

# BEVOX HELI-BEVEL GEARBOXES



**rotomotive**

*Looks good. performs better.*





Our Manufacturing facility in India

Rotomotive Powerdrives India Ltd is an Italian joint venture company operating in India since 2006. It has access to European technology and know-how from Motive srl, one of the joint venture partners and sources parts and components from Indian suppliers. We have a modern manufacturing facility in Gujarat, India. Rotomotive has the capacity to design, prototype and manufacture custom motors for various applications.

Our modern manufacturing plant has advanced machinery for automatic winding, trickle and vacuum pressure impregnation, precise balancing, conveyORIZED assembly, enclosed painting lines, automatic testing facilities with all components bar coded for traceability, consistent quality and low production time.

We also have an advanced testing facility for type testing motors and gearboxes which enables us to plot accurate speed torque curves and carry out temperature rise tests and other type tests as per IEC 60034/IS: 12615.



Gearbox machining



Lean Assembly Line



Geared Motor Testing



Hardness Testing



Backlash Checking



Shop Floor





Our Manufacturing facility in Italy

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A



B



C



D



Uniquely contoured, rigid, precise housing in die cast aluminium.

Housing shape has been optimized to maximize the draining of water or liquid in the event of the gearbox being subjected to splashing or washing



A modular design with detachable output flange and intergral feet permits the easy and fast conversion between flange and foor mounting.



2 safety plastic covers on the output are always provided to protect Bevox during transportation and storage and then the user from accidental contacts with moving parts.



Hypoid gear in the first stage (2 stage gearbox) and in the middle stage (3 stage gearbox), more silent.



## TECHNICAL CHARACTERISTICS



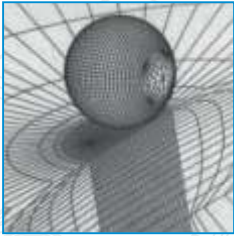
Use of high strength steels like 20CrMnTi and case hardening to  $60 \pm 2$  HRC reduce the wear rate in wheels. All wheels are profiles ground to DIN 3962 class 6 accuracy for low noise and high efficiency.



5 interchangeable plugs, including one breather plug and a level plug. Please note that the vent plug also allows you to reduce the internal pressure on seals, and thus increases the efficiency of the gearbox.



Mating surfaces are machined for perfect perpendicularity.



The surface is exposed to a bombardment of micro-spheres that induces compression and increases further the fatigue resistance.



+mechanical parts locked in their positions by snap rings and spacers. This also ensures better absorption of axial thrust and prolongs the life of bearings.



Shafts are made from high strength alloy steel.



IEC flange and hollow shaft. Choice of hollow input flanges permits direct mounting of any standard motor.



Unique construction of Bevox makes it possible to mount any size in any position.  
This flexibility is achieved by:  
+ZZ prelubricated bearings on input and output shaft



## Rated output torque $M_{n2}$ (Nm)

Torque output transmissible under uniform loading and referred to the input speed  $n_1$  and the corresponding output speed  $n_2$ . The output torque can be calculated with the following formula:

$$M_{n2} = \frac{P_{n1} [\text{kW}] \cdot 9550}{n_2} \cdot \eta$$

## Torque demand $M_{r2}$ (Nm)

Torque calculated based on application requirements. It must be  $< M_{n2}$  of the chosen Bevox unit.

## Input power $P_{n1}$ (kW)

This is the power value of the motor applied to the input shaft and corresponding to a certain input speed  $n_1$ , a service factor  $f_s = 1$  and a duty service  $S_1$ .

It is even possible to calculate the motor size necessary by using the formula:

$$P_{n1} [\text{kW}] = \frac{M_{r2} \cdot n_2}{9550 \cdot \eta}$$

Since the value calculated in this way could not really correspond to an input power actually available in the IEC standardised motors, it will be necessary to choose, among the input powers available, the one which is immediately higher, checking this in the Rotomotive catalogue of the motors.

## Efficiency $\eta$ (%)

An inherent factor in the selection helical gear boxes is the efficiency  $\eta$ , defined as the ratio between the mechanical power coming out from the output shaft, and the power in the input shaft:

$$\eta = \frac{P_{n2}}{P_{n1}}$$

The efficiency in helical gearboxes is mainly determined by the gearing and

bearing friction.

The efficiency of Bevox varies with the nr of stage: It's 90% when the reduction stages are 3, 92% when the stages are 2. The starting efficiency is always less than the efficiency at rated speed.

## Gear ratio $i$

It is the relationship of the input speed  $n_1$  and the output speed  $n_2$

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

In the combined, the total ratio is the result of the product of the ratio of the two single gearboxes.

## Input speed $n_1$ (rpm)

It is the speed the Bevox unit is driven at.

## Output speed $n_2$ (rpm)

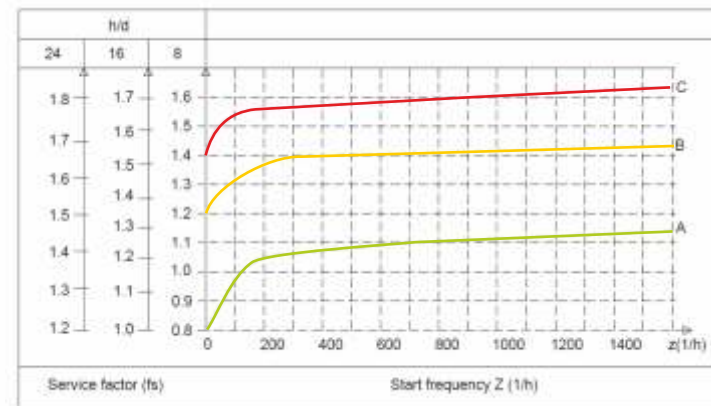
It is the rotation speed of the output shaft.

