84	111	138	173	237	316	357	459	606	667	804	931	1247	1364	1708	1926	2423	2794
	1500	37	51	70	92	115	144	198	263	298	382	505	555	670	776	1039	1137	1424	1605	2019	2328
	1200	30	41	56	74	92	115	158	211	238	306	404	444	536	620	832	909	1139	1284	1615	1863
	1000	25	34	47	61	77	96	132	175	199	255	336	370	447	517	693	758	949	1070	1346	1552
56	1800	41	56	75	99	128	160	210	279	315	404	533	605	708	844	1045	1259	1506	1738	2198	2454
	1500	34	47	63	82	107	133	175	233	263	337	444	504	590	704	871	1050	1255	1448	1832	2045
	1200	27	38	50	66	85	107	140	186	210	270	355	403	472	563	697	840	1004	1159	1466	1636
	1000	23	31	42	55	71	89	117	155	175	225	296	336	393	469	581	700	837	966	1221	1363
63	1800	36	49	68	86	112	140	192	245	276	367	471	532	626	743	949	1055	1323	1532	1961	2226
	1500	30	41	57	72	93	116	160	204	230	305	393	444	521	619	790	880	1102	1277	1635	1855
	1200	24	33	46	58	74	93	128	163	184	244	314	355	417	495	632	704	882	1021	1308	1484
	1000	20	27	38	48	62	78	106	136	153	204	262	296	348	413	527	586	735	851	1090	1237
71	1800	32	45	60	77	102	129	171	217	255	323	430	471	571	657	836	958	1200	1345	1734	1986
	1500	26	37	50	64	85	108	143	180	213	269	358	392	476	548	697	798	1000	1121	1445	1655
	1200	21	30	40	51	68	86	114	144	170	215	287	314	380	438	557	639	800	897	1156	1324
	1000	18	25	33	43	57	72	95	120	142	180	239	261	317	365	465	532	667	747	964	1103
80	1800	29	39	53	70	89	113	153	198	227	283	383	429	508	599	748	844	1071	1221		1599
	1500	24	33	44	58	74	94	127	165	189	236	319	358	423	499	624	704	892	1017		1332
	1200	19	26	35	47	59	75	102	132	152	188	255	286	339	400	499	563	714	814		1066
	1000	16	22	29	39	49	63	85	110	126	157	213	238	282	333	416	469	595	678		888
90	1800	26	35	49	62	82	103	134	177	201	262		382		533	654	756	924	1089		
	1500	22	29	41	51	68	86	111	147	168	218		318		444	545	630	770	908		
	1200	18	23	33	41	54	69	89	118	134	175		255		356	436	504	616	726		
	1000	15	19	27	34	45	57	74	98	112	145		212		296	363	420	513	605		
100	1800		29		54		89		158		233						663		963		
	1500		24		45		75		132		194						552		803		
	1200		20		36		60		105		155						442		642		
	1000		16		30		50		88		130						368		535		
112	1800		28		50		82		138		206										
	1500		23		42		69		115		172										
	1200		19		33		55		92		137										
	1000		16		28		46		77		115										
Type size		05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

3.2 H3.. Nominal output torque T2N (kN•m) table

Type size	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
i N	Nominal output torque capacity of the T2N gearbox (kN•m)																			
22.4	11.6		21.7		36		63.5		93		153	173	200	**210**	300		420		640	675
25	11.6		21.7		36		63.5		93		153	173	200	240	300	345	420	470	640	700
28	11.6	15.5	21.7	27.5	36	45	63.5	77.2	93	115	153	173	200	240	300	345	420	470	640	725
31.5	11.6	15.5	21.7	27.5	36	45	63.5	77.2	93	115	153	173	200	240	300	345	420	470	640	725
35.5	11.6	15.5	21.7	27.5	36	45	63.5	77.2	93	115	153	173	200	240	300	345	420	470	640	725
40	11.6	15.5	21.7	27.5	36	45	63.5	77.2	93	115	153	173	200	240	300	345	420	470	640	725
45	11.6	15.5	21.7	27.5	36	45	63.5	77.2	93	115	153	173	200	240	300	345	420	470	640	725
50	11.6	15.5	21.7	27.5	36	45	63.5	77.2	93	115	153	173	200	240	300	345	420	470	640	725
56	11.6	15.5	21.7	27.5	36	45	63.5	77.2	93	115	153	173	200	240	300	345	420	470	640	725
63	11.6	15.5	21.7	27.5	36	45	63.5	77.2	93	115	153	173	200	240	300	345	420	470	640	725
71	11.6	15.5	21.7	27.5	36	45	63.5	77.2	93	115	153	173	200	240	300	345	420	470	640	725
80	11.6	15.5	21.7	27.5	36	45	63.5	77.2	93	115	153	173	200	240	300	345	420	470		660
90	11.6	15.5	21.7	27.5	36	45	63.5	77.2	93	115		173		240	290	345	410	470		
100		14.5		27.5		45		77.2		115						335		470		
112		15		27.5		45		77.2		115										

3.3 H3.. Actual gear ratio i table

Type size	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
i N	**Actual gear ratio i**																			
22.4	22.58		23.09		22.41		23.35		23.25		22.50	22.37	22.14	22.22	21.02		22.69		23.59	23.99
25	25.88		25.29		25.62		26.53		25.62		24.79	25.47	24.41	25.31	23.29	23.94	25.00	24.96	26.99	26.39
28	28.25	27.59	28.27	28.55	27.66	27.72	30.01	27.51	29.06	28.03	28.63	28.08	28.18	27.89	27.80	26.53	28.36	27.50	29.69	30.20
31.5	32.50	31.63	32.46	31.27	32.61	31.69	32.11	31.26	32.18	30.89	31.56	32.42	31.06	32.21	29.65	31.66	31.47	31.20	33.08	33.22
35.5	35.47	34.52	36.27	34.94	35.21	34.21	36.32	35.36	36.50	35.04	36.51	35.73	35.93	35.50	35.38	33.76	35.70	34.62	36.39	37.00
40	40.63	39.72	39.71	40.12	41.58	40.33	40.93	37.83	41.03	38.79	40.23	41.34	39.60	41.07	36.71	40.29	38.57	39.27	41.59	40.71
45	44.34	43.35	44.38	44.84	44.89	43.54	46.30	42.79	46.54	44.00	45.21	45.56	44.50	45.26	43.80	41.80	43.75	42.43	45.75	46.52
50	51.07	49.65	50.82	49.08	51.36	51.42	52.75	48.22	51.33	49.46	49.82	51.19	49.05	50.86	47.44	49.88	48.49	48.13	52.09	51.17
56	55.74	54.19	56.80	54.85	55.45	55.52	59.67	54.54	58.23	56.10	56.61	56.42	55.73	56.05	56.60	54.02	55.00	53.34	57.42	58.28
63	63.47	62.42	62.59	62.82	63.57	63.52	65.36	62.15	66.56	61.88	64.04	64.11	63.04	63.69	62.38	64.47	62.63	60.50	64.35	64.23
71	71.98	68.13	71.00	70.21	69.38	68.58	73.04	70.30	71.86	70.19	70.21	72.51	69.11	72.04	70.75	71.04	69.03	68.89	72.78	71.99
80	79.81	77.58	81.28	77.37	80.19	78.62	81.87	77.00	80.68	80.24	78.89	79.50	77.66	78.99	79.08	80.58	77.37	75.93		81.41
90	86.59	87.98	87.76	87.76	86.98	85.81	93.68	86.05	91.25	86.63		89.33		88.75	87.51	90.06	87.50	85.11		
100		97.54		100.47		99.18		96.45		97.26						99.67		96.25		
112		105.83		108.49		107.58		110.36		110.00										

3.4 H3.. Thermal power PG (kW) meter

Thermal power capacity of PGA gearbox without heat dissipation measures

Type size / i N	05	06	07	08	09	10	11	12	13	14	15	16	17	18
22.4	48		73		102		146		190		259	274	305	324
25	48		72		102		146		190		259	270	303	322
28	48	52	71	80	102	110	144	162	190	206	257	270	301	320
31.5	48	52	70	79	98	110	144	162	188	206	257	269	301	318
35.5	48	52	70	78	98	110	143	159	188	206	254	269	301	318
40	47	52	70	77	97	106	138	159	186	203	253	265	296	317
45	46	52	68	77	97	106	138	158	182	203	251	264	294	313
50	46	51	68	77	95	105	137	153	180	201	246	262	294	310
56	46	50	67	75	95	105	137	153	179	196	245	257	287	310
63	45	50	67	75	94	103	134	151	178	194	242	256	283	302
71	45	50	67	74	94	103	134	151	178	193	242	252	283	298
80	44	49	66	74	94	102	133	148	174	192	236	252	282	298
90	44	49	66	74	91	102	132	148	172	192		246		297
100		49		72		101		146		188				
112		49		72		99		146		186				

Note: For details, please contact us about thermal power capability for Type size ≥19.

Thermal power capacity of PGB gearbox with cooling fan

Type size		05	06	07	08	09	10	11	12	13	14	15	16	17	18
i N	n1														
22.4	1000	78		117		165		237		299		406	417	464	478
	1200	84		127		179		257		320		436	442	492	500
	1500	94		142		200		287		353		480	480	534	533
	1800	104		157		221		317		386		525	517	576	567
25	1000	78		117		165		237		299		406	411	461	474
	1200	84		127		179		257		320		436	436	489	497
	1500	94		141		200		287		353		480	473	530	530
	1800	104		156		221		317		386		525	510	572	563
28	1000	77	82	114	125	165	173	233	254	299	313	404	411	459	471
	1200	84	88	124	135	179	186	253	272	320	332	434	436	486	493
	1500	93	97	138	148	200	205	283	300	353	360	478	473	528	526
	1800	103	106	153	162	221	224	313	328	386	388	522	510	569	559
31.5	1000	77	82	114	125	159	173	233	254	295	313	404	409	459	469
	1200	84	88	123	134	172	185	253	272	317	332	434	434	486	490
	1500	93	97	138	147	193	204	282	300	349	360	478	470	528	523
	1800	103	106	152	161	213	223	312	328	381	388	522	507	569	556
35.5	1000	77	82	113	122	159	173	231	250	294	313	398	409	457	469
	1200	84	88	122	131	172	185	251	269	316	332	427	434	485	490
	1500	93	97	137	144	193	204	280	296	348	360	471	470	526	523
	1800	103	106	151	157	213	223	310	323	380	388	515	507	567	556
40	1000	75	82	113	121	157	167	224	250	292	309	398	403	451	467
	1200	82	88	122	130	171	179	243	268	313	328	427	427	478	489
	1500	91	97	137	143	191	197	271	295	345	356	470	464	519	522
	1800	101	106	151	157	211	215	300	322	377	384	513	500	560	554
45	1000	74	82	110	121	157	167	224	248	285	309	395	402	448	461
	1200	81	88	120	129	171	179	243	266	306	327	424	426	475	482
	1500	90	97	134	143	191	197	271	293	337	355	467	463	515	515
	1800	100	106	148	156	211	215	300	320	368	383	510	499	556	547
50	1000	74	80	110	121	154	165	221	240	282	306	386	399	448	458
	1200	80	86	119	129	167	177	240	257	303	324	414	423	475	479
	1500	90	94	133	143	187	195	268	284	334	352	456	459	515	511
	1800	99	103	147	156	206	213	296	310	364	379	498	495	556	543
56	1000	74	79	109	118	154	165	221	240	280	299	384	391	436	458
	1200	80	85	118	127	167	177	240	257	301	317	412	414	462	479
	1500	90	93	132	139	187	195	268	284	331	344	454	449	502	511
	1800	99	102	146	152	206	213	296	310	362	371	496	485	541	543
63	1000	72	78	109	118	152	161	217	237	279	296	379	389	431	446
	1200	78	84	118	126	165	173	235	255	299	313	407	412	456	466
	1500	88	93	132	139	184	191	263	281	330	340	448	447	495	498
	1800	97	101	146	152	204	208	290	306	360	367	490	482	534	529
71	1000	72	78	108	116	152	161	217	237	279	294	379	384	431	440
	1200	78	84	117	125	165	173	235	255	299	311	407	407	456	460
	1500	88	93	131	137	184	191	263	281	330	338	448	442	495	491
	1800	97	101	145	150	204	208	290	306	360	364	490	476	534	522
80	1000	72	77	106	116	152	159	214	232	273	293	370	384	429	440
	1200	78	82	115	125	165	171	233	249	293	310	397	407	454	460
	1500	87	91	128	137	184	188	260	275	323	336	437	442	493	491
	1800	96	99	142	150	203	206	287	300	353	363	477	476	532	522
90	1000	72	77	106	116	148	159	214	232	270	292		374		438
	1200	78	82	115	124	160	171	232	249	290	310		397		458
	1500	87	91	128	137	179	188	259	275	320	336		430		489
	1800	96	99	142	149	198	206	286	300	349	363		464		519
100	1000		76		113		159		230		286				
	1200		82		121		171		247		303				
	1500		90		134		188		272		329				
	1800		99		146		205		297		355				
112	1000		76		113		155		229		283				
	1200		82		121		166		246		300				
	1500		90		134		183		271		326				
	1800		99		146		200		296		351				
Type size		05	06	07	08	09	10	11	12	13	14	15	16	17	18

Note: For details, please contact us about thermal power capability of Type size ≥19.

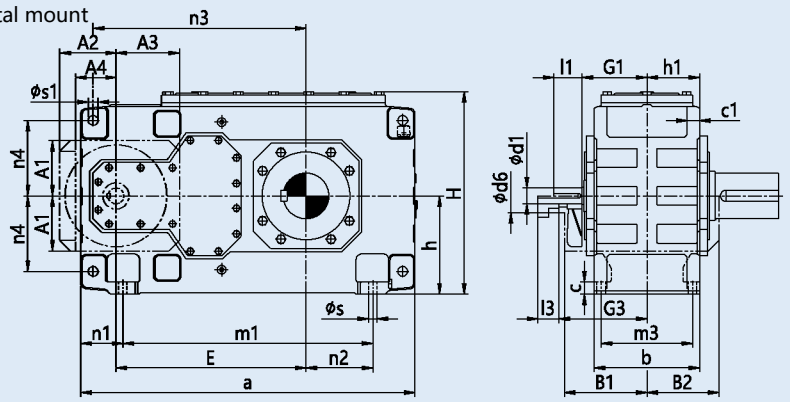
3.5 H3.. Interface size

Three-stage drive

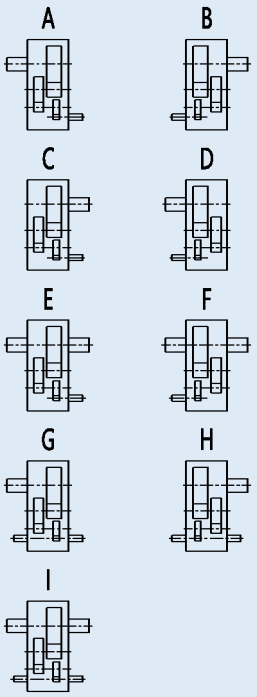
Type H3...

Type sizes 5-12

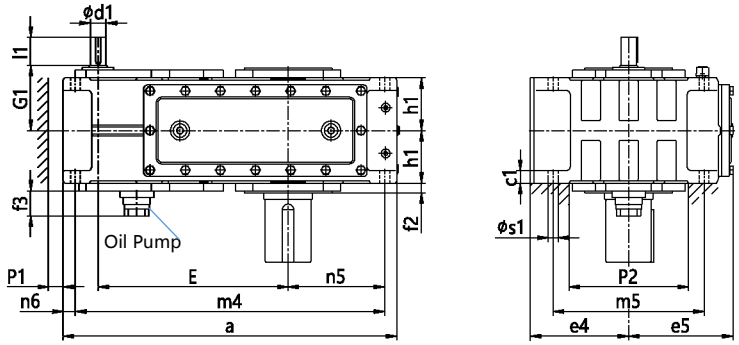
Horizontal mount
H3.. SH
H3.. HH
H3.. DH
H3.. HM
H3.. DM



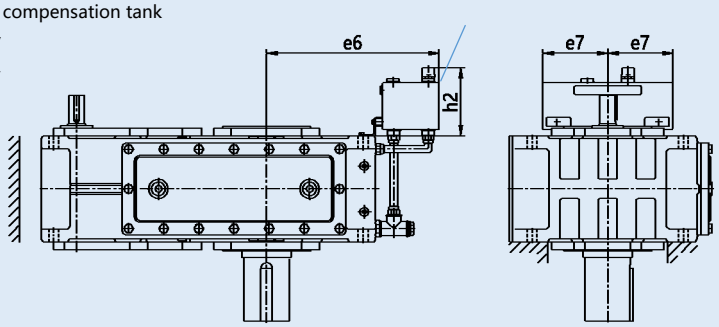
Horizontal mount H3... H / H3.. M
Layout form



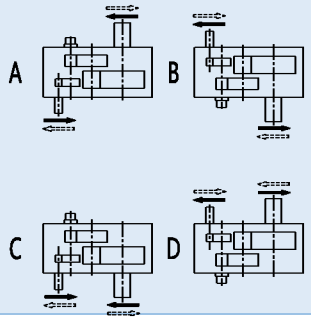
Vertical mounting (with circulating pump)
H3.. SV
H3.. HV
H3.. DV



Upright mount (with compensating tank)
H3.. SV compensation tank
H3.. HV
H3.. DV

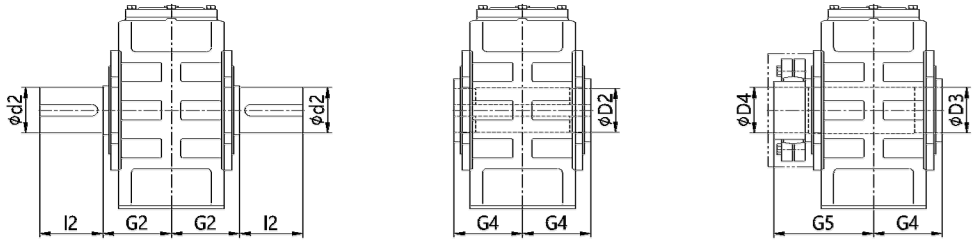


Vertical mount H3... SV / H3.. HV / H3.. DV
Layout form



Output shaft form

Solid shaft key connection/H3... S Hollow shaft key connection/H3... H hollow shaft locking disc keyless connection/H3... D



Shaft extension dimensions

Type size	Input shaft (high speed shaft)																							
	iN=25-45				IN = 31.5-56				iN=50-63				iN=63-80				iN=71-90				iN=90-112				G1	G3
	d1		l1	l3	d1		l1	l3	d1		l1	l3	d1		l1	l3	d1		l1	l3	d1		l1	l3		
	Standard	Enhanced			Standard	Enhanced			Standard	Enhanced			Standard	Enhanced			Standard	Enhanced			Standard	Enhanced				
05	40m6	45m6	70	70					30m6	35m6	50	50					24k6	25k6	40	40					160	220
06					40m6	45m6	70	70					30m6	35m6	50	50					24k6	25k6	40	40	160	220
07	45m6	50m6	80	80					35m6	40m6	60	60					28m6	30m6	50	50					185	250
08					45m6	50m6	80	80					35m6	40m6	60	60					28m6	30m6	50	50	185	250
09	60m6	65m6	125	105					45m6	50m6	100	80					32m6	35m6	80	60					230	300
10					60m6	65m6	125	105					45m6	50m6	100	80					32m6	35m6	80	60	230	300
11	70m6	80m6	120	120					50m6	55m6	80	80					42m6	45m6	70	70					255	330
12					70m6	80m6	120	120					50m6	55m6	80	80					42m6	45m6	70	70	255	330

Type size	Output shaft (low speed shaft)							
	d2	l2	G2	D2	D3	D4	G4	G5
05	100m6	210	165	95H7	100H7	100H7	165	240
06	110n6	210	165	105H7	110H7	110H7	165	240
07	120n6	210	195	115H7	120H7	120H7	195	280
08	130n6	250	195	125H7	130H7	130H7	195	285
09	140n6	250	235	135H7	145H7	140H7	235	330
10	160n6	300	235	150H7	155H7	150H7	235	350
11	170n6	300	270	165H7	170H7	165H7	270	400
12	180n6	300	270	180H7	185H7	180H7	270	405

Horizontal mounting dimensions

Type size	E	a	A1	A2	A3	A4	b	B1	B2	c	c1	d6	h^{0}_{-1}	h1	H	m1	m3	n1	n2	n3	n4	s	s1	Lube oil (L)	Weight (kg)
05	405	690	137	135	140	80	255	215	175	28	30±1	60	230	127.5	482	480	220	105	100	455	180	19	24	16	320
06	440	770	137	135	140	80	255	215	175	28	30±1	60	230	127.5	482	560	220	105	145	490	180	19	24	18	365
07	495	845	157	160	180	100	300	245	205	35	36±1	75	280	150	572	605	260	120	130	560	215	24	28	29	540
08	540	950	157	160	180	100	300	245	205	35	36±1	75	280	150	582	710	260	120	190	605	215	24	28	32	625
09	580	1000	182	190	205	120	370	295	240	40	45±1.5	90	320	185	662	710	320	145	155	660	245	28	36	48	875
10	630	1100	182	190	205	120	370	295	240	40	45±1.5	90	320	185	662	810	320	145	205	710	245	28	36	49	1020
11	705	1200	218	220	255	150	430	325	280	50	54±1.5	100	380	215	782	870	370	165	180	805	300	35	40	85	1400
12	775	1355	218	220	255	150	430	325	280	50	54±1.5	100	380	215	790	1025	370	165	265	875	300	35	40	90	1675

Vertical mounting dimensions

Type size	E	a	c1	e4	e5	e6	e7	f2	f3	h1	h2	m4	m5	n5	n6	P1	P2	s1	Lube oil (L)		Weight (kg)
																			(3)*	(4)*	
05	405	690	30±1	230	252	385	240	28	190	127.5	205	630	360	175	30	35	305	24	36	14	320
06	440	770	30±1	230	252	425	240	28	190	127.5	205	710	360	220	30	35	305	24	40	17	365
07	495	845	36±1	280	292	425	240	30	185	150	205	775	430	215	35	35	360	28	64	35	540
08	540	950	36±1	280	302	485	240	32	185	150	205	880	430	275	35	35	360	28	75	47	625
09	580	1000	45±1.5	320	342	560	330	32	170	185	275	920	490	260	40	40	415	36	110	55	875
10	630	1100	45±1.5	320	342	610	330	32	170	185	275	1020	490	310	40	40	415	36	120	60	1020
11	705	1200	54±1.5	380	402	595	330	35	170	215	275	1100	600	295	50	50	520	40	190	70	1400
12	775	1355	54±1.5	380	410	680	330	35	170	215	275	1255	600	380	50	50	520	40	205	80	1675

(3)* Dip oil for lubrication; (4)* forced lubrication.