## Service factor $f_s$

It is a numeric value describing the Bevox unit service duty. With unavoidable approximation, it takes into consideration:

- The daily working hours **h/d**
- The load classification (see table 2), and then the moment of inertia of the driven masses.
- The number of starts per hour **s/h**
- The presence of brake motors, for which it is necessary to multiply for 1.12 the service factor value deducted by the graph 2.
- The significance of the application in terms of safety, for example lifting of parts.

In the graph 2, the service factor  $f_{sr}$  required by a certain application can be attained, after having selected the proper "daily working hours" (h/d) column, by intersecting the number of starts per hour (s/h) and one of the a, b or c curves. The curves a, b and c are linked with the load classification described in the table 2.



tab. 2

load Classification	Application
c	uneven operation, heavy loads, larger masses to be accelerated
b	starting with moderate loads, uneven operating conditions, medium size masses to be accelerated
a	easy starting, smooth operation, small masses be accelerated

If, after the selection of the right  $M_{r2}$  and  $n_2$  in the following performance tables, you don't find a Bevox unit whose service factor  $f_s$  is  $>$  of the requested one  $f_{sr}$ , you can choose a Bevox unit in which  $M_{n2} > M_{r2}$ .

In fact, in order to satisfy  $f_{sr}$ , you can choose another Bevox unit whose output torque is  $> M_{c2}$  output torque, where:

$$M_{c2} = M_{r2} \cdot f_{sr}$$

Note: This rule is valid only if the new Bevox unit that has been selected in this way has a service factor  $f_s > 1$  in the performance tables.

From another point of view, the value of  $f_s$  in the performance tables refers to a case

in which the effective torque requested by the application  $M_{r2}$  matches perfectly with the one appearing on the catalogue  $M_{n2}$ . Whenever the torque indicated in the performance table is higher than the requested one, the offered service factor of the performance table can be increased according to the formula:

$$f_{s \text{ real}} = \frac{f_s \text{ on the table} \cdot M_{n2} \text{ on the table}}{M_{r2}}$$

The value of  $f_s$  calculated in this way must be  $\geq f_{sr}$ .

## LUBRICATION & MOUNTING POSITION

Each BEVOX is supplied with long-life synthetic oil and do not require any maintenance.

BEVOX	Oil (lt.)						ISO	Temp.	Oil Type
	B3	B6	B7	B8	V5	V6			
V0502	0.22	0.20	0.13	0.15	0.25	0.14	Vg320	-5 °C to +50 °C	Shell Tivela: S320  Klubersynth: GH6-320
V0503	0.08	0.05	0.06	0.06	0.09	0.10			
V0632	0.42	0.35	0.24	0.22	0.46	0.25			
V0633	0.07	0.05	0.05	0.06	0.09	0.10			
V0752	0.70	0.58	0.42	0.42	0.75	0.45			
V0753	0.15	0.11	0.11	0.11	0.17	0.20			
V0902	1.21	0.95	0.72	0.67	1.30	0.74			
V0903	0.15	0.11	0.11	0.11	0.17	0.20			

V050-2 means Bevox050 in 2 stages & V050-3 means Bevox050 in 3 stages. In case of 3 stage gearboxes, input cover (part no. 4, refer page 12) to be filled with quantity mentioned in table. Bevox is supplied with oil filled from factory but in case of maintenance at sight / service center, input cover to be filled separately.

After adapting the oil quantity, each BEVOX can be mounted in ANY position, thus giving big advantages in the inventory reduction and interchangeability due to the following 3 characteristics:

In smaller ratios there may be some seepage of oil from the breather plug at certain speed due to churning action of gears. In such cases spring loaded breather plug or breather plug with extended pipe or solid plug may be used. For some applications, breather plug may be must in spite of possibility of oil leakage. For such case please contact Rotomotive.



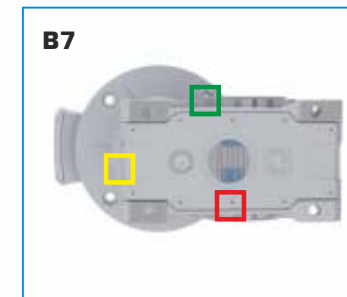
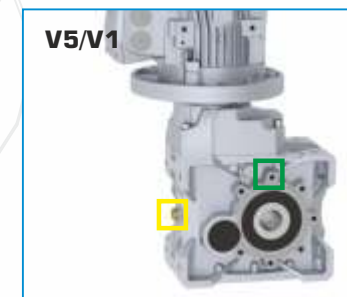
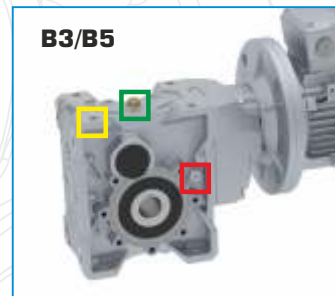
ZZ shielded pre lubricated bearings on input and output shaft



5 interchangeable plugs, including one breather plug and a level plug. Level and breather plug must be positioned according to this chart



Mechanical parts locked in their positions by circlips and spacers. This also ensures better absorption of axial thrust and prolongs the life of bearings.