Three-stage drive

Type H3...

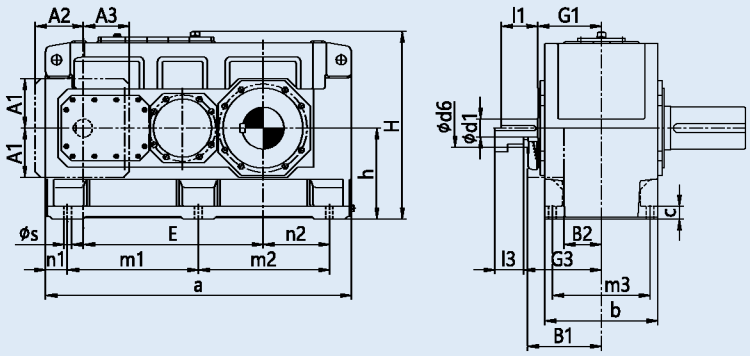
Type size 13-24

Horizontal mounting

H3.. SH

H3.. HH

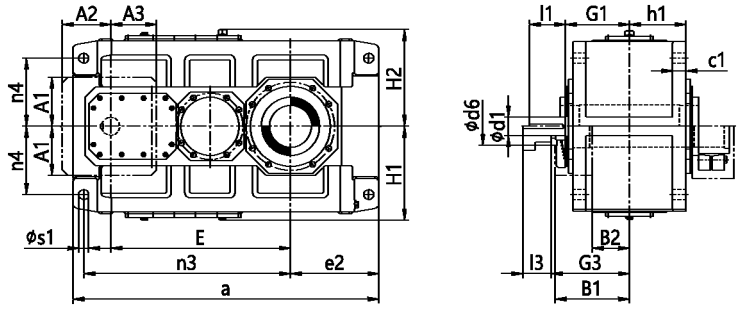
H3.. DH



Horizontal installation without foot

H3.. HM

H3.. DM

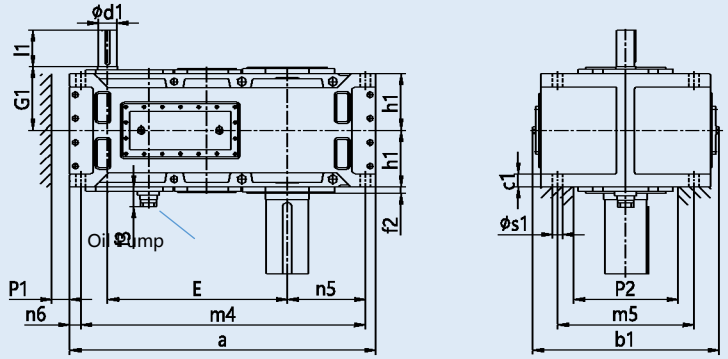


Upright mount

H3.. SV

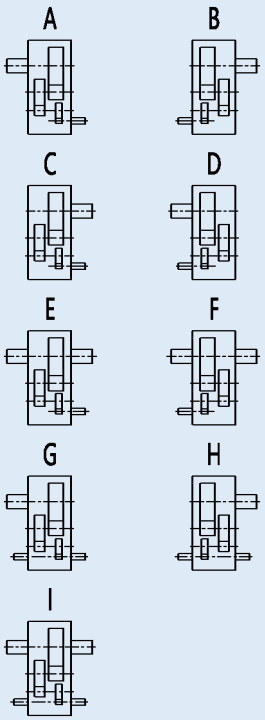
H3.. HV

H3.. DV



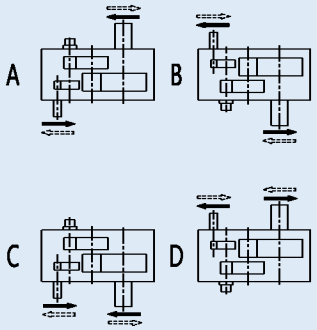
Horizontal mount H3... H / H3.. M

Layout form



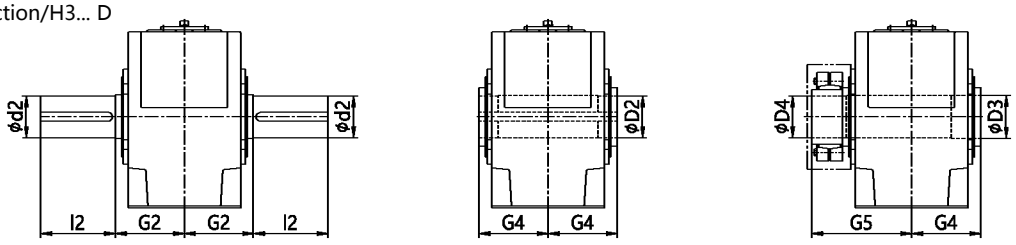
Vertical mount H3... SV / H3.. HV / H3.. DV

Layout form



Output shaft form

Solid shaft key connection/H3... S Hollow shaft key connection/H3... H hollow shaft locking disc keyless connection/H3... D



Shaft extension dimensions

Type size	Input shaft (high speed shaft)														Output shaft (low speed shaft)							
	d1		l1	l3	d1		l1	l3	d1		l1	l3	G1	G3	d2	l2	G2	D2	D3	D4	G4	G5
	Standard	Enhanced			Standard	Enhanced			Standard	Enhanced												
13	iN=22.4-45				iN=50-63				iN=71-90				310	385	200n6	350	335	190H7	195H7	190H7	335	480
	85m6	90m6	160	130	60m6	65m6	135	105	50m6	55m6	110	80										
14	iN=28-56				iN=63-80				iN=90-112				310	385	210n6	350	335	210H7	215H7	210H7	335	480
	85m6	90m6	160	130	60m6	65m6	135	105	50m6	55m6	110	80										
15	iN=22.4-45				iN=50-63				iN=71-90				350	420	230n6	410	380	230H7	235H7	230H7	380	550
	100m6	-	200	165	75m6	-	140	105	60m6	-	140	105										
16	iN=25-50				iN=56-71				iN=80-100				350	420	240n6	410	380	240H7	245H7	240H7	380	550
	100m6	-	200	165	75m6	-	140	105	60m6	-	140	105										
17	iN=22.4-45				iN=50-63				iN=71-90				380	450	250n6	410	415	250H7	260H7	250H7	415	600
	100m6	-	200	165	75m6	-	140	105	60m6	-	140	105										
18	iN=25-50				iN=56-71				iN=80-100				380	450	270n6	470	415	275H7	285H7	280H7	415	600
	100m6	-	200	165	75m6	-	140	105	60m6	-	140	105										
19	iN=22.4-45				iN=50-63				iN=71-90				430	-	290n6	470	465	-	295H7	285H7	465	670
	110n6	-	200	-	90m6	-	165	-	75m6	-	140	-										
20	iN=25-50				iN=56-71				iN=80-100				430	-	300n6	500	465	-	315H7	310H7	465	670
	110n6	-	200	-	90m6	-	165	-	75m6	-	140	-										
21	iN=22.4-45				iN=50-63				iN=71-90				470	-	320n6	500	490	-	335H7	330H7	490	715
	130n6	-	240	-	110n6	-	205	-	90m6	-	170	-										
22	iN=25-50				iN=56-71				iN=80-100				470	-	340n6	550	490	-	345H7	340H7	490	725
	130n6	-	240	-	110n6	-	205	-	90m6	-	170	-										
23	iN=22.4-45				iN=50-63				iN=71-90				510	-	360n6	590	540	-	365H7	360H7	540	785
	130n6	-	240	-	110n6	-	205	-	90m6	-	170	-										
24	iN=25-50				iN=56-71				iN=80-100				510	-	380n6	590	540	-	385H7	380H7	540	805
	130n6	-	240	-	110n6	-	205	-	90m6	-	170	-										

Horizontal mounting dimensions

Type size	E	a	A1	A2	A3	b	B1	B2	c	c1	d6	h^{0}_{-1}	h1	H	H1	H2	m1	m2	m3	n1	n2	n3	n4	s	s1	Lube oil (L)		Weight (kg)	
																										H3..H	H3..M	H3..H	H3..M
13	820	1395	225	225	212	550	380	195	60	61±2	120	440	272.5	900	450	460	597.5	597.5	475	100	305	940	340	35	48H9	160	125	2295	2155
14	890	1535	225	225	212	550	380	195	60	61±2	120	440	272.5	900	450	460	597.5	737.5	475	100	375	1010	340	35	48H9	165	130	2625	2490
15	987	1680	270	265	252	625	415	205	70	72±2	150	500	310	1000	490	500	720	720	535	120	365	1135	375	42	55H9	235	190	3475	3260
16	1033	1770	270	265	252	625	415	205	70	72±2	150	500	310	1000	490	500	720	810	535	120	410	1180	375	42	55H9	245	195	3875	3625
17	1035	1770	270	265	252	690	445	235	80	81±2	150	550	340	1110	555	560	750	750	600	135	390	1175	425	42	55H9	305	240	4560	4250
18	1095	1890	270	265	252	690	445	235	80	81±2	150	550	340	1110	555	560	750	870	600	135	450	1235	425	42	55H9	315	250	5030	4740
19	1190	2030	-	-	-	790	-	-	90	91±2	*	620	390	1240	615	620	860	860	690	155	435	1365	475	48	65H9	420	390	6700	6200
20	1250	2150	-	-	-	790	-	-	90	91±2	*	620	390	1240	615	620	860	980	690	155	495	1425	475	48	65H9	450	415	8100	7600
21	1387	2340	-	-	-	830	-	-	100	100±2	*	700	410	1390	685	690	1000	1000	720	170	485	1600	520	56	75H9	470	515	9100	8500
22	1442	2450	-	-	-	830	-	-	100	100±2	*	700	410	1390	685	690	1000	1110	720	170	540	1655	520	56	75H9	490	540	9800	9300
23	1505	2530	-	-	-	930	-	-	115	120±2	-	780	462	1570	770	790	1085	1085	810	180	550	1725	580	56	80H9	620	690	11500	10600
24	1570	2660	-	-	-	930	-	-	115	120±2	-	780	462	1570	770	790	1085	1215	810	180	615	1790	580	56	80H9	650	725	13400	12500

Vertical mounting dimensions

Type size	E	a	b1	c1	f2	f3	h1	m4	m5	n5	n6	P1	P2	s1	Lube oil (L)	Weight (kg)
13	820	1395	900	61±2	35	170	272.5	1300	680	360	50	50	540	48	120	2155
14	890	1535	900	61±2	35	170	272.5	1440	680	430	50	50	540	48	140	2490
15	987	1680	980	72±2	42	170	310	1565	750	430	60	50	570	55	200	3260
16	1033	1770	980	72±2	42	170	310	1655	750	475	60	50	570	55	220	3625
17	1035	1770	1110	81±2	42	210	340	1640	850	465	70	70	630	55	240	4250
18	1095	1890	1110	81±2	42	210	340	1760	850	525	70	70	630	55	250	4740
19-24 Supply on request																

4 H4.. Product parameters

4.1 H4.. Rated input power P1N (kW) table

Type size		07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
i N	n1																		
100	1800	43		71		122		178		295	333	392	466	605		854		1230	1438
	1500	36		59		102		148		246	278	327	388	504		712		1025	1199
	1200	29		47		81		119		197	222	261	310	403		570		820	959
	1000	24		40		68		99		164	185	218	259	336		475		683	799
112	1800	38		65		109		165		276	295	366	412	533	611	775	869	1116	1246
	1500	32		54		91		137		230	246	305	343	444	509	646	724	930	1038
	1200	25		43		73		110		184	196	244	274	355	407	517	579	744	830
	1000	21		36		61		92		153	164	204	229	296	339	431	483	620	692
125	1800	35	44	57	72	95	127	140	183	244	275	324	385	482	538	671	789	965	1130
	1500	29	37	47	60	79	106	117	152	203	230	270	321	401	449	559	657	804	942
	1200	23	30	38	48	63	85	93	122	163	184	216	256	321	359	448	526	643	753
	1000	19	25	31	40	53	71	78	101	135	153	180	214	268	299	373	438	536	628
140	1800	31	39	52	66	85	114	130	169	216	244	287	340	424	486	609	683	875	977
	1500	25	33	43	55	71	95	108	141	180	203	240	283	354	405	508	569	729	814
	1200	20	26	35	44	57	76	86	113	144	162	192	227	283	324	406	455	584	651
	1000	17	22	29	37	47	63	72	94	120	135	160	189	236	270	338	379	486	543
160	1800	28	36	45	57	78	99	110	143	191	216	254	302	378	429	527	620	779	886
	1500	23	30	38	48	65	83	91	120	159	180	212	251	315	357	439	516	649	739
	1200	19	24	30	38	52	66	73	96	128	144	169	201	252	286	351	413	519	591
	1000	15	20	25	32	43	55	61	80	106	120	141	168	210	238	293	344	433	492
180	1800	24	31	42	53	70	89	102	133	168	191	223	267	333	381	478	536	707	789
	1500	20	26	35	44	58	74	85	111	140	159	186	222	277	318	398	446	589	657
	1200	16	21	28	35	46	59	68	89	112	127	149	178	222	254	319	357	471	526
	1000	14	17	23	29	39	49	56	74	93	106	124	148	185	212	265	298	393	438
200	1800	22	28	36	46	61	81	89	113	148	168	197	234	302	336	425	486	622	716
	1500	18	24	30	38	51	68	74	94	124	140	164	195	252	280	354	405	518	596
	1200	15	19	24	31	41	54	59	75	99	112	131	156	201	224	283	324	415	477
	1000	12	16	20	25	34	45	49	63	82	93	110	130	168	187	236	270	346	398
224	1800	19	25	33	42	54	73	82	104	136	148	180	207	266	305	386	433	550	630
	1500	16	21	28	35	45	60	69	87	113	124	150	173	222	254	321	360	458	525
	1200	13	17	22	28	36	48	55	69	90	99	120	138	177	203	257	288	367	420
	1000	11	14	18	23	30	40	46	58	75	82	100	115	148	169	214	240	305	350
250	1800	17	23	29	36	49	63	72	91	121	135	161	189	233	269	340	392	502	557
	1500	14	19	24	30	41	53	60	76	101	113	134	157	194	224	283	327	418	464
	1200	11	15	19	24	33	42	48	61	81	90	107	126	155	179	226	262	334	371
	1000	9.5	13	16	20	27	35	40	51	67	75	89	105	129	149	189	218	279	309
280	1800	15	20	26	33	44	57	66	84	108	121	144	169	216	235	300	345	446	508
	1500	13	17	21	28	36	47	55	70	90	101	120	141	180	196	250	288	372	423
	1200	10	13	17	22	29	38	44	56	72	81	96	113	144	157	200	230	298	339
	1000	8.6	11	14	19	24	32	37	47	60	67	80	94	120	131	167	192	248	282
315	1800	14	18	23	29	38	51	57	74	95	108	126	151	192	218	274	305		452
	1500	12	15	19	24	32	43	47	61	79	90	105	126	160	181	228	254		377
	1200	9.2	12	15	20	25	34	38	49	63	72	84	101	128	145	183	204		301
	1000	7.7	10	13	16	21	29	32	41	53	60	70	84	107	121	152	170		251
355	1800	12	16	21	26	35	45	52	67		94		132	164	194	244	279		
	1500	10	13	18	22	29	38	44	56		79		110	137	162	203	232		
	1200	8.2	11	14	17	23	30	35	45		63		88	109	129	162	186		
	1000	6.8	8.8	12	14	20	25	29	37		52		73	91	108	135	155		
400	1800		14		23		40		58						166		248		
	1500		12		19		33		49						139		207		
	1200		9.5		16		26		39						111		165		
	1000		7.9		13		22		32						92		138		
450	1800		13		22		37		54										
	1500		10		18		31		45										
	1200		8.4		14		24		36										
	1000		7.0		12		20		30										
Type size		07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

4.2 H4.. Nominal output torque T2N (kN•m) table

Type size	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
i N	Nominal output torque capacity of the T2N gearbox (kN•m)																	
100	21.7		36		63.5		93		153	173	200	240	300		420		640	725
112	21.7		36		63.5		93		153	173	200	240	300	345	420	470	640	725
125	21.7	27.5	36	45	63.5	78	93	115	153	173	200	240	300	345	420	470	640	725
140	21.7	27.5	36	45	63.5	78	93	115	153	173	200	240	300	345	420	470	640	725
160	21.7	27.5	36	45	63.5	78	93	115	153	173	200	240	300	345	420	470	640	725
180	21.7	27.5	36	45	63.5	78	93	115	153	173	200	240	300	345	420	470	640	725
200	21.7	27.5	36	45	63.5	78	93	115	153	173	200	240	300	345	420	470	640	725
224	21.7	27.5	36	45	63.5	78	93	115	153	173	200	240	300	345	420	470	640	725
250	21.7	27.5	36	45	63.5	78	93	115	153	173	200	240	300	345	420	470	640	725
280	21.7	27.5	36	45	63.5	78	93	115	153	173	200	240	300	345	420	470	640	725
315	21.7	27.5	36	45	63.5	78	93	115	153	173	200	240	300	345	420	470		725
355	21.7	27.5	36	45	63.5	78	93	115		173		240	290	345	420	470		
400		27.5		45		78		115						335		470		
450		27.5		45		78		115										

4.3 H4.. Actual gear ratio i table

Type size	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
i N	Actual gear ratio i																	
100	100.15		101.24		104.09		104.59		103.79	103.90	102.17	103.22	99.34		98.42		104.19	100.93
112	113.60		110.49		116.33		112.92		111.05	117.52	109.32	116.76	112.68	113.14	108.47	108.26	114.83	116.55
125	125.18	123.79	127.13	125.21	133.56	122.63	133.12	126.08	125.62	125.75	123.65	124.93	124.75	128.33	125.26	119.32	132.84	128.45
140	142.00	140.42	138.75	136.66	149.27	137.05	143.72	136.13	141.54	142.24	139.32	141.32	141.51	142.08	138.06	137.79	146.41	148.60
160	156.48	154.74	158.92	157.24	163.40	157.34	169.73	160.47	160.10	160.27	157.60	159.23	159.06	161.16	159.71	151.86	164.51	163.78
180	177.50	175.53	173.44	171.62	182.61	175.85	183.24	173.25	182.42	181.29	179.57	180.11	180.42	181.15	176.02	175.68	181.31	184.03
200	196.72	193.43	199.78	196.55	209.15	192.50	209.66	204.60	206.35	206.57	203.12	205.23	199.01	205.48	197.78	193.62	206.02	202.82
224	223.14	219.41	218.04	214.52	233.74	215.13	226.36	220.89	226.02	233.66	222.49	232.14	225.74	226.65	217.98	217.56	233.04	230.46
250	254.11	243.17	248.29	247.10	257.58	246.39	259.49	252.74	252.60	255.94	248.65	254.27	258.05	257.09	247.69	239.78	255.50	260.69
280	280.62	275.83	281.59	269.68	292.18	275.37	283.21	272.87	283.12	286.03	278.70	284.17	278.60	293.88	280.17	272.46	287.08	285.81
315	313.89	314.10	312.19	307.10	334.47	303.45	327.36	312.81	323.96	320.59	318.90	318.51	312.81	317.29	307.17	308.19		321.13
355	355.00	346.88	338.72	348.28	361.17	344.21	355.07	341.40		366.84		364.46	353.77	356.25	345.14	337.89		
400		388.01		386.13		394.03		394.63						402.91		379.65		
450		438.82		418.94		425.48		428.03										

4.4 H4.. Thermal power PG (kW) meter

Thermal power capacity of PGA gearbox without heat dissipation measures

Type size / i N	07	08	09	10	11	12	13	14	15	16	17	18
100	51		71		102		134		182	192	213	227
112	51		71		101		134		182	190	213	225
125	50	56	71	77	100	113	131	145	181	190	212	225
140	50	56	71	77	100	111	131	145	177	189	207	224
160	49	55	69	77	100	111	130	141	177	185	207	218
180	49	55	69	77	98	110	130	141	175	185	205	218
200	49	54	68	75	97	110	128	140	175	183	205	217
224	48	54	68	74	96	109	127	140	173	183	202	217
250	48	54	67	74	96	107	126	138	171	180	202	213
280	48	53	67	74	96	107	126	137	170	179	199	213
315	48	53	67	73	95	107	125	136	170	178	199	210
355	47	53	67	73	95	106	123	136		177		210
400		53		72		105		136				
450		52		72		105		133				

Note: For details, please contact us about thermal power capability for Type size ≥19.