### B5, V1 & V3 positions are for flange mounted



breather plug



level plug



filter plug



## PERFORMANCE TABLE

BEVOX 50																						
Input 63, 71, 80,	Rated Ratio	7.5	10	12.5	15	20	25	30	40	50	60	50	60	75	100	125	150	200	250	300		
	Real Ratio	7.73	10.47	12.47	14.92	20.21	24.07	29.33	40.09	48.86	58.36	52.36	62.36	74.62	101.04	120.34	146.67	200.44	244.29	291.79		
	Stages	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	
	Peak Torque, Nm	80	100	130	80	100	130	130	130	130	130	100	130	80	100	130	130	130	130	130	130	
	Bevox 50 with 2 Pole / 2880 RPM																					
	Speed	372.6	275.1	231.0	193.0	142.5	119.7	98.2	71.8	58.9	49.3	55.0	46.2	38.6	28.5	23.9	19.6	14.4	11.8	9.9		
	0.18	63A	4.2	5.7	6.8	8.2	11.1	13.2	16.1	22.0	26.8	32.0	28.1	33.5	40.1	54.3	64.6	78.8	107.7	BEVOX 63		
	0.25	63B	5.9	8.0	9.5	11.4	15.4	18.4	22.4	30.6	37.3	44.5	39.1	46.5	55.7	75.4	89.8	109.4	BEVOX 63		BX 75	
	0.37	71A	8.7	11.8	14.1	16.8	22.8	27.2	33.1	45.3	55.2	65.9	57.8	68.9	BEVOX 63				BEVOX 75			
	0.55	71B	13.0	17.6	20.9	25.0	33.9	40.4	49.2	67.3	82.0	97.9	85.9	102.4	BEVOX 75				BEVOX 90			
0.75	80A	17.7	24.0	28.5	34.1	46.2	55.1	67.1	BEVOX 63				BEVOX 75				BX 90					
1.10	80B	25.9	35.1	41.8	50.1	67.8	80.8	98.4	BEVOX 63			BEVOX 75			BEVOX 90							
Output F, FL, SOS, DOS, TA	Bevox 50 with 4 Pole / 1440 RPM																					
	Speed	186.3	137.5	115.5	96.5	71.3	59.8	49.1	35.9	29.5	24.7	27.5	23.1	19.3	14.3	12.0	9.8	7.2	5.9	4.9		
	0.12	63A	5.7	7.7	9.1	10.9	14.8	17.6	21.5	29.4	35.8	42.7	37.5	44.7	53.4	72.4	86.2	105.1	BEVOX 63		BX 75	
	0.18	63B	8.5	11.5	13.7	16.4	22.2	26.4	32.2	44.0	53.7	64.1	56.3	67.0	BEVOX 63		129.3	BX 63	BEVOX 75			
	0.25	71A	11.8	16.0	19.0	22.8	30.8	36.7	44.7	61.2	74.5	89.0	78.1	93.1	BEVOX 75		BX 63	BEVOX 75		BEVOX 90		
	0.37	71B	17.5	23.6	28.2	33.7	45.6	54.3	66.2	90.5	110.3	BEVOX 63			BEVOX 75				BX 90			
	0.55	80A	25.9	35.1	41.8	50.1	67.8	80.8	98.4	BEVOX 63			BEVOX 75			BEVOX 90						
	0.75	80B	35.4	47.9	57.1	68.3	92.5	110.1	BX 63	BEVOX 75												
	Bevox 50 with 6 Pole / 960 RPM																					
	Speed	124.2	91.7	77.0	64.3	47.5	39.9	32.7	23.9	19.6	16.4	18.3	15.4	12.9	9.5	8.0	6.5	4.8	3.9	3.3		
0.18	71A	12.7	17.2	20.5	24.6	33.3	39.7	48.3	66.0	80.5	96.1	84.4	100.5	BEVOX 75				BEVOX 90				
0.25	71B	17.7	24.0	28.5	34.1	46.2	55.1	67.1	91.7	111.8	BEVOX 63			BEVOX 75				BX 90				
0.37	80A	26.2	35.5	42.2	50.5	68.4	81.5	99.3	BEVOX 63			BEVOX 75			BEVOX 90							
0.55	80B	38.9	52.7	62.8	75.1	BX 63	121.2	BX 63	BEVOX 75			BEVOX 90										

Bevox050	Ratio	7.5	10	12.5	15	20	25	30	40	50	60	50	60	75	100	125	150	200	250	300
	Stages	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3
Input	63																			
	71																			
	80																			