4.5 H4.. Interface size

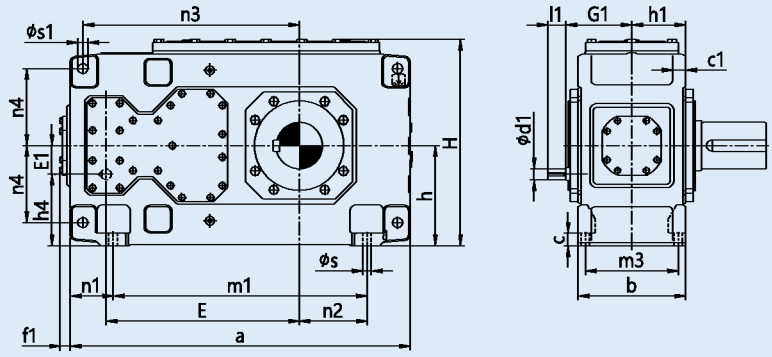
Four-stage drive

Type H4..

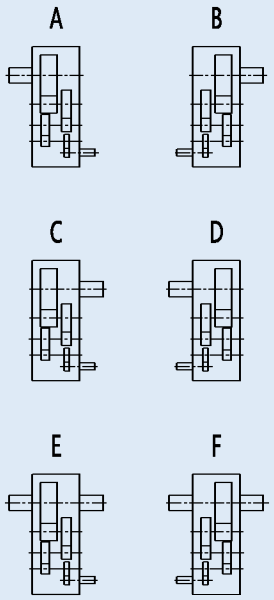
Type sizes 7-12

Horizontal mount

H4.. SH
H4.. HH
H4.. DH
H4.. HM
H4.. DM

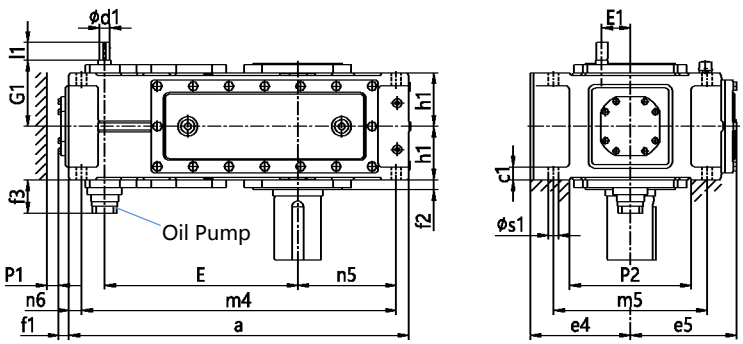


Horizontal mount H4... H / H4.. M
Layout form



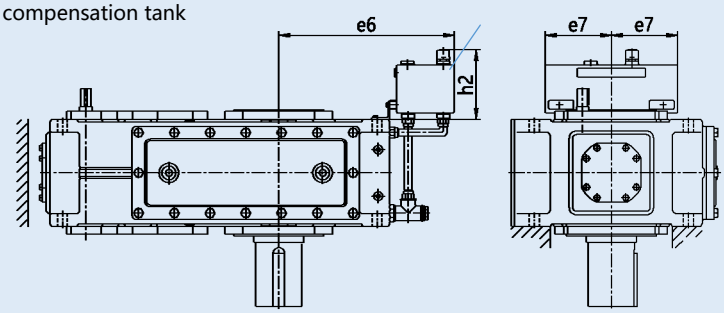
Vertical mount (with circulating pump)

H4.. SV
H4.. HV
H4.. DV

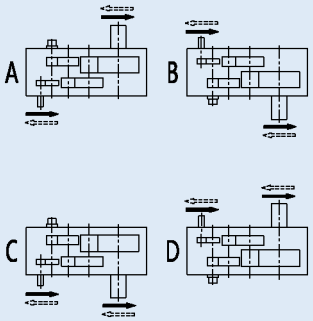


Upright mount (with compensating tank)

H4.. SV
H4.. HV
H4.. DV compensation tank

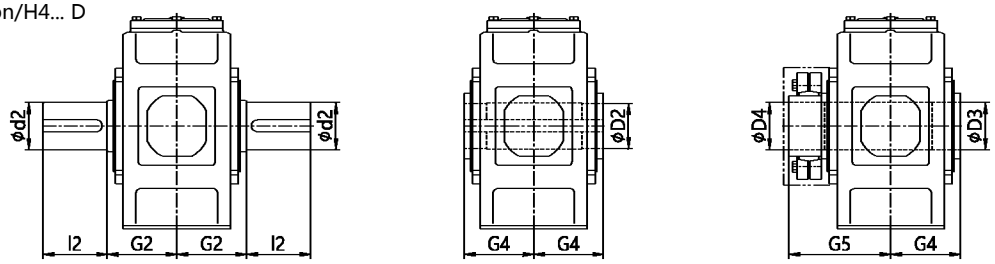


Vertical mount H4... SV / H4.. HV / H4.. DV
Layout form



Output shaft form

Solid shaft key connection/H4... S Hollow shaft key connection/H4... H hollow shaft locking disc keyless connection/H4... D



Shaft extension dimensions

Type size	Input shaft (high speed shaft)									Output shaft (low speed shaft)							
	iN=100-180		iN=125-224		iN=200-355		iN=250-450		G1	d2	l2	G2	D2	D3	D4	G4	G5
	d1	l1	d1	l1	d1	l1	d1	l1									
07	30m6	50			24k6	40			180	120n6	210	195	115H7	120H7	120H7	195	280
08			30m6	50			24k6	40	180	130n6	250	195	125H7	130H7	130H7	195	285
09	35m6	60			28m6	50			215	140n6	250	235	135H7	145H7	140H7	235	330
10			35m6	60			28m6	50	215	160n6	300	235	150H7	155H7	150H7	235	350
11	45m6	100			32m6	80			250	170n6	300	270	165H7	170H7	165H7	270	400
12			45m6	100			32m6	80	250	180n6	300	270	180H7	185H7	180H7	270	405

Horizontal mounting dimensions

Type size	E	E1	a	b	c	c1	f1	h^{0}_{-1}	h1	h4	H	m1	m3	n1	n2	n3	n4	s	s1	Lube oil (L)	Weight (kg)
07	495	80	845	300	35	36±1	37	280	150	200	572	605	260	120	130	560	215	24	28H9	25	550
08	540	80	950	300	35	36±1	37	280	150	200	582	710	260	120	190	605	215	24	28H9	27	645
09	580	90	1000	370	40	45±1.5	43	320	185	230	662	710	320	145	155	660	245	28	36H9	48	875
10	630	90	1100	370	40	45±1.5	43	320	185	230	662	810	320	145	205	710	245	28	36H9	50	1010
11	705	110	1200	430	50	54±1.5	47	380	215	270	782	870	370	165	180	805	300	35	40H9	80	1460
12	775	110	1355	430	50	54±1.5	47	380	215	270	790	1025	370	165	265	875	300	35	40H9	87	1725

Vertical mounting dimensions

Type size	E	E1	a	c1	e4	e5	e6	e7	f1	f2	f3	h1	h2	m4	m5	n5	n6	P1	P2	s1	Lube oil (L)		Weight (kg)
																					(3)*	(4)*	
07	495	80	845	36±1	280	292	425	240	37	30	160	150	205	775	430	215	35	35	360	28	60	30	550
08	540	80	950	36±1	280	302	485	240	37	32	160	150	205	880	430	275	35	35	360	28	65	35	645
09	580	90	1000	45±	320	342	560	330	43	32	170	185	275	920	490	260	40	40	415	36	105	45	875
10	630	90	1100	45±	320	342	610	330	43	32	170	185	275	1020	490	310	40	40	415	36	120	60	1010
11	705	110	1200	54±	380	402	595	330	47	35	170	215	275	1100	600	295	50	50	520	40	175	80	1460
12	775	110	1355	54±	380	410	680	330	47	35	170	215	275	1255	600	380	50	50	520	40	200	95	1725

(3)* Dip oil for lubrication; (4)* forced lubrication.

Type size	E	E1	a	c1	e4	e5	e6	e7	f1	f2	f3	h1	h2	m4	m5	n5	n6	P1	P2	s1	Lube oil (L)		Weight (kg)
																					(3) *	(4) *	
07	495	80	845	36±1	280	292	425	240	37	30	160	150	205	775	430	215	35	35	360	28	60	30	550
08	540	80	950	36±1	280	302	485	240	37	32	160	150	205	880	430	275	35	35	360	28	65	35	645
09	580	90	1000	45±	320	342	560	330	43	32	170	185	275	920	490	260	40	40	415	36	105	45	875
10	630	90	1100	45±	320	342	610	330	43	32	170	185	275	1020	490	310	40	40	415	36	120	60	1010
11	705	110	1200	54±	380	402	595	330	47	35	170	215	275	1100	600	295	50	50	520	40	175	80	1460
12	775	110	1355	54±	380	410	680	330	47	35	170	215	275	1255	600	380	50	50	520	40	200	95	1725

(3)* Dip oil for lubrication; (4)* forced lubrication.

Four-stage drive

Type H4..

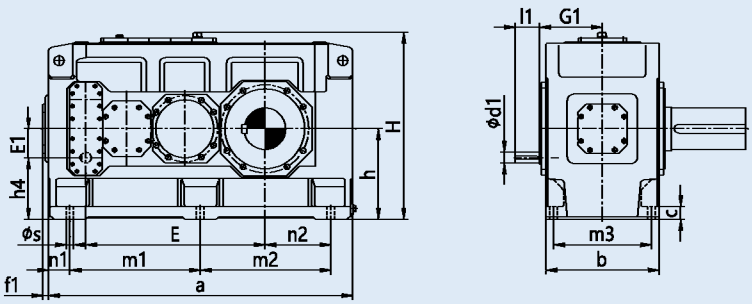
Type size 13-24

Horizontal mount

H4.. SH

H4.. HH

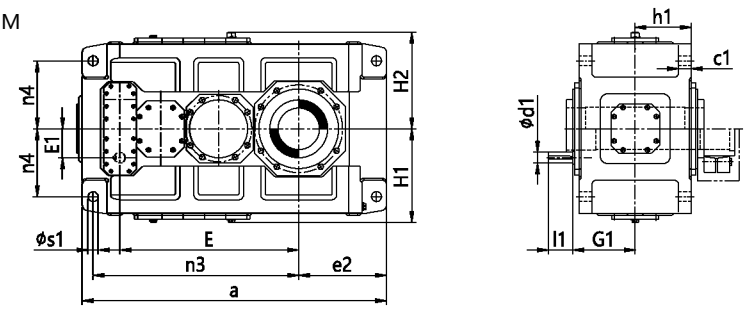
H4.. DH



Horizontal installation without foot

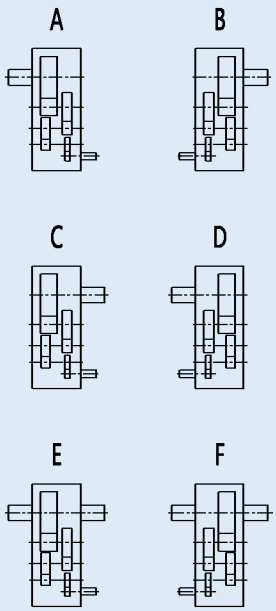
H4.. HM

H4.. DM



Horizontal mount H4... H / H4.. M

Layout form

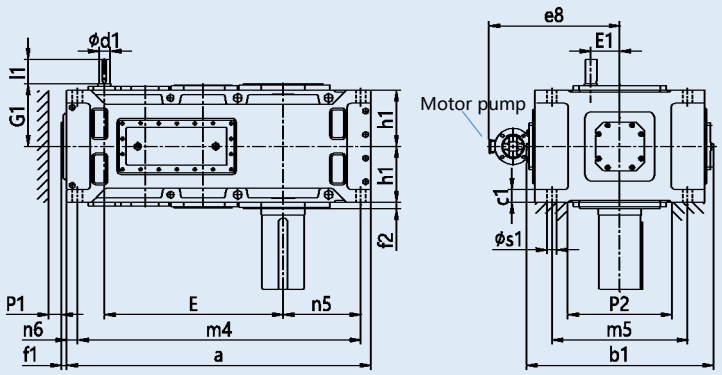


Upright mount

H4.. SV

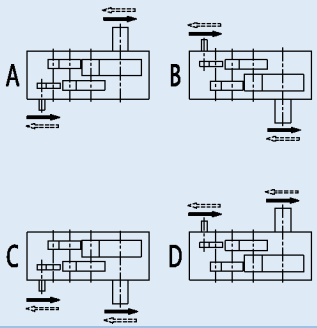
H4.. HV

H4.. DV



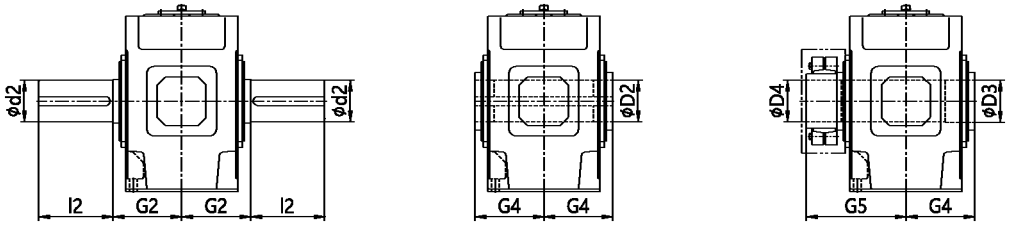
Vertical mount H4... SV / H4.. HV / H4.. DV

Layout form



Output shaft form

Solid shaft key connection/H4... S Hollow shaft key connection/H4... H hollow shaft locking disc keyless connection/H4... D



Shaft extension dimensions

Type size	Input shaft (high speed shaft)													Output shaft (low speed shaft)							
	iN=100-180		iN=112-200		iN=125-224		iN=200-355		iN=224-400		iN=250-450		G1	d2	l2	G2	D2	D3	D4	G4	G5
	d1	l1	d1	l1	d1	l1	d1	l1	d1	l1	d1	l1									
13	50m6	100					38m6	80					305	200n6	350	335	190H7	195H7	190H7	335	480
14					50m6	100					38m6	80	305	210n6	350	335	210H7	215H7	210H7	335	480
15	60m6	135					50m6	110					345	230n6	410	380	230H7	235H7	230H7	380	550
16			60m6	135					50m6	110			345	240n6	410	380	240H7	245H7	240H7	380	550
17	60m6	105					50m6	80					380	250n6	410	415	250H7	260H7	250H7	415	600
18			60m6	105					50m6	80			380	270n6	470	415	275H7	285H7	280H7	415	600
19	75m6	105					60m6	105					440	290n6	470	465	-	295H7	285H7	465	670
20			75m6	105					60m6	105			440	300n6	500	465	-	315H7	310H7	465	670
21	90m6	165					70m6	140					460	320n6	500	490	-	335H7	330H7	490	715
22			90m6	165					70m6	140			460	340n6	550	490	-	345H7	340H7	490	725
23	90m6	130					70m6	105					505	360n6	590	540	-	365H7	360H7	540	785
24			90m6	130					70m6	105			505	380n6	590	540	-	385H7	380H7	540	805

Horizontal mounting dimensions

Type size	E	E1	a	b	c	c1	e2	f1	h^{0}_{-1}	h1	h4	H	H1	H2	m1	m2	m3	n1	n2	n3	n4	s	s1	Lube oil (L)		Weight (kg)	
																								H4.. H	H4.. M	H4.. H	H4.. M
13	820	130	1395	550	60	61±2	405	47	440	272.5	310	900	450	460	597.5	597.5	475	100	305	940	340	35	48H9	130	120	2390	2270
14	890	130	1535	550	60	61±2	475	47	440	272.5	310	900	450	460	597.5	737.5	475	100	375	1010	340	35	48H9	140	125	2730	2600
15	987	160	1680	625	70	72±2	485	56	500	310	340	1000	490	500	720	720	535	120	365	1135	375	42	55H9	230	170	3635	3440
16	1033	160	1770	625	70	72±2	530	56	500	310	340	1000	490	500	720	810	535	120	410	1180	375	42	55H9	235	175	3965	3740
17	1035	160	1770	690	80	81±2	525	53	550	340	390	1110	555	560	750	750	600	135	390	1175	425	42	55H9	290	225	4680	4445
18	1095	160	1890	690	80	81±2	585	53	550	340	390	1110	555	560	750	870	600	135	450	1235	425	42	55H9	305	230	5185	4915
19	1190	185	2030	790	90	91±2	590	53	620	390	435	1240	615	620	860	860	690	155	435	1365	475	48	65H9	430	310	6800	6300
20	1250	185	2150	790	90	91±2	650	53	620	390	435	1240	615	620	860	980	690	155	495	1425	475	48	65H9	380	330	8200	7700
21	1387	225	2340	830	100	100±2	655	62	700	410	475	1390	685	690	1000	1000	720	170	485	1600	520	56	75H9	395	430	9200	8600
22	1442	225	2450	830	100	100±2	710	62	700	410	475	1390	685	690	1000	1110	720	170	540	1655	520	56	75H9	420	450	9900	9400
23	1505	225	2530	930	115	120±2	730	35	780	462	555	1570	770	790	1085	1085	810	180	550	1725	580	56	80H9	520	500	11600	10700
24	1570	225	2660	930	115	120±2	795	35	780	462	555	1570	770	790	1085	1215	810	180	615	1790	580	56	80H9	550	600	13500	12600

Vertical mounting dimensions

Type size	E	a	b1	c1	E1	e8	f1	f2	h1	m4	m5	n5	n6	P1	P2	s1	Lube oil (L)	Weight (kg)
13	820	1395	900	61±2	130	690	47	35	272.5	1300	680	360	50	50	540	48	110	2270
14	890	1535	900	61±2	130	690	47	35	272.5	1440	680	430	50	50	540	48	120	2600
15	987	1680	980	72±2	160	730	56	42	310	1565	750	430	60	60	570	55	170	3440
16	1033	1770	980	72±2	160	730	56	42	310	1655	750	475	60	60	570	55	180	3740
17	1035	1770	1110	81±2	160	790	53	42	340	1640	850	465	70	70	630	55	220	4445
18	1095	1890	1110	81±2	160	790	53	42	340	1760	850	525	70	70	630	55	230	4915
19-24 Supply on request																		

5 B2.. Product parameters

5.1 B2.. Rated input power P1N (kW) table

Type size		04	05	06	07	08	09	10	11	12
i N	n1									
5	1800	233	369		724		1156		1818	
	1500	194	308		603		963		1515	
	1200	155	246		483		771		1212	
	1000	129	205		402		642		1010	
5.6	1800	207	319		662		1034		1666	
	1500	173	265		552		862		1388	
	1200	138	212		441		689		1111	
	1000	115	177		368		575		925	
6.3	1800	189	289	376	582	727	934	1189	1543	1833
	1500	158	241	313	485	606	778	991	1286	1527
	1200	126	193	251	388	485	622	793	1028	1222
	1000	105	161	209	323	404	519	661	857	1018
7.1	1800	166	250	334	532	669	835	1063	1412	1669
	1500	138	208	278	444	558	696	886	1176	1391
	1200	110	166	222	355	446	557	708	941	1113
	1000	92	139	185	296	372	464	590	784	927
8	1800	150	234	295	473	585	714	960	1307	1530
	1500	125	195	246	394	487	595	800	1089	1275
	1200	100	156	196	316	390	476	640	871	1020
	1000	83	130	164	263	325	396	534	726	850
9	1800	131	202	262	433	538	639	858	1146	1390
	1500	109	168	218	361	448	532	715	955	1158
	1200	88	135	174	289	359	426	572	764	926
	1000	73	112	145	240	299	355	477	637	772
10	1800	122	185	238	363	476	579	734	1061	1266
	1500	101	154	199	302	396	483	612	884	1055
	1200	81	123	159	242	317	386	490	707	844
	1000	68	103	132	201	264	322	408	589	703
11.2	1800	107	160	212	332	437	518	656	930	1113
	1500	89	133	176	276	365	432	547	775	927
	1200	71	106	141	221	292	345	437	620	742
	1000	59	89	118	184	243	288	365	516	618
12.5	1800			188		364		596		1027
	1500			157		304		496		856
	1200			126		243		397		685
	1000			105		202		331		571
14	1800			167		335		532		903
	1500			139		279		444		753
	1200			111		223		355		602
	1000			93		186		296		502
Type size		04	05	06	07	08	09	10	11	12

5.2 B2.. Nominal output torque T2N (kN•m) table

Type size	04	05	06	07	08	09	10	11	12
i N	Nominal output torque capacity of the T2N gearbox (kN•m)								
5	6.1	9.4		19		29.9		46	
5.6	6.2	9.4		19		29.9		48.1	
6.3	6.2	9.4	12	19	23.8	29.9	38	50.2	58.8
7.1	6.2	9.4	12	19	23.8	29.9	38	52.4	60.9
8	6.2	9.4	12	19	23.8	29.9	38	54	63.1
9	6.2	9.4	12	19	23.8	29.9	38	54	65.2
10	6.2	9.4	12	19	23.8	29.9	38	54	66.3
11.2	6.2	9.4	12	19	23.8	29.9	38	54	66.3
12.5			12		23.8		38		66.3
14			12		23.8		38		66.3

5.3 B2.. Actual gear ratio i table

Type size	04	05	06	07	08	09	10	11	12
i N	Actual gear ratio i								
5	5.14	5.00		5.15		5.08		4.97	
5.6	5.87	5.79		5.63		5.67		5.67	
6.3	6.44	6.38	6.27	6.41	6.42	6.29	6.27	6.39	6.30
7.1	7.34	7.39	7.06	7.01	6.98	7.03	7.02	7.29	7.16
8	8.12	7.88	7.99	7.88	7.99	8.22	7.76	8.11	8.10
9	9.26	9.13	9.01	8.61	8.68	9.19	8.69	9.25	9.21
10	10.01	9.98	9.88	10.28	9.82	10.13	10.16	9.99	10.28
11.2	11.42	11.56	11.13	11.24	10.68	11.33	11.37	11.40	11.69
12.5			12.51		12.82		12.52		12.67
14			14.09		13.93		14.01		14.41

5.4 B2.. Thermal power PG (kW) meter

Thermal power capacity of PGA gearbox without heat dissipation measures

Type size / i N	04	05	06	07	08	09	10	11	12
5	43	57		83		114		163	
5.6	43	57		83		113		162	
6.3	43	56	63	83	93	113	124	161	183
7.1	43	56	63	83	93	113	124	161	181
8	42	56	62	82	93	112	123	161	180
9	42	56	62	82	92	112	123	160	180
10	41	55	62	82	92	111	123	160	180
11.2	41	55	62	82	92	111	123	158	180
12.5			61		92		122		179
14			61		91		122		178

Thermal power capacity of PGB gearbox with cooling fan

Type size		04	05	06	07	08	09	10	11	12
i N	n1									
5	1000	92	122		179		243		349	
	1200	109	144		211		288		413	
	1500	134	177		260		354		508	
	1800	159	210		308		420		603	
5.6	1000	91	121		179		242		346	
	1200	108	143		211		286		409	
	1500	133	176		260		352		503	
	1800	157	209		308		418		598	
6.3	1000	91	120	134	178	199	242	266	344	391
	1200	108	142	159	210	235	286	314	407	462
	1500	133	175	195	259	289	352	387	501	569
	1800	157	207	232	307	343	418	459	594	675
7.1	1000	91	120	134	178	199	242	265	344	388
	1200	108	142	158	210	235	286	313	407	459
	1500	133	175	195	258	289	352	384	501	564
	1800	157	207	231	306	343	418	456	594	670
8	1000	89	120	133	176	198	241	264	344	386
	1200	106	142	157	208	234	284	312	407	456
	1500	130	175	193	256	288	350	384	500	561
	1800	154	207	229	304	342	415	456	594	666
9	1000	89	119	133	176	198	241	264	343	386
	1200	106	141	157	208	234	284	312	406	456
	1500	130	173	193	256	288	350	384	499	561
	1800	154	206	229	304	341	415	456	592	666
10	1000	89	118	133	176	196	239	263	342	386
	1200	105	139	157	208	232	282	310	404	456
	1500	129	171	193	256	285	347	382	497	561
	1800	153	203	229	304	339	412	453	590	666
11.2	1000	89	118	132	175	196	239	263	339	385
	1200	105	139	156	206	232	282	310	401	454
	1500	129	171	192	254	285	347	382	493	559
	1800	153	203	227	301	339	412	453	586	664
12.5	1000			130		196		261		383
	1200			154		232		308		453
	1500			189		285		379		557
	1800			224		338		450		662
14	1000			130		195		261		380
	1200			154		230		308		449
	1500			189		283		379		553
	1800			224		336		450		656
Type size		04	05	06	07	08	09	10	11	12

5.5 B2.. Interface size

Two-stage drive

Type B2..

Type sizes 4-12

Horizontal mount

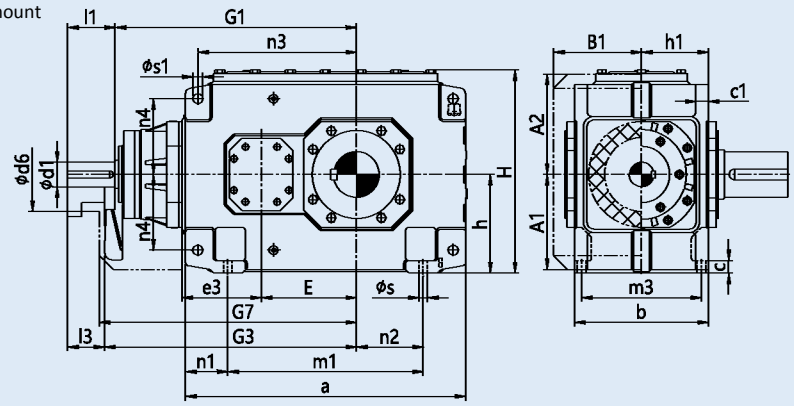
B2.. SH

B2.. HH

B2.. DH

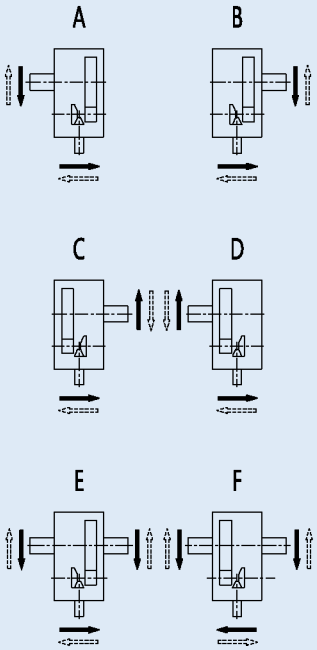
B2.. HM

B2.. DM



Horizontal mount B2.. H / B2.. M

Layout form

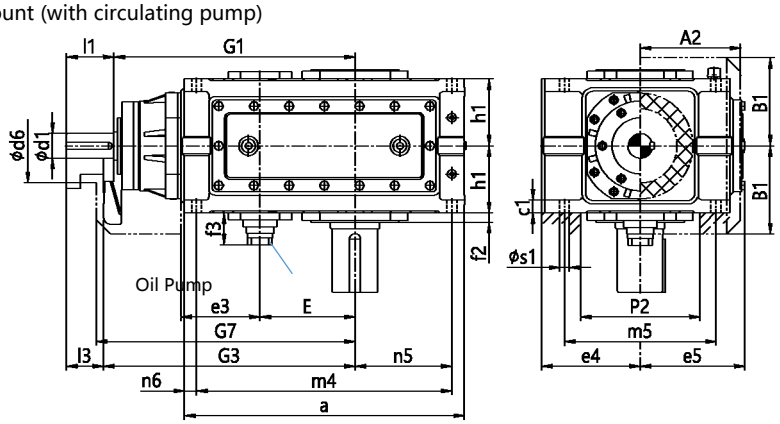


Vertical mount (with circulating pump)

B2.. SV

B2.. HV

B2.. DV

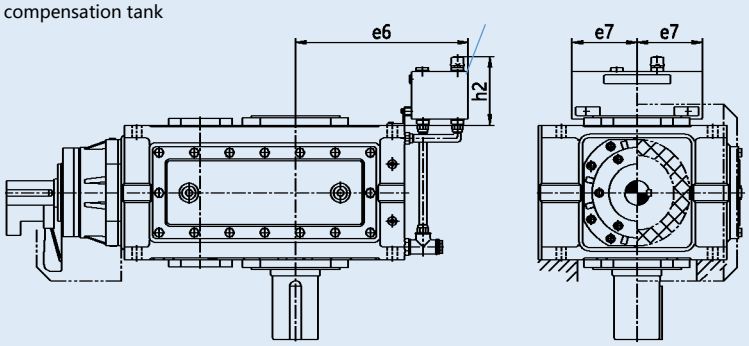


Upright mount (with compensating tank)

B2.. SV

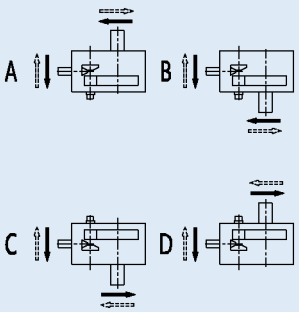
B2.. HV compensation tank

B2.. DV



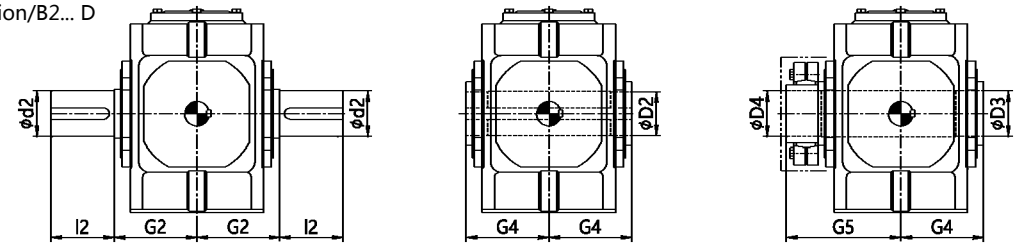
Vertical mount B2.. SV / B2.. HV / B2.. DV

Layout form



Output shaft form

Solid shaft key connection/B2... S Hollow shaft key connection/B2... H hollow shaft locking disc keyless connection/B2... D



Shaft extension dimensions

Type size	Input shaft (high speed shaft)										Output shaft (low speed shaft)							
	IN = 5-11.2				IN = 6.3-14				G1	G3	d2	l2	G2	D2	D3	D4	G4	G5
	d1		l1	l3	d1		l1	l3										
	Standard	Enhanced			Standard	Enhanced												
04	45m6	50m6	100	80					465	485	80m6	170	170	80H7	85H7	85H7	170	235
05	55m6	60m6	110	80					535	565	100m6	210	200	95H7	100H7	100H7	200	275
06					55m6	60m6	110	80	570	600	110n6	210	200	105H7	110H7	110H7	200	275
07	70m6	75m6	135	105					640	670	120n6	210	235	115H7	120H7	120H7	235	320
08					70m6	75m6	135	105	685	715	130n6	250	235	125H7	130H7	130H7	235	325
09	80m6	85m6	165	130					755	790	140n6	250	270	135H7	145H7	140H7	270	365
10					80m6	85m6	165	130	805	840	160n6	300	270	150H7	155H7	150H7	270	385
11	90m6	95m6	165	130					925	960	170n6	300	320	165H7	170H7	165H7	320	450
12					90m6	95m6	165	130	995	1030	180n6	300	320	180H7	185H7	180H7	320	455

Horizontal mounting dimensions

Type size	E	a	A1	A2	b	B1	c	c1	d6	e3	G7	h^{0}_{-1}	h1	H	m1	m3	n1	n2	n3	n4	s	s1	Lube oil (L)	Weight (kg)
04	160	505	195	200	270	188	28	30±1	150	160	495	200	135	415	295	235	105	85	285	150	19	24H9	10	235
05	185	565	220	235	320	215	28	30±1	160	185	575	230	160	482	355	285	105	100	330	180	19	24H9	16	360
06	220	645	220	235	320	215	28	30±1	160	185	610	230	160	482	435	285	105	145	365	180	19	24H9	19	410
07	225	690	270	285	380	250	35	36±1	210	225	685	280	190	582	450	340	120	130	405	215	24	28H9	31	615
08	270	795	270	285	380	250	35	36±1	210	225	730	280	190	582	555	340	120	190	450	215	24	28H9	34	700
09	265	820	310	325	440	270	40	48±1.5	195	265	805	320	220	662	530	390	145	155	480	245	28	36H9	48	1000
10	315	920	310	325	440	270	40	48±1.5	195	265	855	320	220	662	630	390	145	205	530	245	28	36H9	50	1155
11	320	975	370	385	530	328	50	54±1.5	210	320	980	380	265	790	645	470	165	180	580	300	35	40H9	80	1640
12	390	1130	370	385	530	328	50	54±1.5	210	320	1050	380	265	790	800	470	165	265	650	300	35	40H9	95	1910

Vertical mounting dimensions

Type size	E	a	A2	B1	c1	d6	e3	e4	e5	e6	e7	f2	f3	G7	h1	h2	m4	m5	n5	n6	P2	s1	Lube oil (L)		Weight (kg)
																							(3) *	(4) *	
04	160	505	200	188	30±1	150	100	200	215	370	190	26	-	495	135	205	445	300	160	30	220	24	30	-	235
05	185	565	235	215	30±1	160	185	230	252	385	240	30	190	575	160	205	505	360	175	30	285	24	45	25	360
06	220	645	235	215	30±1	160	185	230	252	425	240	30	190	610	160	205	585	360	220	30	285	24	55	28	410
07	225	690	285	250	36±1	210	225	280	302	425	240	32	200	685	190	205	620	430	215	35	330	28	80	40	615
08	270	795	285	250	36±1	210	225	280	302	485	240	32	200	730	190	205	725	430	275	35	330	28	100	45	700
09	265	820	325	270	48±1.5	195	265	320	342	560	330	45	200	805	220	275	740	490	260	40	370	36	125	60	1000
10	315	920	325	270	48±1.5	195	265	320	342	610	330	45	200	855	220	275	840	490	310	40	370	36	150	70	1155
11	320	975	385	328	54±1.5	210	320	380	410	595	330	47	200	980	265	275	875	600	295	50	460	40	220	100	1640
12	390	1130	385	328	54±1.5	210	320	380	410	680	330	47	200	1050	265	275	1030	600	380	50	460	40	240	110	1910

(3)* Dip oil for lubrication; (4)* forced lubrication.

6 B3.. Product parameters

6.1 B3.. Rated input power P1N (kW) table

Type size i N	n1	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
12.5	1800	85	148		261		441		793		1204		2089	2072	3134	3220
	1500	71	124		218		368		661		1003		1740	1727	2612	2684
	1200	57	99		174		294		529		802		1392	1381	2090	2147
	1000	47	82		145		245		441		669		1160	1151	1741	1789
14	1800	84	135		247		406		765		1134		1935	2068	2809	3235
	1500	70	112		206		339		638		945		1613	1723	2341	2696
	1200	56	90		165		271		510		756		1290	1379	1873	2157
	1000	47	75		137		226		425		630		1075	1149	1561	1797
16	1800	83	132	155	240	267	390	454	739	852	1034	1208	1787	1921	2545	2899
	1500	70	110	129	200	223	325	378	616	710	861	1007	1489	1601	2121	2416
	1200	56	88	103	160	178	260	303	493	568	689	805	1191	1281	1697	1933
	1000	46	73	86	133	149	217	252	410	473	574	671	993	1067	1414	1611
18	1800	74	126	142	222	254	373	418	676	796	932	1176	1636	1778	2296	2672
	1500	61	105	118	185	211	311	348	563	663	777	980	1363	1482	1914	2227
	1200	49	84	95	148	169	249	278	450	531	621	784	1091	1186	1531	1782
	1000	41	70	79	123	141	207	232	375	442	518	653	909	988	1276	1485
20	1800	67	113	136	209	260	344	400	609	761	885	1074	1534	1630	1924	2411
	1500	56	94	113	174	217	286	333	507	634	737	895	1279	1358	1604	2009
	1200	44	75	91	139	173	229	267	406	507	590	716	1023	1087	1283	1607
	1000	37	63	76	116	144	191	222	338	423	492	597	852	906	1069	1339
22.4	1800	59	103	130	187	232	321	372	538	699	800	963	1315	1532	1840	2021
	1500	49	86	108	156	193	268	310	449	583	667	803	1096	1277	1533	1684
	1200	39	69	86	124	155	214	248	359	466	533	642	877	1021	1227	1347
	1000	33	57	72	104	129	178	207	299	388	444	535	731	851	1022	1123
25	1800	53	90	123	167	212	269	341	489	628	715	915	1193	1313	1542	1932
	1500	44	75	103	139	176	225	284	408	524	596	762	994	1094	1285	1610
	1200	36	60	82	111	141	180	227	326	419	477	610	796	876	1028	1288
	1000	30	50	69	93	118	150	189	272	349	397	508	663	730	857	1073
28	1800	47	83	113	149	191	252	324	433	556	646	821	1036	1192	1446	1619
	1500	39	69	94	124	160	210	270	361	463	538	684	863	993	1205	1349
	1200	31	55	75	100	128	168	216	288	370	431	547	691	794	964	1079
	1000	26	46	63	83	106	140	180	240	309	359	456	576	662	803	900
31.5	1800	42	71	98	132	169	218	267	398	505	546	739	940	1034	1212	1518
	1500	35	59	82	110	141	182	223	332	421	455	616	783	862	1010	1265
	1200	28	47	66	88	113	145	178	265	337	364	492	627	690	808	1012
	1000	23	40	55	73	94	121	148	221	281	304	410	522	575	673	843
35.5	1800	37	65	90	118	153	204	254	352	447	494	663	841	939	1141	1272
	1500	31	54	75	99	128	170	212	293	372	412	552	700	782	951	1060
	1200	25	43	60	79	102	136	170	235	298	329	442	560	626	761	848
	1000	21	36	50	66	85	113	141	196	248	274	368	467	521	634	707
40	1800	33	56	78	107	134	172	216	305	411	443	565	763	839	957	1198
	1500	28	47	65	89	112	144	180	254	342	369	471	636	699	797	999
	1200	22	37	52	71	89	115	144	203	274	296	377	508	560	638	799
	1000	18	31	43	60	74	96	120	169	228	246	314	424	466	531	666!
45	1800	29	51	71	96	121	161	206	270	363	401	507	672	762	913	1004
	1500	24	43	59	80	101	134	172	225	303	334	422	560	635	761	837
	1200	19	34	47	64	81	107	137	180	242	267	338	448	508	609	670
	1000	16	29	40	53	67	89	114	150	202	223	281	374	423	507	558
50	1800	26	45	61	86	109	138	171	244	315	355	458	610	671	765	959
	1500	21	37	51	72	91	115	142	203	262	296	382	508	560	638	799
	1200	17	30	41	57	72	92	114	163	210	236	305	407	448	510	639
	1000	14	25	34	48	60	77	95	136	175	197	255	339	373	425	533
56	1800	23	41	56	77	98	129	163	216	278	321	411	545	609	683	803
	1500	20	34	47	64	82	107	135	180	232	267	343	454	508	570	670
	1200	16	27	37	51	66	86	108	144	186	214	274	363	406	456	536
	1000	13	23	31	43	55	71	90	120	155	178	228	303	338	380	446
63	1800	21	37	49	69	87	115	137	193	252	286	367	494	544	620	718
	1500	17	31	41	57	73	96	114	161	210	239	305	412	453	517	598
	1200	14	25	33	46	58	77	91	128	168	191	244	330	363	413	478
	1000	12	20	27	38	48	64	76	107	140	159	204	275	302	344	399
71	1800	19	32	45	62	79	98	130	165	223	260	329	434	494	544	651
	1500	16	26	37	52	66	82	108	138	186	216	274	361	411	453	542
	1200	12	21	30	42	53	66	87	110	148	173	219	289	329	363	434
	1000	10	18	25	35	44	55	72	92	124	144	183	241	274	302	362
80	1800	13	24	38	48	70	75	116	145	199	220	294		433		571
	1500	11	20	31	40	59	62	97	121	166	184	245		361		476
	1200	8.9	16	25	32	47	50	77	97	133	147	196		289		381
	1000	7.5	13	21	27	39	42	65	81	110	122	163		241		317
90	1800			33		62		101		175		266				
	1500			27		52		84		146		222				
	1200			22		42		67		117		178				
	1000			18		35		56		97		148				
Type size		04	05	06	07	08	09	10	11	12	13	14	15	16	17	18

6.2 B3.. Nominal output torque T2N (kN•m) table

Type size	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
i N	Nominal output torque capacity of the T2N gearbox (kN•m)														
12.5	5.4	9.4		17		28		52.4		79.5		132	131	195	204
14	6	9.8		18.2		29.5		56.7		81.6		137	148	195	230
16	6.7	10.5	12	19.8	21.5	31	35.6	59.9	66.3	83.8	96.2	142	154	200	230
18	6.7	11.3	12.6	21.1	23.1	33.9	37.5	62	69.5	86.7	102	148	160	200	240
20	6.7	11.6	13.2	21.7	26.5	35.7	39.3	63.5	72.7	90.7	105	153	167	200	240
22.4	6.7	11.6	14.2	21.7	27.2	36	41.8	63.5	75.6	93	108	153	173	200	240
25	6.7	11.6	15.5	21.7	27.2	35.7	43.8	63.5	77.2	90.7	113	153	173	200	240
28	6.7	11.6	15.5	21.7	27.5	36	45	63.5	77.2	93	115	153	173	200	240
31.5	6.7	11.6	15.5	21.7	27.2	35.7	43.8	63.5	77.2	90.7	113	153	173	200	240
35.5	6.7	11.6	15.5	21.7	27.5	36	45	63.5	77.2	93	115	153	173	200	240
40	6.7	11.6	15.5	21.7	27.2	35.7	43.8	63.5	77.2	90.7	113	153	173	200	240
45	6.7	11.6	15.5	21.7	27.5	36	45	63.5	77.2	93	115	153	173	200	240
50	6.5	11.6	15.5	21.7	27.2	35.7	43.8	63.5	77.2	90.7	113	153	173	200	240
56	6.7	11.6	15.5	21.7	27.5	36	45	63.5	77.2	93	115	153	173	200	240
63	6.7	11.6	15.5	21.7	27.2	36	43.8	63.5	77.2	93	113	153	173	200	240
71	6.6	11	15.5	21.7	27.5	34	45	60	77.2	93	115	153	173	200	240
80	5.4	9.5	14.5	19.2	27.5	29.4	45	60	77.2	89.9	115		173		240
90			14		26.9		43		75		115				