## PERFORMANCE TABLE

BEVOX 63																							
Input 71, 80, 90	Rated Ratio	7.5	10	12.5	15	20	25	30	40	50	60	50	60	75	100	125	150	200	250	300			
	Real Ratio	7.60	10.50	12.67	14.67	20.25	24.44	30.31	39.29	48.71	60.50	52.48	63.33	73.33	101.27	122.22	151.56	196.43	243.57	300.50			
	Stages	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3			
	Peak Torque, Nm	110	150	180	110	150	180	200	180	200	200	150	180	110	150	180	200	180	200	200			
	Bevox 63 with 2 Pole / 2880 RPM																						
	Speed	378.9	274.3	227.3	196.3	142.2	117.8	95.0	73.3	59.1	47.6	54.9	45.5	39.3	28.4	23.6	19.0	14.7	11.8	9.6			
	0.37	71A	BEVOX 50											81.0	111.8	135.0	167.4	BEVOX 75					
	0.55	71B	BEVOX 50											BEVOX 75				BEVOX 90					
	0.75	80A	BEVOX 50											138	117	142	BEVOX 75				BX 90		
	1.10	80B	BEVOX50											131.8	163.5	BEVOX 75				BEVOX 90			
1.50	90S	BEVOX 50											138.7	BEVOX 75									
2.20	90L	BEVOX 50			98.5	135.9	164.0	BEVOX 75				BEVOX 90											
Output F, FL, SOS, DOS, TA	Bevox 63 with 4 Pole / 1440 RPM																						
	Speed	189.5	137.1	113.7	98.2	71.1	58.9	47.5	36.7	29.6	23.8	27.4	22.7	19.6	14.2	11.8	9.5	7.3	5.9	4.8			
	0.25	71A	BEVOX 50											109.4	BEVOX 75				BEVOX 90				
	0.37	71B	BEVOX 50											136.6	115.9	139.9	BEVOX 75				BX 90		
	0.55	80A	BEVOX 50											131.8	163.5	BEVOX 75				BEVOX 90			
	0.75	80B	BEVOX 50											138.7	179.8	BEVOX 75							
	1.1	90S	BEVOX 50			98.5	135.9	164.0	BEVOX 75				BEVOX 90										
	1.5	90L	BEVOX 50			BEVOX 75				BEVOX 90													
	Bevox 63 with 6 Pole / 960 RPM																						
	Speed	126.3	91.4	75.8	65.4	47.4	39.3	31.7	24.4	19.7	15.9	18.3	15.2	13.1	9.5	7.9	6.3	4.9	3.9	3.2			
0.18	71A	BEVOX 50											BEVOX 75				BEVOX 90						
0.25	71B	BEVOX 50											138.4	117.5	141.8	BEVOX 75				BX 90			
0.37	80A	BEVOX 50											133.0	164.9	BEVOX 75				BEVOX 90				
0.55	80B	BEVOX 50			101.9	BX 50	152.6	BEVOX 75				BEVOX 90											
0.75	90S	BEVOX 50			100.7	139.0	167.8	BEVOX 75				BEVOX 90											
1.1	90L	BX 50	105.7	BX 50	BEVOX 75				BEVOX 90														

Bevox063	Ratio	7.5	10	12.5	15	20	25	30	40	50	60	50	60	75	100	125	150	200	250	300
		Stages	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3
Input	71																			
	80																			
	90																			

## PERFORMANCE TABLE

BEVOX 75																								
Input 71, 80, 90,100, 112	Rated Ratio	7.5	10	12.5	15	20	25	30	40	50	60	50	60	75	100	125	150	200	250	300				
	Real Ratio	7.48	9.84	12.49	16.09	19.84	25.19	30.24	40.13	48.18	59.44	49.18	62.43	75.45	99.22	125.95	151.20	200.66	240.89	297.21				
	Stages	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3				
	Peak Torque, Nm	200	240	300	200	240	300	350	300	350	350	240	300	200	240	300	350	300	350	350				
	Bevox 75 with 2 Pole / 2880 RPM																							
	Speed	385.0	292.7	230.6	179.0	145.2	114.3	95.2	71.8	59.8	48.5	58.6	46.1	38.2	29.0	22.9	19.0	14.4	12.0	9.7				
	0.37	71A	BEVOX 50										BEVOX 63					221.6	266.0	328.2				
	0.55	71B	BEVOX 50										BEVOX 63					123.8	162.9	248.2	BEVOX 90			
	0.75	80A	BEVOX 50										BEVOX 63					168.9	222.1	281.9	338.4	BX 90		
	1.10	80B	BEVOX 50										BEVOX 63					161.4	204.9	BEVOX 90				
1.50	90S	BEVOX 50										BX 63	183.6	220.5	272.0	220.2	279.5							
2.20	90L	BEVOX 50					BEVOX 63					203.0	269.3	323.4	BEVOX 90									
3.70	100L	BEVOX 63					181.6	223.9	284.3	341.3	BX 90													
Output F, FL, SOS, DOS, TA	Bevox 75 with 4 Pole / 1440 RPM																							
	Speed	192.5	146.3	115.3	89.5	72.6	57.2	47.6	35.9	29.9	24.2	29.3	23.1	19.1	14.5	11.4	9.5	7.2	6.0	4.8				
	0.25	71A	BEVOX 50										BEVOX 63					112.6	148.1	187.9	225.6	299.4	359.5	443.5
	0.37	71B	BEVOX 50										BEVOX 63					166.6	219.1	278.2	333.9	BX 90		
	0.55	80A	BEVOX 50										BEVOX 63					161.4	204.9	BEVOX 90				
	0.75	80B	BEVOX 50										BX 63	183.6	220.5	272.0	220.2	279.5						
	1.1	90S	BEVOX 50					BEVOX 63					203.0	269.3	323.4	BEVOX 90								
	1.5	90L	BEVOX 50					147.3	181.6	230.5	276.8	BEVOX 90												
	2.2	100L	BEVOX 63					BEVOX 90																
	3.7	112M	168.9	222.1	282.0																			
Bevox 75 with 6 Pole / 960 RPM																								
Speed	128.3	97.6	76.9	59.7	48.4	38.1	31.7	23.9	19.9	16.2	19.5	15.4	12.7	9.7	7.6	6.3	4.8	4.0	3.2					
0.18	71A	BEVOX 50										BEVOX 63					121.6	159.9	203.0	243.7	BEVOX 90			
0.25	71B	BEVOX 50										BEVOX 63					168.9	222.1	281.9	338.4	BX 90			
0.37	80A	BEVOX 50										BEVOX 63					201.3	162.9	206.8	BEVOX 90				
0.55	80B	BEVOX 50					BX 63	BX 50	BX 63	202.0	242.5	299.2	BEVOX 90											
0.75	90S	BEVOX 50					110.4	BEVOX 63					207.6	275.5	330.7	BEVOX 90								
1.1	90L	BEVOX 50					162.0	199.7	253.6	304.4	BEVOX 90													
1.5	100L	BEVOX 63					BEVOX 90																	
2.2	112M	150.6	198.1	251.5																				