6.3 B3.. Actual gear ratio i table

Type size	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
i N	Actual gear ratio i														
12.5	12.64	12.64		12.96		12.64		13.16		13.16		12.59	12.60	12.40	12.62
14	14.18	14.47		14.67		14.47		14.77		14.34		14.10	14.26	13.83	14.17
16	15.99	15.83	15.45	16.43	16.02	15.83	15.63	16.15	15.50	16.15	15.87	15.83	15.97	15.66	15.81
18	18.16	17.87	17.68	18.91	18.14	18.10	17.90	18.29	17.40	18.53	17.29	18.03	17.93	17.35	17.89
20	20.01	20.49	19.34	20.72	20.32	20.69	19.58	20.78	19.03	20.42	19.47	19.87	20.41	20.71	19.83
22.4	22.70	22.36	21.84	23.15	23.38	22.34	22.39	23.50	21.54	23.16	22.34	23.18	22.50	21.66	23.67
25	25.06	25.66	25.04	25.91	25.61	26.40	25.60	25.85	24.48	25.28	24.62	25.54	26.25	25.84	24.75
28	28.42	28.00	27.33	28.96	28.62	28.50	27.63	29.24	27.69	28.68	27.92	29.43	28.93	27.56	29.53
31.5	31.74	32.50	31.36	32.70	32.03	32.61	32.65	31.78	30.45	33.07	30.48	32.43	33.32	32.89	31.50
35.5	36.00	35.47	34.23	36.54	35.80	35.21	35.25	35.95	34.45	37.51	34.57	36.27	36.72	34.91	37.59
40	40.28	41.25	39.72	40.32	40.42	41.30	40.33	41.47	37.44	40.76	39.87	39.97	41.07	41.66	39.90
45	45.69	45.02	43.35	45.06	45.17	44.59	43.54	46.91	42.35	46.23	45.22	45.33	45.26	43.64	47.61
50	50.25	51.46	50.42	50.29	49.84	51.63	51.09	51.84	48.86	50.95	49.13	49.96	51.33	52.08	49.88
56	57.00	56.16	55.02	56.21	55.70	55.74	55.16	58.64	55.27	57.79	55.73	55.94	56.58	58.30	59.51
63	63.82	62.88	62.89	62.93	62.17	62.41	63.86	65.66	61.07	64.70	61.42	61.68	63.34	64.28	66.63
71	70.36	69.33	68.64	69.39	69.48	68.81	68.94	72.39	69.08	71.34	69.67	70.28	69.84	73.25	73.47
80	80.18	79.00	76.85	79.07	77.79	78.41	77.19	82.49	77.35	81.30	78.00		79.58		83.72
90			84.74		85.77		85.11		85.28		86.00				

6.4 B3.. Thermal power PG (kW) meter

Thermal power capacity of PGA gearbox without heat dissipation measures

Type size / i N	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
12.5	30	40		58		82		116		152		206	216	254	268
14	30	40		58		81		115		152		205	215	254	268
16	29	39	44	58	65	81	89	115	129	151	165	204	215	253	268
18	29	39	43	58	65	81	88	114	128	151	165	204	214	252	267
20	29	39	43	58	65	81	88	114	128	150	164	203	214	251	266
22.4	29	38	43	58	64	80	88	114	127	149	164	201	213	251	265
25	28	38	43	57	64	80	88	114	126	148	163	201	210	248	265
28	28	38	42	56	64	79	87	112	126	148	162	200	210	248	261
31.5	28	38	42	56	63	78	87	112	126	146	161	200	209	247	261
35.5	28	38	42	55	62	78	86	111	125	146	161	198	209	247	260
40	27	37	41	55	62	77	85	109	125	146	159	197	207	244	260
45	27	36	41	54	61	77	85	109	124	143	159	196	207	243	257
50	27	36	40	54	61	75	84	108	122	142	159	193	205	237	257
56	27	36	40	54	60	75	84	108	122	141	155	193	202	237	251
63	27	36	40	53	60	74	82	105	120	141	154	191	202	237	251
71	27	35	40	53	59	74	82	105	120	141	154	190	200	235	251
80	27	35	39	52	59	74	81	104	117	138	153		199		248
90			39		59		81		117		153				

Thermal power capacity of PGB gearbox with cooling fan

Type size		04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
i N	n1															
12.5	1000	62	83		122		171		237		304		392	401	484	498
	1200	73	97		143		201		277		353		448	455	554	565
	1500	90	119		175		246		336		426		533	536	658	667
	1800	106	141		207		291		396		499		618	618	763	768
14	1000	62	83		122		170		236		304		391	400	483	498
	1200	73	97		143		200		276		353		447	454	552	565
	1500	89	119		175		245		335		426		532	535	657	667
	1800	105	141		207		289		394		499		616	616	761	768
16	1000	61	82	91	122	135	170	186	236	264	302	322	389	399	482	497
	1200	72	96	107	143	159	199	219	276	308	351	371	445	453	551	564
	1500	88	118	131	175	194	244	267	335	374	423	445	529	534	655	665
	1800	104	139	155	207	230	288	316	394	440	496	519	613	615	759	766
18	1000	61	82	91	122	135	170	185	233	263	301	322	389	397	479	496
	1200	72	96	107	143	159	199	217	273	307	349	371	445	450	548	563
	1500	88	118	131	175	194	244	266	331	373	422	445	529	531	651	664
	1800	104	139	155	207	230	288	314	390	439	494	519	612	611	755	764
20	1000	60	81	90	121	135	170	184	233	263	299	320	387	396	479	493
	1200	71	96	106	142	159	199	216	271	307	347	369	443	450	548	560
	1500	87	117	130	173	194	244	265	330	373	419	442	526	531	651	660
	1800	102	138	153	205	230	288	313	388	439	491	515	610	611	755	760
22.4	1000	60	80	90	121	134	168	184	233	260	298	319	383	395	479	493
	1200	71	94	106	142	157	197	216	271	303	345	368	438	448	548	559
	1500	87	115	129	173	192	241	265	330	368	417	441	520	529	651	659
	1800	102	136	153	205	227	285	313	388	434	488	513	603	609	755	760
25	1000	60	80	90	120	134	167	184	232	259	296	317	383	390	471	493
	1200	70	94	105	141	157	197	216	271	302	344	366	438	443	539	559
	1500	86	115	129	172	192	240	265	330	367	415	438	520	522	641	659
	1800	101	136	152	203	227	284	313	388	432	486	511	603	602	743	760
28	1000	60	80	88	118	133	166	183	230	259	296	315	381	390	471	485
	1200	70	93	103	138	157	196	214	268	302	344	364	436	443	539	551
	1500	86	114	126	169	192	239	262	326	367	415	436	518	522	641	649
	1800	101	135	149	200	227	283	310	384	432	486	508	600	602	743	748
31.5	1000	59	79	88	117	133	163	182	229	259	293	314	381	389	470	485
	1200	70	93	103	137	156	192	214	268	302	340	362	436	441	537	551
	1500	85	113	126	167	191	235	261	325	367	410	434	518	520	639	649
	1800	101	134	149	198	225	277	309	383	432	480	505	600	599	740	748
35.5	1000	58	79	87	116	130	163	181	228	256	292	314	376	389	469	483
	1200	68	93	103	136	153	192	212	266	298	339	362	431	441	537	549
	1500	84	113	126	167	187	235	260	324	363	409	434	512	520	638	647
	1800	99	134	148	197	221	277	307	381	427	479	505	593	599	740	745
40	1000	57	77	87	116	129	161	177	224	255	292	310	376	384	464	483
	1200	67	90	102	136	152	189	208	261	298	339	358	430	436	531	548
	1500	83	111	124	166	185	231	255	317	362	409	429	511	514	631	647
	1800	98	131	147	196	219	273	301	374	426	479	499	592	592	731	745
45	1000	57	76	87	113	128	161	177	224	254	285	310	374	383	463	478
	1200	67	90	102	133	151	189	208	261	296	331	357	427	435	530	542
	1500	83	110	124	163	184	231	255	317	360	399	428	508	513	630	639
	1800	98	130	147	193	218	273	301	374	424	468	499	589	591	730	736
50	1000	57	76	85	113	128	158	175	221	249	284	310	367	381	452	476
	1200	67	89	99	133	150	185	205	258	291	330	357	420	433	517	541
	1500	82	109	122	162	184	226	251	313	353	398	428	499	510	615	638
	1800	97	129	144	192	217	268	297	368	416	466	498	578	588	712	735
56	1000	56	76	84	112	126	158	175	221	249	283	302	367	374	452	465
	1200	66	89	99	132	148	185	205	258	291	328	348	419	425	517	528
	1500	81	109	121	161	180	226	251	313	353	396	418	499	501	615	623
	1800	95	129	142	190	213	268	297	368	416	464	487	578	577	712	717
63	1000	56	75	84	112	125	156	171	216	245	281	301	363	374	452	465
	1200	66	88	98	131	147	183	201	252	286	326	347	416	425	517	528
	1500	80	107	120	161	180	224	246	306	348	394	416	494	501	615	623
	1800	95	127	142	190	213	264	291	361	410	461	485	573	577	712	717
71	1000	56	74	84	112	124	155	171	216	245	281	300	361	371	448	465
	1200	65	87	98	131	146	183	201	252	286	326	345	413	421	512	528
	1500	80	106	120	160	178	223	246	306	348	394	414	492	496	609	622
	1800	94	126	142	190	211	264	291	361	410	461	482	570	572	706	717
80	1000	56	74	82	109	124	155	169	213	240	275	298		369		461
	1200	65	87	96	128	146	182	199	249	280	319	343		419		523
	1500	80	106	118	157	178	223	243	303	341	385	411		494		617
	1800	94	126	139	186	210	263	287	356	401	451	479		568		710
90	1000			82		124		169		240		298				
	1200			96		145		198		280		343				
	1500			117		178		242		341		411				
	1800			138		210		287		401		479				
Type size		04	05	06	07	08	09	10	11	12	13	14	15	16	17	18

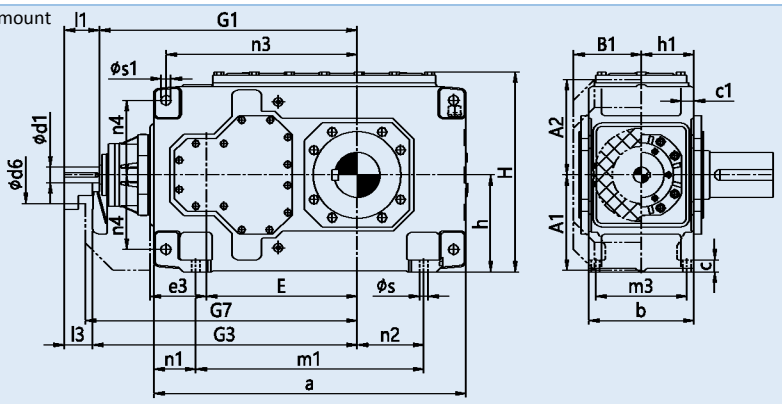
6.5 B3.. Interface size

Three-stage drive

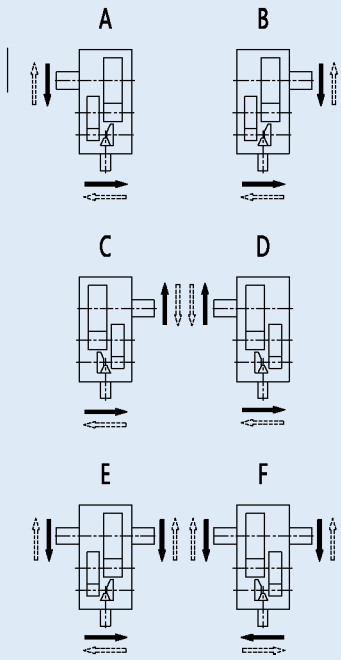
Type B3...

Type sizes 4-12

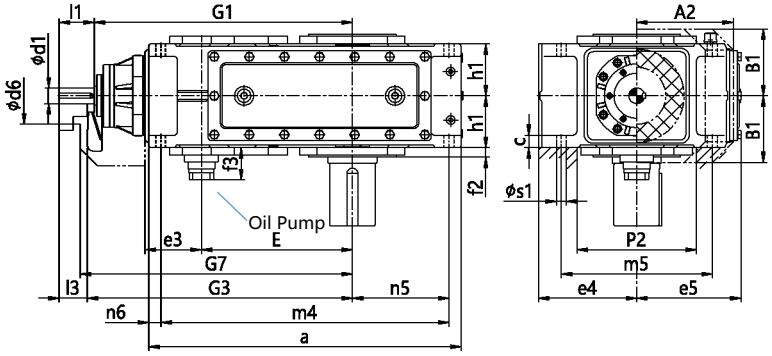
Horizontal mount
B3.. SH
B3.. HH
B3.. DH
B3.. HM
B3.. DM



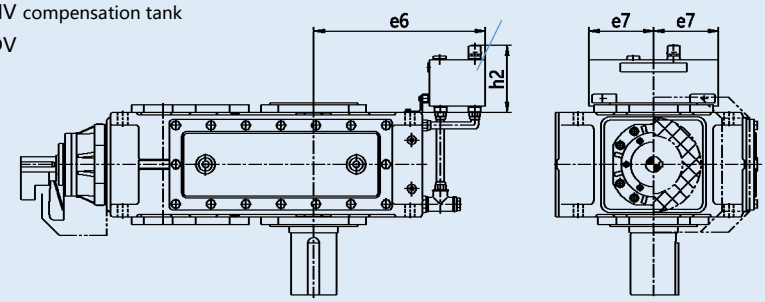
Horizontal mounting B3... H / B3.. M
Layout form



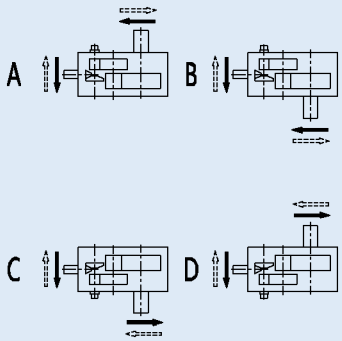
Vertical mounting (with circulating pump)
B3.. SV
B3.. HV
B3.. DV



Upright mount (with compensating tank)
B3.. SV
B3.. HV compensation tank
B3.. DV

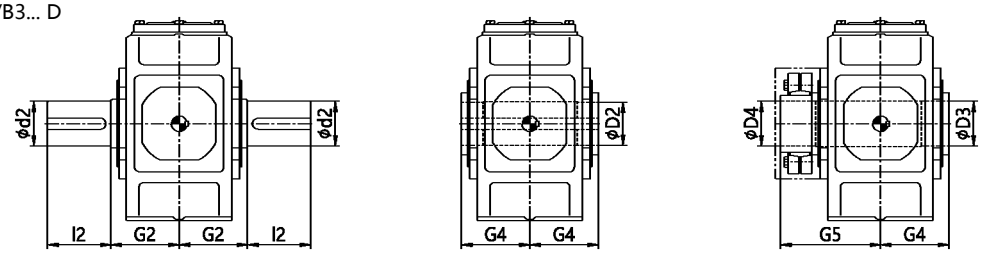


Vertical mounting B3... SV / B3.. HV / B3.. DV
Layout form



Output shaft form

Solid shaft key connection/B3... S Hollow shaft key connection/B3... H hollow shaft locking disc keyless connection/B3... D



Shaft extension dimensions

Type size	Input shaft (high speed shaft)																	
	IN = 12.5-45				iN=16-56				iN=50-71				iN=63-90				G1	G3
	d1		l1	l3	d1		l1	l3	d1		l1	l3	d1		l1	l3		
	Standard	Enhanced			Standard	Enhanced			Standard	strengthen			Standard	Enhanced				
04	30m6	35m6	70	50					25k6	30m6	60	40					500	520
05	35m6	45m6	80	60					28m6	35m6	60	40					575	595
06					35m6	45m6	80	60					28m6	35m6	60	40	610	630
07	45m6	50m6	10	80					35m6	40m6	80	60					690	710
08					45m6	50m6	100	80					35m6	40m6	80	60	735	755
09	55m6	60m6	11	80					40m6	50m6	100	70					800	830
10					55m6	60m6	110	80					40m6	50m6	100	70	850	880
11	70m6	75m6	13	105					50m6	60m6	110	80					960	990
12					70m6	75m6	135	105					50m6	60m6	110	80	1030	1060

Type size	Output shaft (low speed shaft)							
	d2	l2	G2	D2	D3	D4	G4	G5
04	80m6	170	140	80H7	85H7	85H7	140	205
05	100m6	210	165	95H7	100H7	100H7	165	240
06	110n6	210	165	105H7	110H7	110H7	165	240
07	120n6	210	195	115H7	120H7	120H7	195	280
08	130n6	250	195	125H7	130H7	130H7	195	285
09	140n6	250	235	135H7	145H7	140H7	235	330
10	160n6	300	235	150H7	155H7	150H7	235	350
11	170n6	300	270	165H7	170H7	165H7	270	400
12	180n6	300	270	180H7	185H7	180H7	270	405

Horizontal mounting dimensions

Type size	E	a	A1	A2	b	B1	c	c1	d6	e3	G7	h^{0}_{-1}	h1	H	m1	m3	n1	n2	n3	n4	s	s1	Lube oil (L)	Weight (kg)
04	270	565	195	200	215	143	28	30±1	110	110	530	200	107.5	415	355	180	105	85	345	150	19	24H9	9	210
05	315	640	220	235	255	168	28	30±1	130	130	605	230	127.5	482	430	220	105	100	405	180	19	24H9	15	325
06	350	720	220	235	255	168	28	30±1	130	130	640	230	127.5	482	510	220	105	145	440	180	19	24H9	16	380
07	385	785	275	275	300	193	35	36±1	165	160	720	280	150	572	545	260	120	130	500	215	24	28H9	27	550
08	430	890	275	275	300	193	35	36±1	165	160	765	280	150	582	650	260	120	190	545	215	24	28H9	30	635
09	450	925	315	325	370	231	40	45±1.5	175	185	845	320	185	662	635	320	145	155	585	245	28	36H9	42	890
10	500	1025	315	325	370	231	40	45±1.5	175	185	895	320	185	662	735	320	145	205	635	245	28	36H9	45	1020
11	545	1105	370	385	430	263	50	54±1.5	190	225	1010	380	215	782	775	370	165	180	710	300	35	40H9	71	1455
12	615	1260	370	385	430	263	50	54±1.5	190	225	1080	380	215	790	930	370	165	265	780	300	35	40H9	76	1730

Vertical mounting dimensions

Type size	E	a	A2	B1	c1	d6	e3	e4	e5	e6	e7	f2	f3	G7	h1	h2	m4	m5	n5	n6	P2	s1	Lube oil (L)		Weight (kg)
04	270	565	200	143	30±1	110	110	200	215	370	190	22	-	530	107.5	165	505	300	160	30	250	24	28	-	210
05	315	640	235	168	30±1	130	130	230	252	385	240	28	190	605	127.5	205	580	360	175	30	305	24	34	17	325
06	350	720	235	168	30±1	130	130	230	252	425	240	28	190	640	127.5	205	660	360	220	30	305	24	36	18	380
07	385	785	275	193	36±1	165	160	280	292	425	240	30	190	720	150	205	715	430	215	35	360	28	60	25	550
08	430	890	275	193	36±1	165	160	280	302	485	240	32	190	765	150	205	820	430	275	35	360	28	68	30	635
09	450	925	325	231	45±1.5	175	185	320	342	560	330	32	180	845	185	275	845	490	260	40	415	36	120	55	890
10	500	1025	325	231	45±1.5	175	185	320	342	610	330	32	180	895	185	275	945	490	310	40	415	36	130	60	1020
11	545	1105	385	263	54±1.5	190	225	380	402	595	330	35	180	1010	215	275	1005	600	295	50	520	40	200	90	1455
12	615	1260	385	263	54±1.5	190	225	380	410	680	330	35	180	1080	215	275	1160	600	380	50	520	40	220	100	1730

Three-stage drive

Type B3...

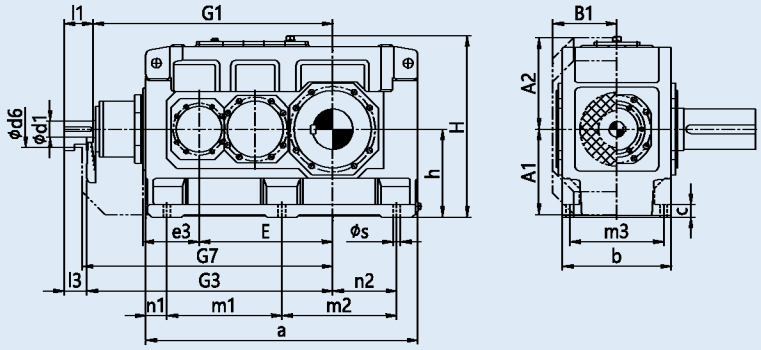
Type size 13-18

Horizontal mount

B3.. SH

B3.. HH

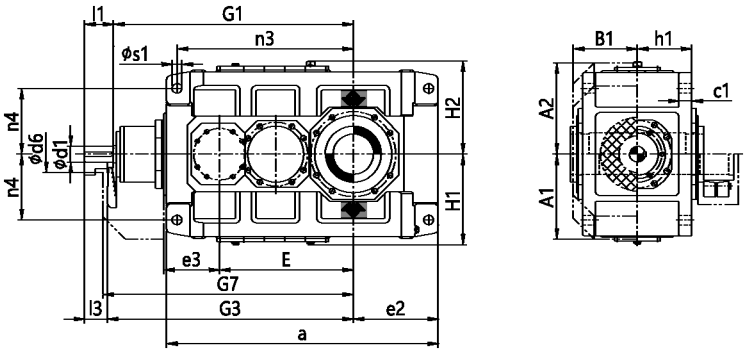
B3.. DH



Horizontal installation without foot

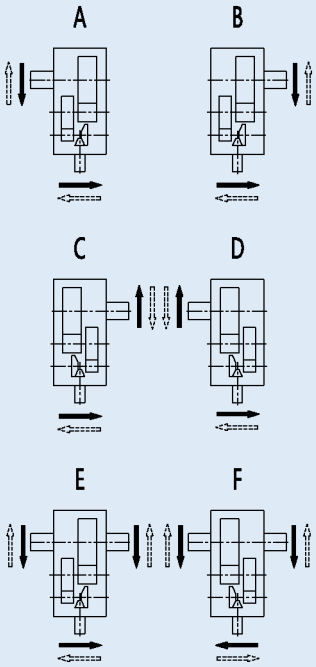
B3.. HM

B3.. DM



Horizontal mounting B3... H / B3.. M

Layout form

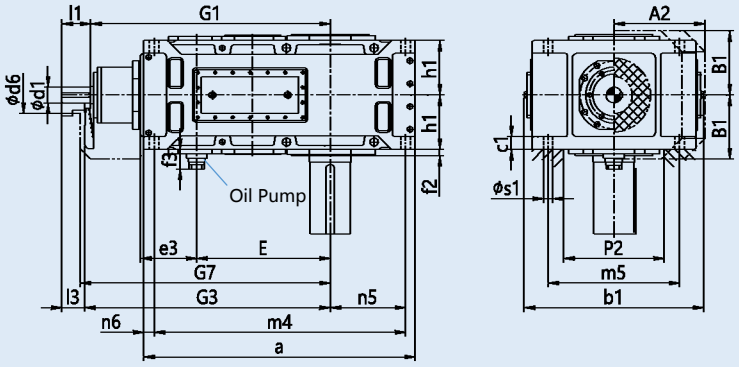


Upright mount

B3.. SV

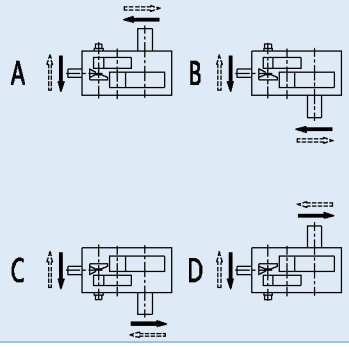
B3.. HV

B3.. DV



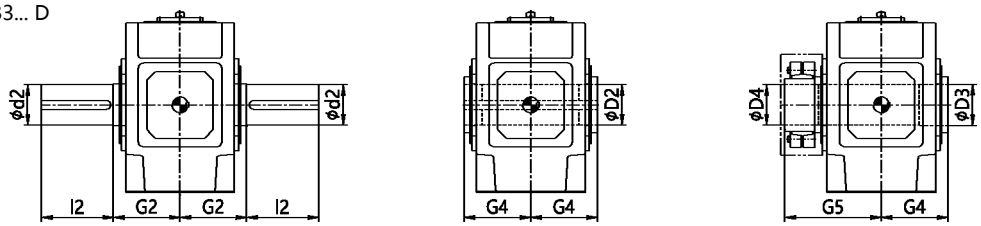
Vertical mounting B3.. SV / B3.. HV / B3.. DV

Layout form



Output shaft form

Solid shaft key connection/B3... S Hollow shaft key connection/B3... H hollow shaft locking disc keyless connection/B3... D



Shaft extension dimensions

Type size	Input shaft (high speed shaft)																									
	i_N = 12.5-45				i_N=14-50				i_N=16-56				i_N=50-71				i_N=56-80				i_N=63-90				G1	G3
	d1		l1	l3	d1		l1	l3	d1		l1	l3	d1		l1	l3	d1		l1	l3	d1		l1	l3		
	Standar	Enha			Standard	Enhanced			Standard	Enhanced			Standard	Enhanced			Standard	Enhanced			Standard	Enhanced				
13	80m6	85m	165	130									60m6	70m6	14	105									1125	1160
14									80m6	85m6	16	130									60m6	70m6	140	105	1195	1230
15	90m6	95m	165	130									70m6	85m6	14	105									1367	1402
16					90m6	95m6	16	130									70m6	85m6	14	105					1413	1448
17	110n6	-	205	165									80m6	-	17	130									1560	1600
18					110n6	-	20	165									80m6	-	17	130					1620	1660

Type size	Output shaft (low speed shaft)							
	d2	l2	G2	D2	D3	D4	G4	G5
13	200n6	350	335	190H7	195H7	190H7	335	480
14	210n6	350	335	210H7	215H7	210H7	335	480
15	230n6	410	380	230H7	235H7	230H7	380	550
16	240n6	410	380	240H7	245H7	240H7	380	550
17	250n6	410	415	250H7	260H7	250H7	415	600
18	270n6	470	415	275H7	285H7	280H7	415	600

Horizontal mounting dimensions

Type size	E	a	A1	A2	b	B1	c	c1	d6	e2	e3	G7	h^{0}_{-1}	h1	H	H1	H2	m1	m2	m3	n1	n2	n3	n4	s	s1	Lube oil (L)		Weight (kg)	
																											B3.. H	B3.. M	B3.. H	B3.. M
13	635	1290	425	435	550	325	60	61±2	210	405	265	1180	440	272.5	900	450	460	545	545	475	100	305	835	340	35	48H9	130	110	2380	2260
14	705	1430	425	435	550	325	60	61±2	210	475	265	1250	440	272.5	900	450	460	545	685	475	100	375	905	340	35	48H9	140	115	2750	2615
15	762	1550	485	520	625	365	70	72±2	210	485	320	1420	500	310	1000	490	500	655	655	535	120	365	1005	375	42	55H9	210	160	3730	3540
16	808	1640	485	520	625	365	70	72±2	210	530	320	1470	500	310	1000	490	500	655	745	535	120	410	1050	375	42	55H9	220	165	3955	3765
17	860	1740	535	570	690	395	80	81±2	230	525	370	1620	550	340	1110	555	560	735	735	600	135	390	1145	425	42	55H9	290	230	4990	4760
18	920	1860	535	570	690	395	80	81±2	230	585	370	1680	550	340	1110	555	560	735	855	600	135	450	1205	425	42	55H9	300	235	5495	5240

Vertical mounting dimensions

Type size	E	a	A2	b1	B1	c1	d6	e3	f2	f3	G7	h1	m4	m5	n5	n6	P2	s1	Lube oil (L)	Weight (kg)
13	635	1290	475	900	325	61±2	210	265	35	170	1180	272.5	1195	680	360	50	580	48	115	2260
14	705	1430	475	900	325	61±2	210	265	35	170	1250	272.5	1335	680	430	50	580	48	130	2615
15	762	1550	520	980	365	72±2	210	320	42	170	1420	310	1435	750	430	60	570	55	180	3540
16	808	1640	520	980	365	72±2	210	320	42	170	1470	310	1525	750	475	60	570	55	190	3765
17	860	1740	570	1110	395	81±2	230	370	42	170	1620	340	1610	850	465	70	630	55	260	4760
18	920	1860	570	1110	395	81±2	230	370	42	170	1680	340	1730	850	525	70	630	55	275	5240

7 B4.. Product parameters

7.1 B4.. Rated input power P1N (kW) table

Type size		05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
i N	n1																				
80	1800	29		56		90		146		217		381	430	506	601	767		1077		1535	1813
	1500	24		46		75		122		181		317	358	421	500	639		898		1279	1511
	1200	20		37		60		97		145		254	287	337	400	511		718		1023	1209
	1000	16		31		50		81		121		212	239	281	334	426		598		853	1007
90	1800	26		49		83		135		206		346	380	460	531	676	774	977	1096	1393	1554
	1500	22		41		69		112		172		289	317	383	442	563	645	814	913	1161	1295
	1200	17		33		55		90		138		231	253	307	354	450	516	652	731	928	1036
	1000	14		27		46		75		115		192	211	255	295	375	430	543	609	774	864
100	1800	23	32	44	56	72	90	117	157	170	224	306	346	406	483	619	682	838	994	1209	1410
	1500	20	27	37	47	60	75	97	131	142	187	255	288	339	402	516	569	698	829	1007	1175
	1200	16	21	30	38	48	60	78	105	114	150	204	230	271	322	413	455	559	663	806	940
	1000	13	18	25	31	40	50	65	87	95	125	170	192	226	268	344	379	465	552	672	784
112	1800	21	28	39	50	66	84	108	141	162	212	282	306	374	427	546	625	760	852	1097	1224
	1500	17	24	33	41	55	70	90	117	135	176	235	255	312	356	455	521	633	710	914	1020
	1200	14	19	26	33	44	56	72	94	108	141	188	204	249	285	364	417	507	568	731	816
	1000	11	16	22	28	37	47	60	78	90	118	156	170	208	237	303	347	422	474	609	680
125	1800	19	26	35	45	57	72	93	126	138	176	249	281	331	393	473	551	660	773	981	1111
	1500	16	21	29	38	47	60	77	105	115	147	207	234	276	327	394	459	550	644	817	926
	1200	13	17	23	30	38	48	62	84	92	117	166	187	220	262	316	367	440	516	654	741
	1000	11	14	19	25	32	40	51	70	77	98	138	156	184	218	263	306	367	430	545	617
140	1800	17	23	31	40	52	67	85	112	131	166	216	249	287	347	417	478	599	671	890	993
	1500	14	19	26	33	44	56	71	94	109	138	180	207	239	289	348	398	499	559	742	828
	1200	11	15	21	26	35	45	57	75	87	111	144	166	191	231	278	319	399	448	593	662
	1000	9.3	13	17	22	29	37	47	62	73	92	120	138	159	193	232	266	333	373	494	552
160	1800	15	21	28	36	45	57	75	100	109	142	191	215	253	301	384	421	535	609	785	901
	1500	12	17	23	30	37	47	63	83	91	119	159	180	211	251	320	351	446	508	654	751
	1200	10	14	18	24	30	38	50	66	73	95	127	144	169	201	256	281	357	406	523	601
	1000	8.1	12	15	20	25	32	42	55	60	79	106	120	141	167	213	234	297	338	436	501
180	1800	13	18	24	31	41	53	69	89	103	134	173	190	229	266	339	388	486	545	712	795
	1500	11	15	20	26	34	44	58	74	86	112	144	159	191	222	282	323	405	454	593	662
	1200	8.6	12	16	21	28	35	46	59	69	90	115	127	153	177	226	259	324	363	475	530
	1000	7.1	10	14	17	23	29	38	49	57	75	96	106	127	148	188	215	270	303	396	442
200	1800	12	16	22	28	36	45	60	81	87	112	153	172	203	241	307	342	428	494	636	721
	1500	10	13	18	23	30	37	50	67	73	94	127	144	169	201	256	285	357	412	530	601
	1200	7.8	11	15	19	24	30	40	54	58	75	102	115	135	160	205	228	286	329	424	481
	1000	6.5	8.8	12	16	20	25	33	45	48	62	85	96	113	134	171	190	238	275	353	401
224	1800	10	14	20	25	33	42	56	72	83	106	136	152	181	213	271	310	389	436	577	644
	1500	8.6	12	16	21	28	35	46	60	69	88	114	127	151	177	226	259	324	363	481	537
	1200	6.9	9.4	13	16	22	28	37	48	55	71	91	102	121	142	181	207	259	291	385	429
	1000	5.7	7.8	11	14	18	23	31	40	46	59	76	85	101	118	150	172	216	242	320	358
250	1800	9.2	12	17	22	30	36	50	65	74	90	124	136	164	190	242	273	347	395	506	584
	1500	7.7	10	15	19	25	30	41	54	62	75	103	113	137	158	202	228	289	329	422	487
	1200	6.1	8.3	12	15	20	24	33	43	49	60	82	91	109	127	161	182	231	264	337	389
	1000	5.1	6.9	10	12	16	20	28	36	41	50	69	76	91	106	134	152	193	220	281	325
280	1800	8.3	11	16	20	27	33	45	58	67	85	108	123	144	172	219	244	315	353		502
	1500	6.9	9.4	13	17	22	28	37	48	56	71	90	103	120	144	183	204	262	294		418
	1200	5.6	7.5	11	13	18	22	30	39	45	57	72	82	96	115	146	163	210	235		335
	1000	4.6	6.3	8.8	11	15	19	25	32	37	47	60	69	80	96	122	136	175	196		279
315	1800	7.1	10	13	18	24	30	39	52	59	76		108		151	193	222	276	320		
	1500	5.9	8.4	11	15	20	25	33	43	49	63		90		126	160	185	230	267		
	1200	4.8	6.7	8.7	12	16	20	26	34	39	50		72		101	128	148	184	214		
	1000	4.0	5.6	7.3	10	13	17	22	29	33	42		60		84	107	123	153	178		
355	1800		9.1		16		27		47		69						194		281		
	1500		7.6		14		23		39		57						162		234		
	1200		6.1		11		18		31		46						130		187		
	1000		5.1		9.0		15		26		38						108		156		
400	1800		7.1		13		24		41		60										
	1500		5.9		11		20		34		50										
	1200		4.7		8.8		16		27		40										
	1000		4.0		7.3		13		23		33										
Type size		05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

7.2 B4.. Nominal output torque T2N (kN•m) table

Type size	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
i N	Nominal output torque capacity of the T2N gearbox (kN•m)																			
80	11.6		21.7		35.7		61.6		90.7		153	173	200	240	300		420		640	725
90	11.6		21.7		36		63.5		93		153	173	200	240	300	345	420	470	640	725
100	11.6	15.5	21.7	27.2	35.7	44.2	61.6	78	90.7	113	153	173	200	240	300	345	420	470	640	725
112	11.6	15.5	21.7	27.2	36	45	63.5	78	93	115	153	173	200	240	300	345	420	470	640	725
125	11.6	15.5	21.7	27.2	35.7	44.2	61.6	78	90.7	113	153	173	200	240	300	345	420	470	640	725
140	11.6	15.5	21.7	27.2	36	45	63.5	78	93	115	153	173	200	240	300	345	420	470	640	725
160	11.6	15.5	21.7	27.2	35.7	44.2	61.6	78	90.7	113	153	173	200	240	300	345	420	470	640	725
180	11.6	15.5	21.7	27.2	36	45	63.5	78	93	115	153	173	200	240	300	345	420	470	640	725
200	11.6	15.5	21.7	27.2	35.7	44.2	61.6	78	90.7	113	153	173	200	240	300	345	420	470	640	725
224	11.6	15.5	21.7	27.2	36	45	63.5	78	93	115	153	173	200	240	300	345	420	470	640	725
250	11.6	15.1	21.7	27.2	36	44.2	63.5	78	93	113	153	173	200	240	300	345	420	470	640	725
280	11.6	15.5	21.7	27.5	36	45	63.5	78	93	115	153	173	200	240	300	345	420	470		710
315	11.3	15.5	20.5	27.5	36	45	63.5	78	93	115		173		240	300	345	420	470		
355		15.5		27.5		45		78		115						345		470		
400		13.8		25.5		45		78		115										

7.3 B4.. Actual gear ratio i table

Type size	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
i N	Actual gear ratio i																			
80	80.03		78.92		80.15		85.25		84.48		81.28	81.37	80.01	80.84	79.17		78.87		84.34	80.88
90	90.76		89.52		87.47		95.28		91.21		89.39	92.04	87.99	91.44	89.80	90.16	86.92	86.76	92.96	94.35
100	100.22	97.82	98.83	97.55	100.37	99.13	106.64	100.43	107.76	101.84	101.11	101.22	99.53	100.57	98.02	102.28	101.40	95.62	107.08	103.99
112	113.66	110.93	112.11	110.66	109.54	108.19	119.18	112.24	116.34	109.95	109.90	114.50	108.18	113.75	111.19	111.63	111.76	111.54	118.02	119.79
125	123.21	122.49	125.18	122.16	127.13	124.14	134.56	125.63	133.12	129.90	124.31	124.44	122.37	123.64	128.22	126.63	128.74	122.94	131.97	132.02
140	139.73	138.92	142.00	138.57	138.75	135.49	150.39	140.40	143.72	140.25	143.42	140.76	141.18	139.85	145.44	146.02	141.89	141.62	145.45	147.63
160	161.13	150.59	158.89	154.74	161.36	157.24	165.91	158.53	168.62	160.47	162.23	162.41	159.70	161.35	158.02	165.64	158.67	156.08	164.97	162.71
180	182.73	170.79	180.23	175.53	176.11	171.62	185.42	177.17	182.04	173.25	179.28	183.70	176.48	182.51	179.24	179.96	174.87	174.53	181.81	184.54
200	201.00	196.93	198.21	196.40	201.29	199.58	206.97	195.46	210.77	203.26	202.79	203.01	199.62	201.69	197.52	204.14	198.33	192.36	203.56	203.39
224	227.95	223.34	224.83	222.79	219.69	217.82	231.31	218.44	227.55	219.45	227.05	229.63	223.50	228.14	224.06	224.96	218.59	218.17	224.44	227.71
250	255.22	245.67	251.73	245.01	245.97	248.97	258.98	243.83	254.77	254.08	250.34	257.10	246.42	255.43	250.86	255.17	244.73	240.45	255.76	251.07
280	281.39	278.61	277.55	277.92	271.20	271.72	285.54	272.50	280.90	274.31	285.27	283.47	280.81	281.63	276.59	285.70	269.84	269.21		286.10
315	320.66	311.93	316.27	311.16	309.04	304.23	325.38	305.10	320.10	307.13		323.02		320.92	315.18	315.00	307.49	296.82		
355		343.93		343.08		335.43		336.39		338.63						358.95		338.24		
400		391.92		390.95		382.23		383.33		385.88										

7.4 B4.. Thermal power PG (kW) meter

P_{GA} Thermal power capacity of the gearbox without heat dissipation measures

Type size / i N	05	06	07	08	09	10	11	12	13	14	15	16	17	18
80	31		45		64		91		119		161	170	191	201
90	31		45		63		91		118		161	168	188	201
100	31	33	45	50	63	69	89	100	118	128	159	168	187	199
112	30	33	45	50	63	68	89	100	117	128	159	166	186	197
125	30	33	44	49	62	68	88	98	116	127	159	166	186	197
140	30	33	44	49	62	68	88	98	116	127	156	165	183	196
160	29	32	43	48	61	67	88	98	114	125	156	163	183	193
180	29	32	43	48	60	67	87	97	114	125	155	163	181	193
200	29	32	43	48	60	66	86	97	112	124	155	161	181	191
224	29	32	43	48	60	65	85	96	112	124	152	161	178	191
250	29	32	42	48	59	65	85	95	111	122	151	159	178	188
280	29	32	42	47	59	65	85	94	111	121	150	158	175	188
315	28	32	42	47	59	64	84	94	110	120		156		185
355		31		47		64		94		119				
400		31		47		64		92		119				

Note: For details, please contact us about thermal power capability for Type size ≥19.

7.5 B4.. Interface size

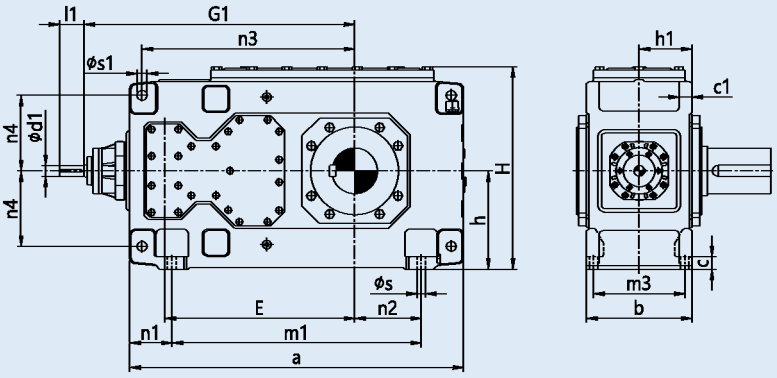
Four-stage drive

Type B4..