Bevox075	Ratio	7.5	10	12.5	15	20	25	30	40	50	60	50	60	75	100	125	150	200	250	300
	Stages	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3
Input	71																			
	80																			
	90																			
	100																			
	112																			



## PERFORMANCE TABLE

BEVOX 90																							
Input 80, 90, 100, 112	Rated Ratio	7.5	10	12.5	15	20	25	30	40	50	60	50	60	75	100	125	150	200	250	300			
	Real Ratio	7.48	9.84	12.49	15.09	19.84	25.19	30.24	40.13	48.18	59.04	49.18	62.43	75.45	99.22	125.95	151.20	200.66	240.89	295.18			
	Stages	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3			
	Peak Torque , Nm	300	380	480	300	380	480	500	480	500	500	380	480	300	380	480	500	480	500	500			
	Bevox 90 with 2 Pole / 2880 RPM																						
	Speed	385.0	292.7	230.6	190.9	145.2	114.3	95.2	71.8	59.8	48.8	58.6	46.1	38.2	29.0	22.9	19.0	14.4	12.0	9.8			
	0.75	80A	BEVOX 50						BEVOX 63			BEVOX 75				449.1							
	1.10	80B	BEVOX 50						BEVOX 63			BEVOX 75				247.7	325.7	413.5	496.4				
	1.50	90S	BEVOX 50						BX 63			BEVOX 75											
	2.20	90L	BEVOX 50			BEVOX 63			BEVOX 75			396.2	322.9	409.9									
3.70	100L	BEVOX 63			BEVOX 75			453.0															
Output F, FL, SOS, DOS, TA	Bevox 90 with 4 Pole / 1440 RPM																						
	Speed	192.5	146.3	115.3	95.4	72.6	57.2	47.6	35.9	29.9	24.4	29.3	23.1	19.1	14.5	11.4	9.5	7.2	6.0	4.9			
	0.55	80A	BEVOX 50						BEVOX 63			BEVOX 75				247.7	325.7	413.5	496.4				
	0.75	80B	BEVOX 50						BX 63			BEVOX 75											
	1.1	90S	BEVOX 50			BEVOX 63			BEVOX 75			396.2	322.9	409.9									
	1.5	90L	BEVOX 50			BEVOX 75			367.3	440.9													
	2.2	100L	BEVOX 63		202.6	266.3	338.1	405.9															
	3.7	112M	BEVOX 75																				
	Bevox 90 with 6 Pole / 960 RPM																						
	Speed	128.3	97.6	76.9	63.6	48.4	38.1	31.7	23.9	19.9	16.3	19.5	15.4	12.7	9.7	7.6	6.3	4.8	4.0	3.3			
0.37	80A	BEVOX 50						BEVOX 63			BEVOX 75				249.9	328.7	417.2						
0.55	80B	BEVOX 50						BX 63			BEVOX 75				242.2	307.4							
0.75	90S	BEVOX 50			BEVOX 63			BEVOX 75			405.3	330.2	419.2										
1.1	90L	BEVOX 50			BEVOX 75			404.0	485.0														
1.5	100L	BEVOX 63		207.2	272.4	345.8	415.1																
2.2	112M	BEVOX 75																					