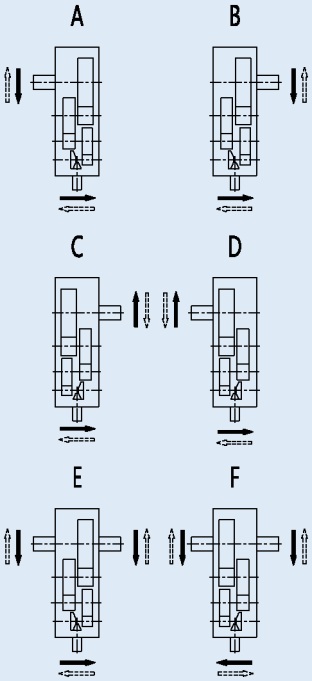
Type sizes 4-12

Horizontal mount

B4.. SH
B4.. HH
B4.. DH
B4.. HM
B4.. DM

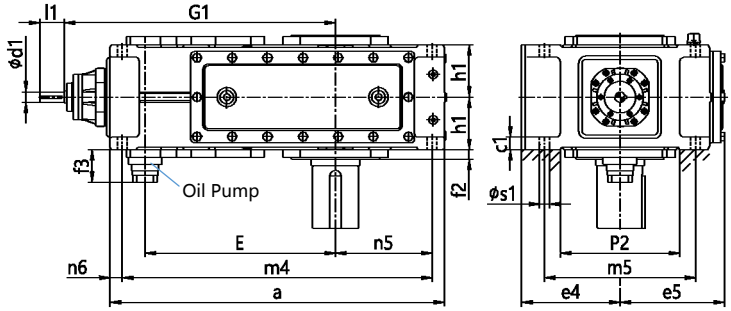


Horizontal mount B4... H / B4.. M
Layout form



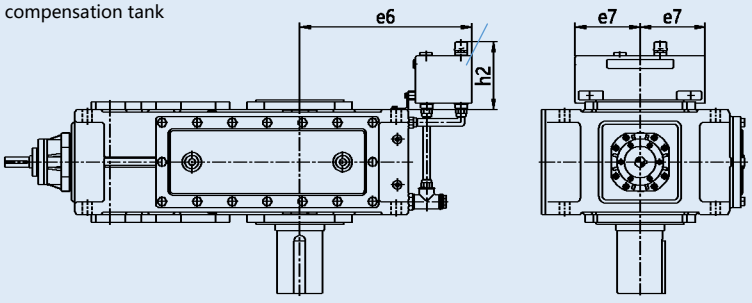
Vertical mount (with circulating pump)

B4.. SV
B4.. HV
B4.. DV

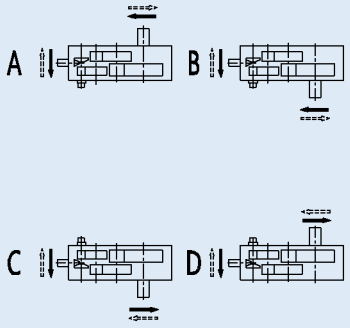


Upright mount (with compensating tank)

B4.. SV
B4.. HV compensation tank
B4.. DV

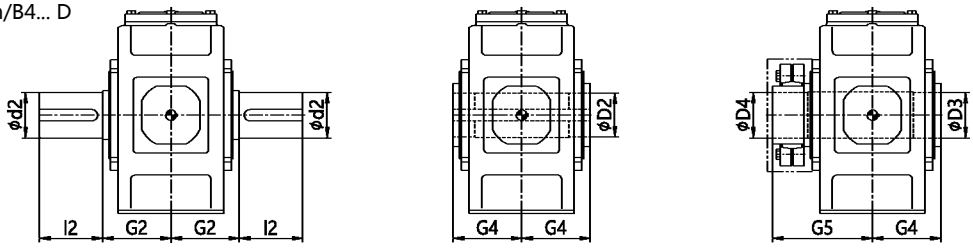


Vertical mounting B4... SV / B4.. HV / B4.. DV
Layout form



Output shaft form

Solid shaft key connection/B4... S Hollow shaft key connection/B4... H hollow shaft locking disc keyless connection/B4... D



Shaft extension dimensions

Type size	Input shaft (high-speed shaft)												G1	Output shaft (low speed shaft)							
	iN=80-180			iN=100-224			iN=200-315			iN=250-400				d2	l2	G2	D2	D3	D4	G4	G5
	d1		l1	d1		l1	d1		l1	d1		l1									
	Standard	Enhanced		Standard	Enhanced		Standard	Enhanced		Standard	Enhanced										
05	28m6	35m6	55				20k6	25k6	50				615	100m6	210	165	95H7	100H7	100H7	165	240
06				28m6	35m6	55				20k6	25k6	50	650	110n6	210	165	105H7	110H7	110H7	165	240
07	30m6	35m6	70				25k6	30m6	60				725	120n6	210	195	115H7	120H7	120H7	195	280
08				30m6	35m6	70				25k6	30m6	60	770	130n6	250	195	125H7	130H7	130H7	195	285
09	35m6	45m6	80				28m6	35m6	60				840	140n6	250	235	135H7	145H7	140H7	235	330
10				35m6	45m6	80				28m6	35m6	60	890	160n6	300	235	150H7	155H7	150H7	235	350
11	45m6	50m6	100				35m6	40m6	80				1010	170n6	300	270	165H7	170H7	165H7	270	400
12				45m6	50m6	100				35m6	40m6	80	1080	180n6	300	270	180H7	185H7	180H7	270	405

Horizontal mounting dimensions

Type size	E	a	b	c	c1	h^{0}_{-1}	h1	H	m1	m3	n1	n2	n3	n4	s	s1	Lube oil (L)	Weight (kg)
05	405	690	255	28	30±1	230	127.5	482	480	220	105	100	455	180	19	24H9	16	335
06	440	770	255	28	30±1	230	127.5	482	560	220	105	145	490	180	19	24H9	18	385
07	495	845	300	35	36±1	280	150	572	605	260	120	130	560	215	24	28H9	30	555
08	540	950	300	35	36±1	280	150	582	710	260	120	190	605	215	24	28H9	33	655
09	580	1000	370	40	45±1.5	320	185	662	710	320	145	155	660	245	28	36H9	48	890
10	630	1100	370	40	45±1.5	320	185	662	810	320	145	205	710	245	28	36H9	50	1025
11	705	1200	430	50	54±1.5	380	215	782	870	370	165	180	805	300	35	40H9	80	1485
12	775	1355	430	50	54±1.5	380	215	790	1025	370	165	265	875	300	35	40H9	90	1750

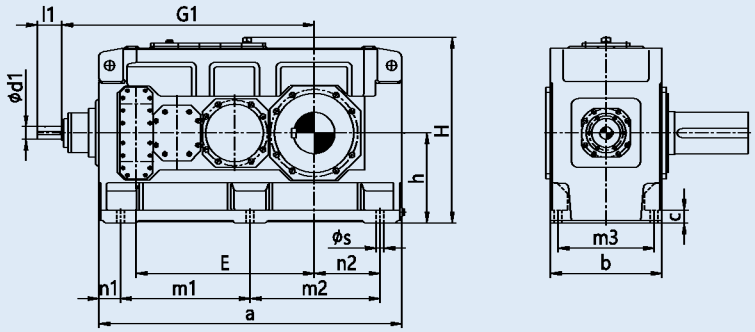
Vertical mounting dimensions

Type size	E	a	c1	e4	e5	e6	e7	f2	f3	h1	h2	m4	m5	n5	n6	P2	s1	Lubricating oil (L)		Weight (kg)
																		(3) *	(4) *	
05	405	690	30±1	230	252	385	240	28	200	127.5	205	630	360	175	30	305	24	36	18	335
06	440	770	30±1	230	252	425	240	28	200	127.5	205	710	360	220	30	305	24	40	20	385
07	495	845	36±1	280	292	425	240	30	120	150	205	775	430	215	35	360	28	65	32	555
08	540	950	36±1	280	302	485	240	32	120	150	205	880	430	275	35	360	28	73	36	655
09	580	1000	45±1.5	320	342	560	330	32	120	185	275	920	490	260	40	415	36	115	65	890
10	630	1100	45±1.5	320	342	610	330	32	120	185	275	1020	490	310	40	415	36	140	75	1025
11	705	1200	54±1.5	380	402	595	330	35	130	215	275	1100	600	295	50	520	40	190	85	1485
12	775	1355	54±1.5	380	410	680	330	35	130	215	275	1255	600	380	50	520	40	200	100	1750

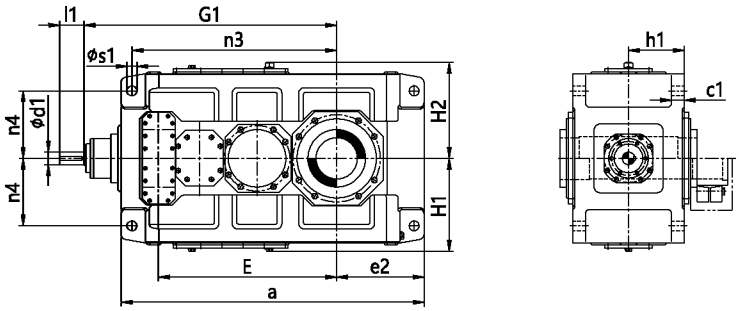
(3)* Dip oil for lubrication; (4)* forced lubrication.

Four-stage drive
Type B4..
Type size 13-24

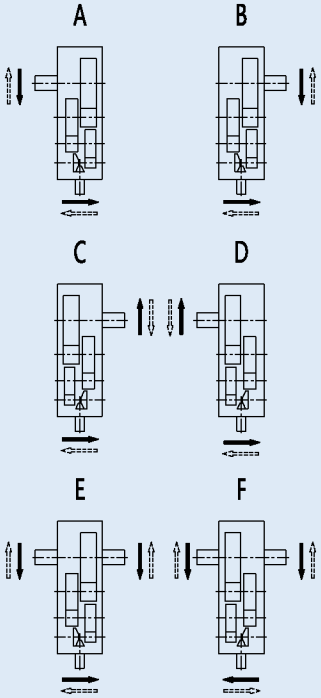
Horizontal mounting
B4.. SH
B4.. HH
B4.. DH



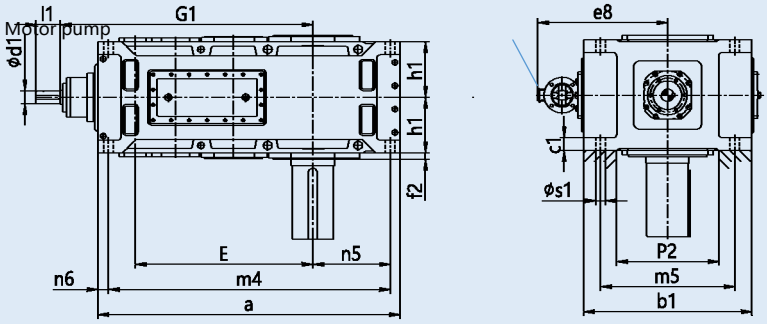
Horizontal installation without foot
B4.. HM
B4.. DM



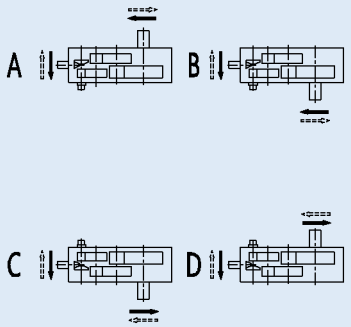
Horizontal mount B4... H / B4.. M
Layout form



Upright mount
B4.. SV
B4.. HV
B4.. DV Motor pump

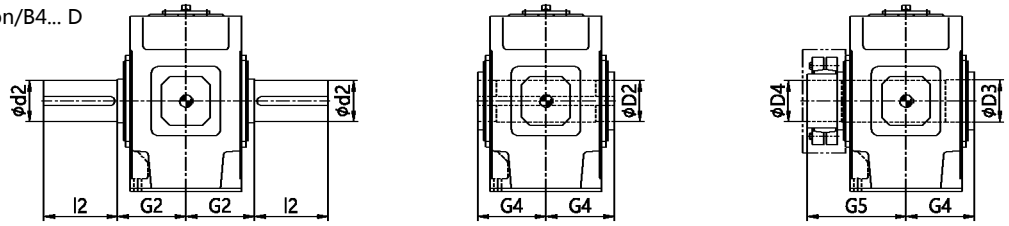


Vertical mount B4... SV / B4.. HV / B4.. DV
Layout form



Output shaft form

Solid shaft key connection/B4... S Hollow shaft key connection/B4... H hollow shaft locking disc keyless connection/B4... D



Shaft extension dimensions

Type size	Input shaft (high speed shaft)																		
	i_N=80-180			i_N=90-200			i_N=100-224			i_N=200-315			i_N=224-355			i_N=250-400			G1
	d1		l1	d1		l1	d1		l1	d1		l1	d1		l1	d1		l1	
	Standard	Enhanced		Standard	Enhanced		Standard	Enhanced		Standard	Enhanced		Standard	Enhanced		Standard	Enhanced		
13	55m6	60m6	110							40m6	50m6	100							1170
14							55m6	60m6	110							40m6	50m6	100	1240
15	70m6	75m6	135							50m6	60m6	110							1402
16				70m6	75m6	135							50m6	60m6	110				1448
17	70m6	75m6	135							50m6	60m6	110							1450
18				70m6	75m6	135							50m6	60m6	110				1510
19	80m6	85m6	165							60m6	70m6	140							1680
20				80m6	85m6	165							60m6	70m6	140				1740
21	90m6	95m6	165							70m6	85m6	140							1992
22				90m6	95m6	165							70m6	85m6	140				2047
23	90m6	95m6	165							70m6	85m6	140							2110
24				90m6	95m6	165							70m6	85m6	140				2175

Type size	Output shaft (low speed shaft)							
	d2	l2	G2	D2	D3	D4	G4	G5
13	200n6	350	335	190H7	195H7	190H7	335	480
14	210n6	350	335	210H7	215H7	210H7	335	480
15	230n6	410	380	230H7	235H7	230H7	380	550
16	240n6	410	380	240H7	245H7	240H7	380	550
17	250n6	410	415	250H7	260H7	250H7	415	600
18	270n6	470	415	275H7	285H7	280H7	415	600
19	290n6	470	465	-	295H7	285H7	465	670
20	300n6	500	465	-	315H7	310H7	465	670
21	320n6	500	490	-	335H7	330H7	490	715
22	340n6	550	490	-	345H7	340H7	490	725
23	360n6	590	540	-	365H7	360H7	540	785
24	380n6	590	540	-	385H7	380H7	540	805

Horizontal mounting dimensions

Type size	E	a	b	c	c1	e2	h^{0}_{-1}	h1	H	H1	H2	m1	m2	m3	n1	n2	n3	n4	s	s1	Lube oil (L)		Weight (kg)	
																					B4.. H	B4.. M	B4.. H	B4.. M
13	820	1395	550	60	61±2	405	440	272.5	900	450	460	597.5	597.5	475	100	305	940	340	35	48H9	145	120	2395	2280
14	890	1535	550	60	61±2	475	440	272.5	900	450	460	597.5	737.5	475	100	375	1010	340	35	48H9	150	125	2735	2605
15	987	1680	625	70	72±2	485	500	310	1000	490	500	720	720	535	120	365	1135	375	42	55H9	230	170	3630	3435
16	1033	1770	625	70	72±2	530	500	310	1000	490	500	720	810	535	120	410	1180	375	42	55H9	235	175	3985	3765
17	1035	1770	690	80	81±2	525	550	340	1110	555	560	750	750	600	135	390	1175	425	42	55H9	295	230	4695	4460
18	1095	1890	690	80	81±2	585	550	340	1110	555	560	750	870	600	135	450	1235	425	42	55H9	305	235	5200	4930
19	1190	2030	790	90	91±2	590	620	390	1240	615	620	860	860	690	155	435	1365	475	48	65H9	480	440	6800	6300
20	1250	2150	790	90	91±2	650	620	390	1240	615	620	860	980	690	155	495	1425	475	48	65H9	550	510	8200	7700
21	1387	2340	830	100	100±2	655	700	410	1390	685	690	1000	1000	720	170	485	1600	520	56	75H9	540	590	9200	8600
22	1442	2450	830	100	100±2	710	700	410	1390	685	690	1000	1110	720	170	540	1655	520	56	75H9	620	680	9900	9400
23	1505	2530	930	115	120±2	730	780	462	1570	770	790	1085	1085	810	180	550	1725	580	56	80H9	710	790	11600	10700
24	1570	2660	930	115	120±2	795	780	462	1570	770	790	1085	1215	810	180	615	1790	580	56	80H9	810	910	13500	12600

Vertical mounting dimensions

Type size	E	a	b1	c1	e8	f2	h1	m4	m5	n5	n6	P2	s1	Lube oil (L)	Weight (kg)
13	820	1395	900	61±2	690	35	272.5	1300	680	360	50	540	48	135	2280
14	890	1535	900	61±2	690	35	272.5	1440	680	430	50	540	48	150	2605
15	987	1680	980	72±2	730	42	310	1565	750	430	60	570	55	210	3435
16	1033	1770	980	72±2	730	42	310	1655	750	475	60	570	55	240	3765
17	1035	1770	1110	81±2	790	42	340	1640	850	465	70	630	55	270	4460
18	1095	1890	1110	81±2	790	42	340	1760	850	525	70	630	55	285	4930
19-24 Supply on request															

8 Other Instructions

8.1 Dimensions of hollow shaft interface with locking disc

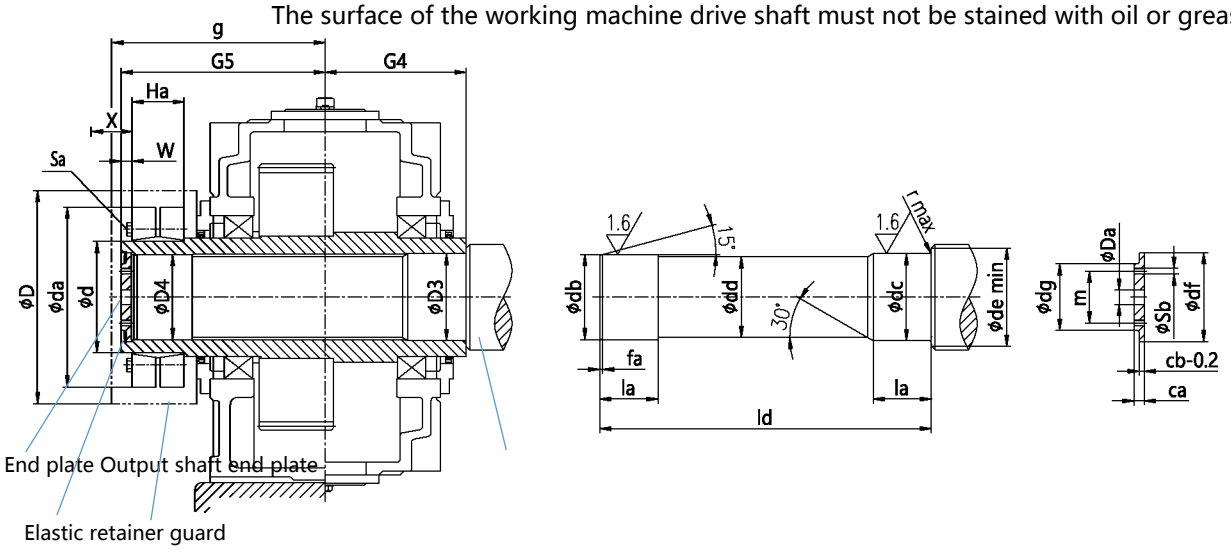
Type B2

Frame number 4-18

X= required reserved torque wrench space

Machine drive shaft for locking disc connection

The surface of the working machine drive shaft must not be stained with oil or grease



Type B2D																													
Type size	Machine drive shaft								End plate								Elastic retainer	Hollow shaft				Locking disc					Screws	Shields	
	db	dc	dd	de	fa	ld	la	r	ca	cb	df	dg	Da	m	Sb	Quantity		D4	D3	G4	G5	Type	d	da	Ha	W	Sa	D	g
04	85g6	85h6	84.5	95	4	386	48	2	17	7	90	70	22	50	M8	2	90x3	85	85	170	235	110-32	110	185	49	20	M12	235	250
05	100g6	100h6	99.5	114	5	453	53	2	20	8	105	80	26	55	M10	2	105x4	100	100	200	275	125-32	125	215	53	20	M12	275	285
06	110g6	110h6	109.5	124	5	453	58	3	20	8	115	85	26	60	M10	2	115x4	110	110	200	275	140-32	140	230	58	20	M14	285	285
07	120g6	120h6	119.5	134	5	533	68	3	20	8	125	90	26	65	M12	2	125x4	120	120	235	320	155-32	155	263	62	23	M14	330	335
08	130g6	130h6	129.5	145	6	538	73	3	20	8	135	100	26	70	M12	2	135x4	130	130	235	325	165-32	165	290	68	23	M16	340	340
09	140g6	145m6	139.5	160	6	609	82	4	23	10	150	110	33	80	M12	2	150x4	140	145	270	365	175-32	175	300	68	28	M16	360	380
10	150g6	155m6	149.5	170	6	629	92	4	23	10	160	120	33	90	M12	2	160x4	150	155	270	385	200-32	200	340	85	28	M16	395	400
11	165f6	170m6	164.5	185	7	744	112	4	23	10	175	130	33	90	M12	2	175x4	165	170	320	450	220-32	220	370	103	30	M20	435	470
12	180f6	185m6	179.5	200	7	749	122	4	23	10	190	140	33	100	M16	2	190x4	180	185	320	455	240-32	240	405	107	30	M20	450	470
14	210f6	215m6	209.5	233	8	894	147	5	28	14	220	170	33	130	M16	2	220x5	210	215	390	535	280-32	280	460	132	30	M20	525	555
16	240f6	245m6	239.5	263	8	1039	157	5	28	14	250	190	39	150	M20	2	250x5	240	245	450	620	320-32	320	520	140	35	M24	595	645
18	280f6	285m6	279.5	306	9	1177	177	5	30	14	290	210	39	160	M20	2	290x5	280	285	510	700	360-32	360	590	162	35	M24	635	725

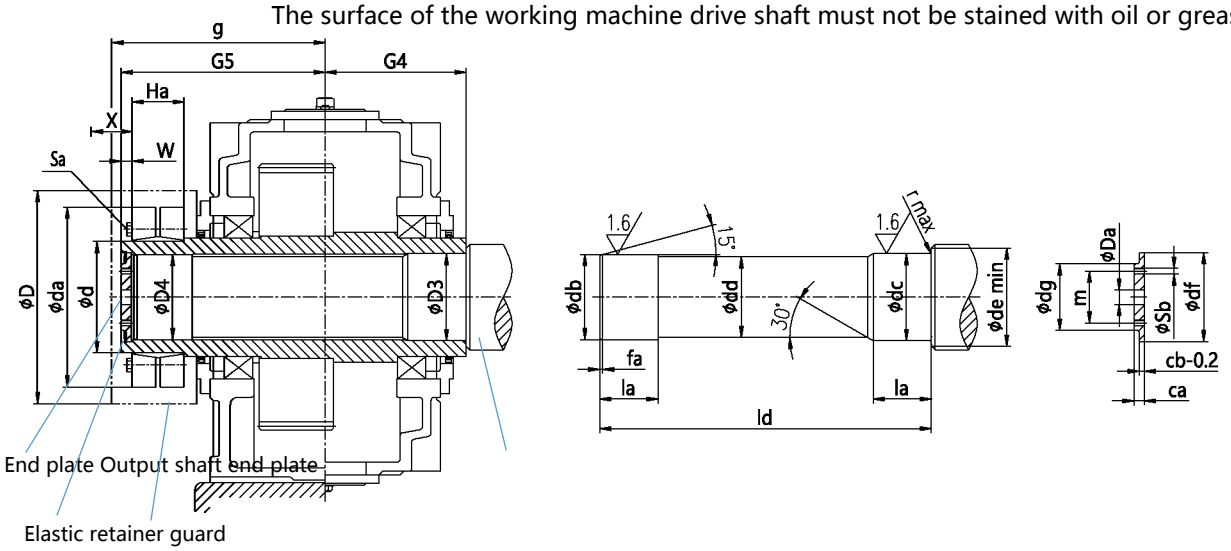
Types H2,H3,H4,B3,B4

Type sizes 4-24

X= required reserved torque wrench space

Machine drive shaft for locking disc connection

The surface of the working machine drive shaft must not be stained with oil or grease

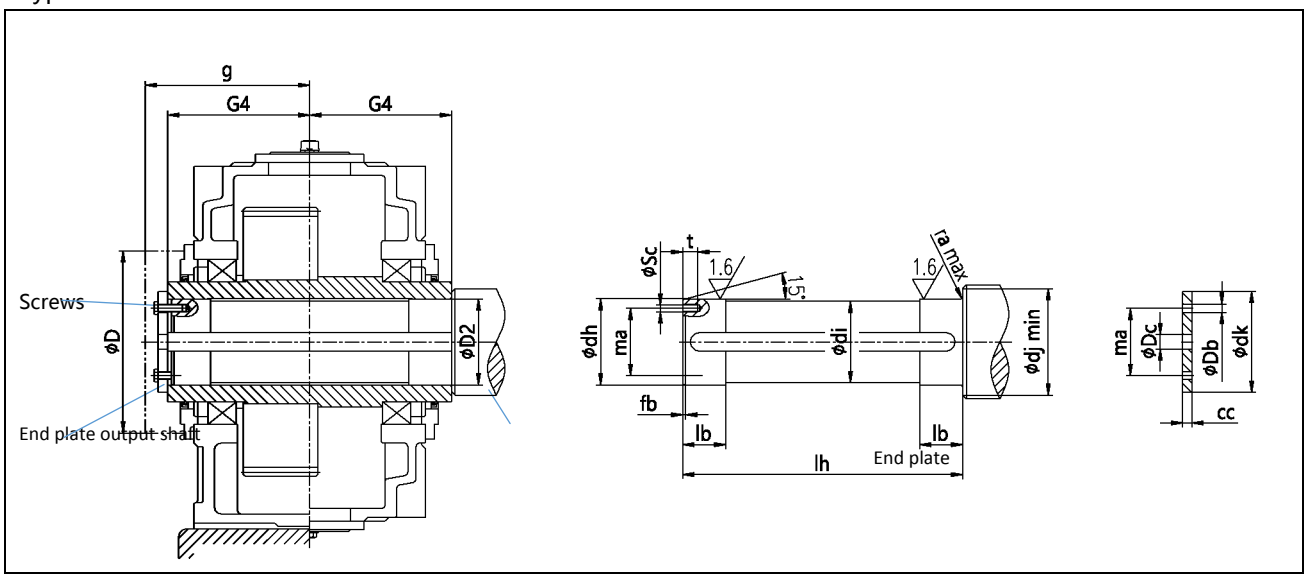


Type H2D,H3D,H4D,B3D,B4D																													
Type size	Machine drive shaft								End plate								Elastic retainer	Hollow shaft				Lock disc					Screws	Shields	
	db	dc	dd	de	fa	ld	la	r	ca	cb	df	dg	Da	m	Sb	Quantity		D4	D3	G4	G5	Type	d	da	Ha	W	Sa	D	g
04	85g6	85h6	84.5	95	4	326	48	2	17	7	90	70	22	50	M8	2	90x3	85	85	140	205	100-32	110	185	49	20	M12	235	220
05	100g6	100h6	99.5	114	5	383	53	2	20	8	105	80	26	55	M10	2	105x4	100	100	165	240	125-32	125	215	53	20	M12	275	255
06	110g6	110h6	109.5	124	5	383	58	3	20	8	115	85	26	60	M10	2	115x4	110	110	165	240	140-32	140	230	58	20	M14	285	255
07	120g6	120h6	119.5	134	5	453	68	3	20	8	125	90	26	65	M12	2	125x4	120	120	195	280	155-32	155	263	62	23	M14	330	295
08	130g6	130h6	129.5	145	6	458	73	3	20	8	135	100	26	70	M12	2	135x4	130	130	195	285	165-32	165	290	68	23	M16	340	300
09	140g6	145m6	139.5	160	6	539	82	4	23	10	150	110	33	80	M12	2	150x4	140	145	235	330	175-32	175	300	68	28	M16	360	345
10	150g6	155m6	149.5	170	6	559	92	4	23	10	160	120	33	90	M12	2	160x4	150	155	235	350	200-32	200	340	85	28	M16	395	365
11	165f6	170m6	164.5	185	7	644	112	4	23	10	175	130	33	90	M12	2	175x4	165	170	270	400	220-32	220	370	103	30	M20	435	420
12	180f6	185m6	179.5	200	7	649	122	4	23	10	190	140	33	100	M16	2	190x4	180	185	270	405	240-32	240	405	107	30	M20	450	420
13	190f6	195m6	189.5	213	7	789	137	5	23	10	200	150	33	110	M16	2	200x4	190	195	335	480	260-32	260	430	119	30	M20	500	505
14	210f6	215m6	209.5	233	8	784	147	5	28	14	220	170	33	130	M16	2	220x5	210	215	335	480	280-32	280	460	132	30	M20	525	505
15	230f6	235m6	229.5	253	8	899	157	5	28	14	240	180	39	140	M16	2	240x5	230	235	380	550	300-32	300	485	140	35	M24	575	575
16	240f6	245m6	239.5	263	8	899	157	5	28	14	250	190	39	150	M20	2	250x5	240	245	380	550	320-32	320	520	140	35	M24	595	575
17	250f6	260m6	249.5	278	8	982	177	5	30	14	265	200	39	150	M20	2	265x5	250	260	415	600	340-32	340	570	155	35	M24	615	630
18	280f6	285m6	279.5	306	9	982	177	5	30	14	290	210	39	160	M20	2	290x5	280	285	415	600	360-32	360	590	162	35	M24	635	625
19	285f6	295m6	284.5	316	9	1100	187	5	32	15	300	220	39	170	M24	2	300x5	285	295	465	670	380-32	380	640	166	40	M27	-	-
20	310f6	315m6	309.5	336	9	1100	187	5	32	15	320	230	39	180	M24	2	320x6	310	315	465	670	390-32	390	650	166	40	M27	-	-
21	330f6	335m6	329	358	9	1160	205	5	40	20	340	250	45	190	M24	2	340x6	330	335	490	715	420-32	420	670	186	45	M27	-	-
22	340f6	345m6	339	368	9	1170	215	5	40	20	350	260	45	200	M24	2	350x6	340	345	490	725	440-32	440	720	194	45	M27	-	-
23 to 24	For details, please contact us																												

8.2 Dimensions of hollow shaft interface for flat key connection

Type B2

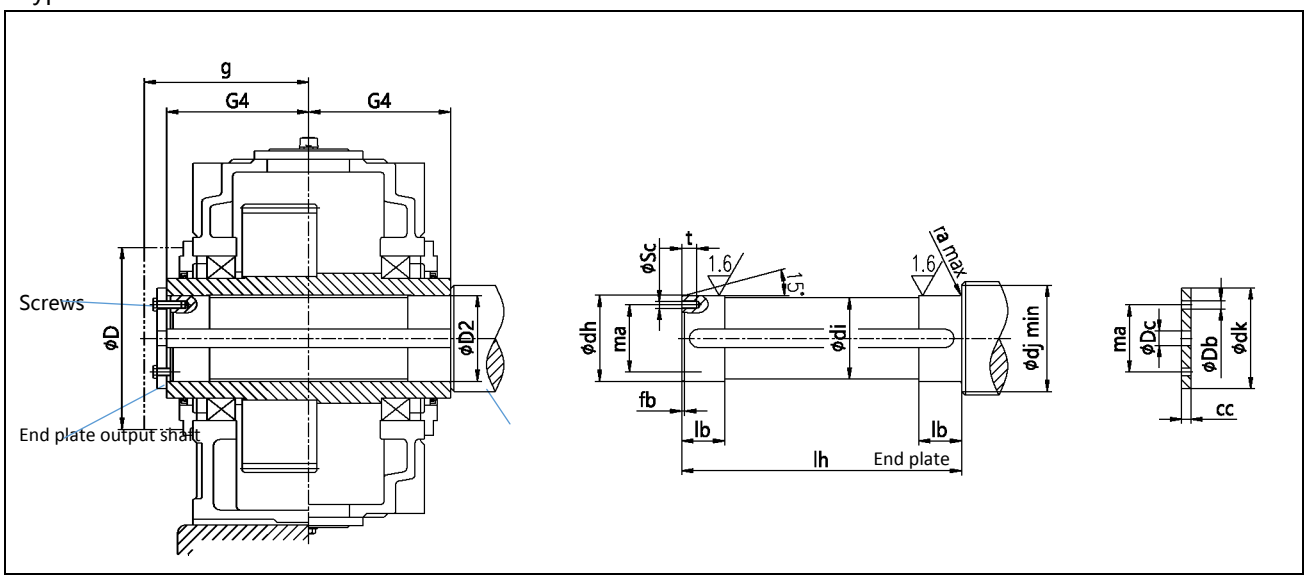
Type sizes 4-18



Type B2H																				
Type size	Machine drive shaft									End plate					Screws		Hollow shaft			
	dh	di	dj	fb	lh	lb	ra	Sc	t	cc	Db	Dc	dk	ma	Specs	Quantity	D2	G4	D	g
04	80h6	79.5	88	4	338	35	1.2	M10	18	10	11	22	100	60	M10x25	2	80	170	235	250
05	95h6	94.5	105	5	398	40	1.6	M10	18	10	11	26	120	70	M10x25	2	95	200	275	285
06	105h6	104.5	116	5	398	45	1.6	M10	18	10	11	26	120	70	M10x25	2	105	200	285	285
07	115h6	114.5	126	5	468	50	1.6	M12	20	12	13.5	26	140	80	M12x30	2	115	235	330	335
08	125h6	124.5	136	6	468	55	2.5	M12	20	12	13.5	26	150	85	M12x30	2	125	235	340	340
09	135h6	134.5	147	6	537	60	2.5	M12	20	12	13.5	33	160	90	M12x30	2	135	270	360	380
10	150h6	149.5	162	6	537	65	2.5	M12	20	12	13.5	33	185	110	M12x30	2	150	270	395	400
11	165h6	164.5	177	7	637	70	2.5	M16	28	15	17.5	33	195	120	M16x40	2	165	320	435	470
12	180h6	179.5	192	7	637	75	2.5	M16	28	15	17.5	33	220	130	M16x40	2	180	320	450	470
14	210h6	209.5	226	8	777	85	3	M16	28	18	17.5	33	250	160	M16x40	2	210	390	525	555
16	240h6	239.5	258	8	896	100	3	M20	38	25	22	39	280	180	M20x55	4	240	450	595	645
18	275h6	274.5	295	9	1016	120	4	M20	38	25	22	39	330	210	M20x55	4	275	510	635	725

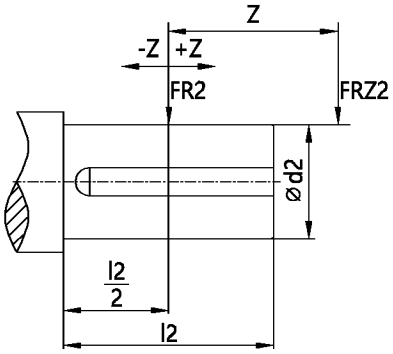
Types H2,H3,H4,B3,B4

Type sizes 4-18



Types H2H,H3H,H4H,B3H,B4H																				
Type size	Machine drive shaft									End plate					Screws		Hollow shaft			
	dh	di	dj	fb	lh	lb	ra	Sc	t	cc	Db	Dc	dk	ma	specification	Quantity	D2	G4	D	g
04	80h6	79.5	88	4	278	35	1.2	M10	18	10	11	22	100	60	M10x25	2	80	140	235	220
05	95h6	94.5	105	5	328	40	1.6	M10	18	10	11	26	120	70	M10x25	2	95	165	275	255
06	105h6	104.5	116	5	328	45	1.6	M10	18	10	11	26	120	70	M10x25	2	105	165	285	255
07	115h6	114.5	126	5	388	50	1.6	M12	20	12	13.5	26	140	80	M12x30	2	115	195	330	295
08	125h6	124.5	136	6	388	55	2.5	M12	20	12	13.5	26	150	85	M12x30	2	125	195	340	300
09	135h6	134.5	147	6	467	60	2.5	M12	20	12	13.5	33	160	90	M12x30	2	135	235	360	345
10	150h6	149.5	162	6	467	65	2.5	M12	20	12	13.5	33	185	110	M12x30	2	150	235	395	365
11	165h6	164.5	177	7	537	70	2.5	M16	28	15	17.5	33	195	120	M16x40	2	165	270	435	420
12	180h6	179.5	192	7	537	75	2.5	M16	28	15	17.5	33	220	130	M16x40	2	180	270	450	420
13	190h6	189.5	206	7	667	80	3	M16	28	18	17.5	33	230	140	M16x40	2	190	335	500	505
14	210h6	209.5	226	8	667	85	3	M16	28	18	17.5	33	250	160	M16x40	2	210	335	525	505
15	230h6	229.5	248	8	756	100	3	M20	38	25	22	39	270	180	M20x55	4	230	380	575	575
16	240h6	239.5	258	8	756	100	3	M20	38	25	22	39	280	180	M20x55	4	240	380	595	575
17	250h6	249.5	270	8	826	110	4	M20	38	25	22	39	300	190	M20x55	4	250	415	615	630
18	275h6	274.5	295	9	826	120	4	M20	38	25	22	39	330	210	M20x55	4	275	415	635	625

8.3 Additional radial force on the output shaft



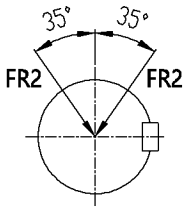


Table 1 Recommended value of additional radial force FR2(kN)

Type	Layout form	Type size														
		04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
H2.. S	A/B/G/H	10	22	22	30	30	30	45	64	64	150	150	140	205	205	205
	C/D	10	13	13	18	18	10	28	35	35	112	112	85	135	135	135
B2.. S	A/C	13	27	27	37	37	38	55	78	78	160	160	150	210	210	210
	B/D	12	15	15	17	17	10	30	35	38	110	110	75	145	100	100
H3.. S	A/B/G/H	-	29	29	40	40	40	60	85	85	190	190	185	265	265	265
H4.. S	C/D	-	-	-												
B3.. S	A/C	14	29	29												
B4.. S	A/C	-														
H3.. S	C/D	-	18	18	26	26	18	40	50	50	150	150	120	185	185	190
H4.. S	A/B	-	-	-												
B3.. S	B/D	9	18	18												
B4.. S	B/D	-														

FRZ2 = FR2 x k

FR2: Additional radial force recommended values, determined according to Table 1

K: is the force coefficient, determined according to Table 2

Instructions:

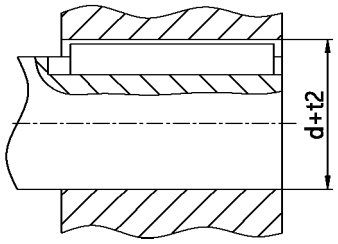
1) The above table is only for a single output shaft, and the layout forms E, F and I are kindly requested.
2) When f1=1.2 is the allowable additional radial force, when f1 > 1.2, the allowable value of FRZ2 should be much greater than the calculated value, please contact if necessary.
3) For details, please contact us about the allowable additional radial force on gear box with frame number ≥19.

The above calculation is only applicable to the allowable additional radial force on the output shaft. If you need the allowable additional radial force on the input shaft d1, please contact us.

Table 2 Force coefficient k

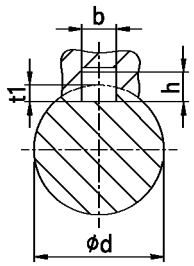
Type size	Distance Z														
	- 200	- 150	- 100	- 75	- 50	- 25	0	25	50	75	100	150	200	250	300
04					1.17	1.08	1	0.86	0.76	0.68	0.62	0.52	0.44		
5 + 6				1.22	1.14	1.06	1	0.88	0.79	0.72	0.66	0.56	0.49	0.43	
7 + 8				1.19	1.12	1.06	1	0.89	0.81	0.74	0.68	0.58	0.51	0.46	0.41
09 + 10			1.22	1.15	1.1	1.05	1	0.9	0.82	0.76	0.7	0.61	0.54	0.48	0.44
11 + 12			1.18	1.13	1.08	1.04	1	0.91	0.84	0.78	0.73	0.64	0.57	0.51	0.47
13 + 14		1.24	1.15	1.11	1.07	1.03	1	0.92	0.86	0.8	0.75	0.67	0.6	0.55	0.5
15 + 16		1.2	1.12	1.09	1.06	1.03	1	0.93	0.87	0.82	0.77	0.69	0.63	0.58	0.53
17 + 18	1.25	1.17	1.11	1.08	1.05	1.03	1	0.94	0.88	0.84	0.79	0.72	0.66	0.6	0.56

8.4 Flat key



Diameter d		Bond width	Key height	Shaft keyway depth	Hub keyway
Greater than	to	b	h	t1	d+t2
17	**22**	6	6	3.5	d+2.8
22	**30**	8	7	4	d+3.3
30	**38**	10	8	5	d+3.3
38	**44**	12	8	5	d+3.3
44	**50**	14	9	5.5	d+3.8
50	**58**	16	10	6	d+4.3
58	**65**	18	11	7	d+4.4
65	**75**	20	12	7.5	d+4.9
75	**85**	22	14	9	d+5.4
85	**95**	25	14	9	d+5.4
95	**110**	28	16	10	d+6.4

Note: The above data conforms to GB/T 1095 and DIN6885/1



Diameter d		Key widt	Key height	Shaft Keyway depth	Hub keyway depth
Greater than	to	b	h	t1	d+t2
110	**130**	32	18	11	d+7.4
130	**150**	36	20	12	d+8.4
150	**170**	40	22	13	d+9.4
170	**200**	45	25	15	d+10.4
200	**230**	50	28	17	d+11.4
230	**260**	56	32	20	d+12.4
260	**290**	63	32	20	d+12.4
290	**330**	70	36	22	d+14.4
330	**380**	80	40	25	d+15.4
380	**440**	90	45	28	d+17.4