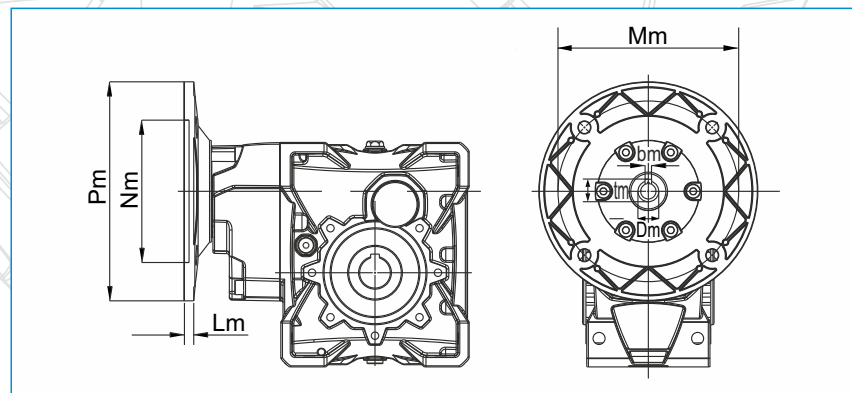
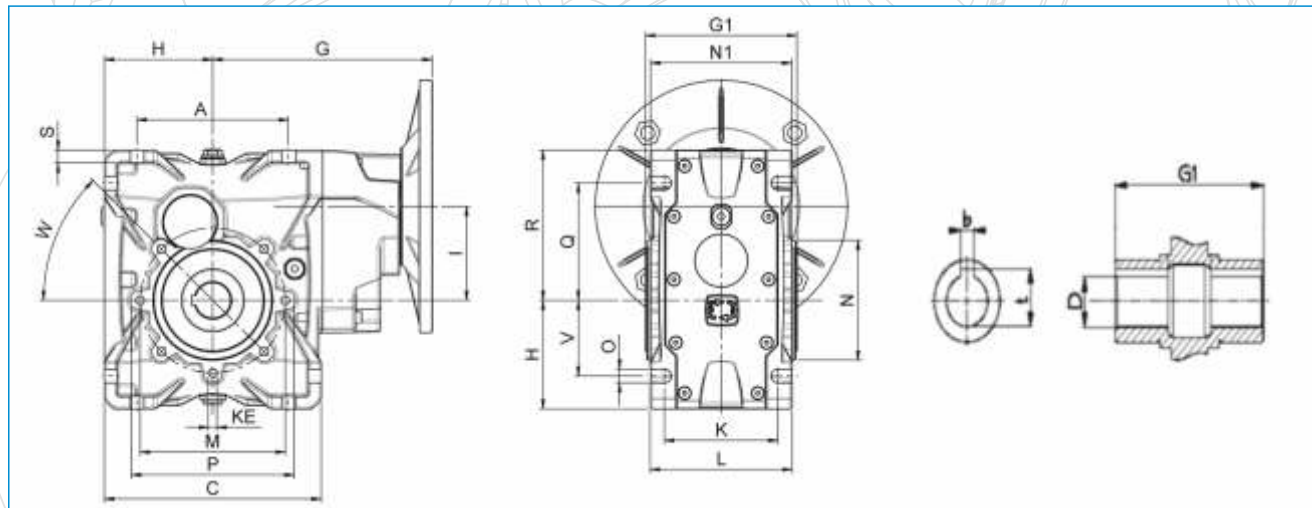
Bevox063	Ratio	7.5	10	12.5	15	20	25	30	40	50	60	50	60	75	100	125	150	200	250	300
	Stages	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3
Input	80																			
	90																			
	100																			
	112																			

Note : Efficiency is computed considering the frictional losses of output seals, bearing frictional losses and lubrication losses. Torque increases by 3% in 2 stage gearboxes and 5% in 3 stage gearboxes if these losses are not considered

# DIMENSIONAL TABLES

## BEVOX general data

Bevox type	A	C	G	H	I	K	KE	L	M	N(h8)	N1	O	P	Q	R	S	V	W	output				Kgs
																			G1	D(H8)	b	t	
BEVOX050-2	80	121	132.5	60	57	70	M8X14 (n°4)	86	85	70	87	8.5	100	75	95	8	40	45°	92	25	8	28.3	4.5
BEVOX050-3			148		21.5																		5
BEVOX063-2	100	144	143.5	72	64.5	85	M8X16 (n°7)	103	95	80	106	8.5	110	80	102	9	50	45°	112	25	8	28.3	6.3
BEVOX063-3			169		29																		7
BEVOX075-2	120	173	174	86	74.5	90	M8X22 (n°7)	112.5	115	95	114	11	130	93	119	10	60	45°	120	28	8	31.3	9.9
BEVOX075-3			203		30.5																		10.9
BEVOX090-2	140	208	192	103	85	100	M10X22 (n°7)	130	130	110	134	13	153	102	135	11	70	45°	140	35	10	38.3	13.9
BEVOX090-3			220		44																		14.9



## Bevox Input Flange Data

BEVOX type	motor	type	Nm	Mm	Pm	Dm	Lm	tm	bm
BEVOX050	63	B5	95	115	140	11	12	12.8	4
	71	B5	110	130	160	14	11	16.3	5
		B14(*)	70	85	105	14	8.5		
BEVOX063	80	B5	130	165	200	19	13	21.8	6
		B14(*)	80	100	120	19	8		
	71	B5	110	130	160	14	12	16.3	5
BEVOX075	80	B5	130	165	200	19	13	21.8	6
		B14(*)	80	100	120	19	8		
	90	B5	130	165	200	24	13	27.3	8
BEVOX090	71	B5	110	130	160	14	12	16.3	5
		B14(*)	70	85	105	14	8		
	80	B5	130	165	200	19	11	21.8	6
		B14(*)	80	100	120	19	11		
	90	B5	130	165	200	24	11	27.3	8
100	B5	180	215	250	28	11	31.3	8	
B14(*)	110	130	160	28	13				
BEVOX090	80	B5	130	165	200	19	11	21.8	6
		B14(*)	80	100	120	19	11		
	90	B5	130	165	200	24	11	27.3	8
		B14(*)	95	115	140	24	11		
	100	B5	180	215	250	28	11	31.3	8
B14(*)		110	130	160	28	13			
112	B5	180	215	250	28	12			

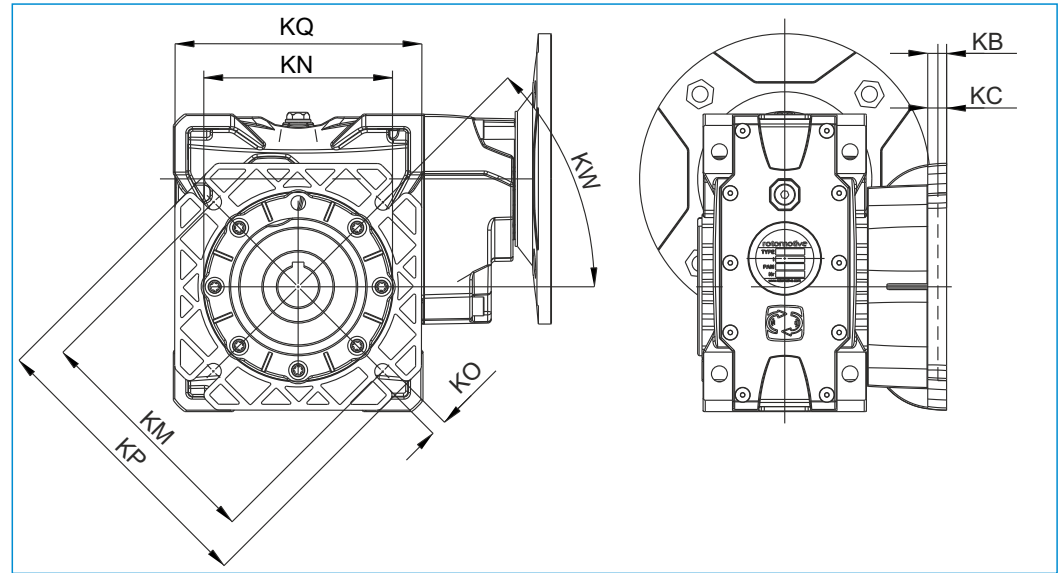


## DIMENSIONAL TABLES

type	output flange F									output flange FL								
	KA	KB	KC	KM	KN (H8)	KO	KP	KQ	KW	KA	KB	KC	KM	KN	KO	KP	KQ	KW
BEVOX50	90	9	5	85	70	11 (n°4)	125	110	45°	120	9	5	85	70	11 (n°4)	125	110	45°
BEVOX63	82	10	6	150	115	11 (n°4)	180	142	45°	112	10	6	150	115	11 (n°4)	180	142	45°
BEVOX75	111	13	6	165	130	14 (n°4)	200	170	45°	-	-	-	-	-	-	-	-	-
BEVOX90	111	13	6	175	152	14 (n°4)	210	200	45°	-	-	-	-	-	-	-	-	-



BEVOX + F/FL



### Accessories

Torque arm					
Type	K1	G	KG	KH	R
BEVOX50	100	14	38,5	10	18
BEVOX63	150	14	49	10	18
BEVOX75	200	25	47,5	20	30
BEVOX90	200	25	57,5	20	30

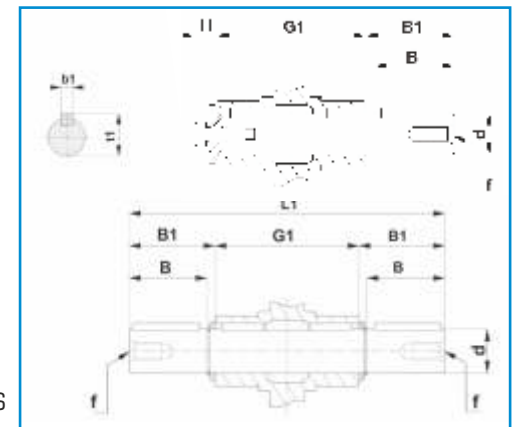
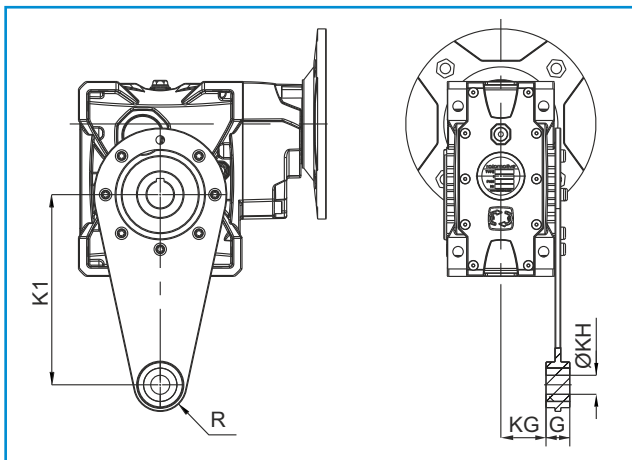


BEVOX + TA

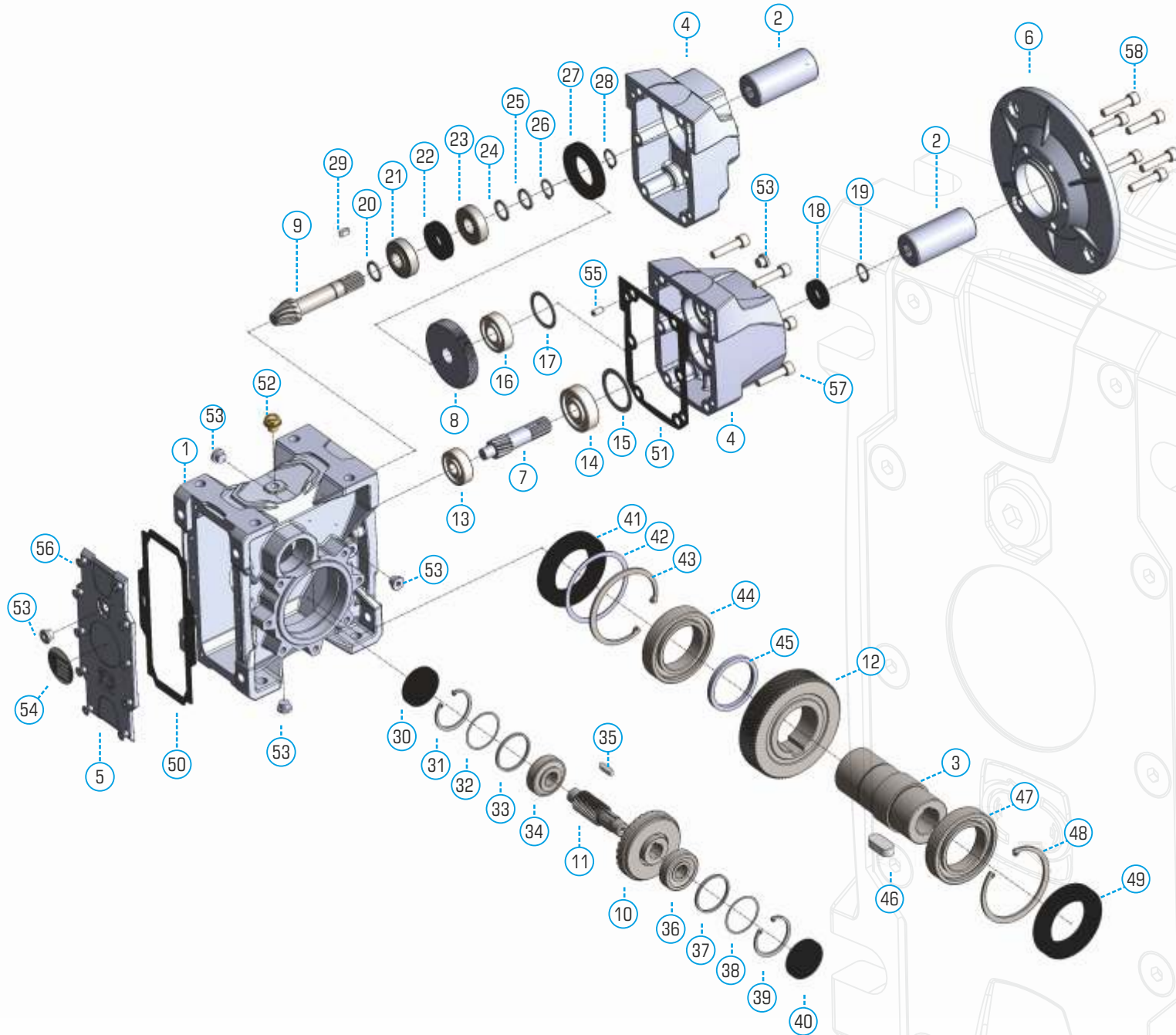
Single & double output shaft									
Type	d(h6)	B	B1	G1	H	L1	f	b1	t1
BEVOX50	25	50	53,5	92	13	199	M8	8	28
BEVOX63	25	50	53,5	112	13	219	M8	8	28
BEVOX75	28	60	63,5	120	15	247	M10	8	31
BEVOX90	35	80	84	140	15	308	M12	10	38



BEVOX + SOS + DOS



# COMPONENTS LIST



No	Description	No	Description
1	housing	30	closing cap
2	input shaft sleeve	31	snpa ring
3	output shaft	32	washer
4	input cover	33	shim ring
5	side cover	34	bearing
6	input flange	35	key
7	pinion 1	36	bearing
8	gear 1	37	shim ring
9	pinion 2	38	washer
10	gear 2	39	snap ring
11	pinion 3	40	closing cap
12	gear 3	41	oilseal
13	bearing	42	shim ring
14	bearing	43	snap ring
15	shim ring	44	bearing
16	bearing	45	spacer
17	shim ring	46	key
18	oil seal	47	bearing
19	snap ring	48	snap ring
20	shim ring	49	oil seal
21	bearing	50	rubber gasket
22	oil seal	51	Input gasket
23	bearing	52	breather plug
24	shim ring	53	oil plug
25	washer	54	name plate
26	snap ring	55	deovel pin
27	oil seal	56	screw
28	snap ring	57	screw
29	key	58	screw

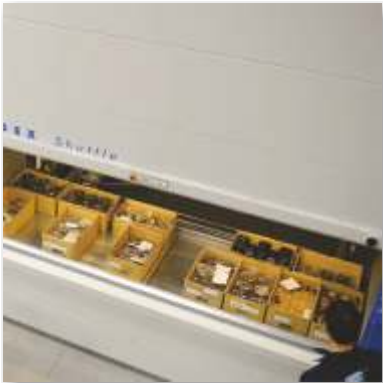




CMM for Mechanical Inspection



Gear Lead & Profile Tester



KARDEX for Gear Storage



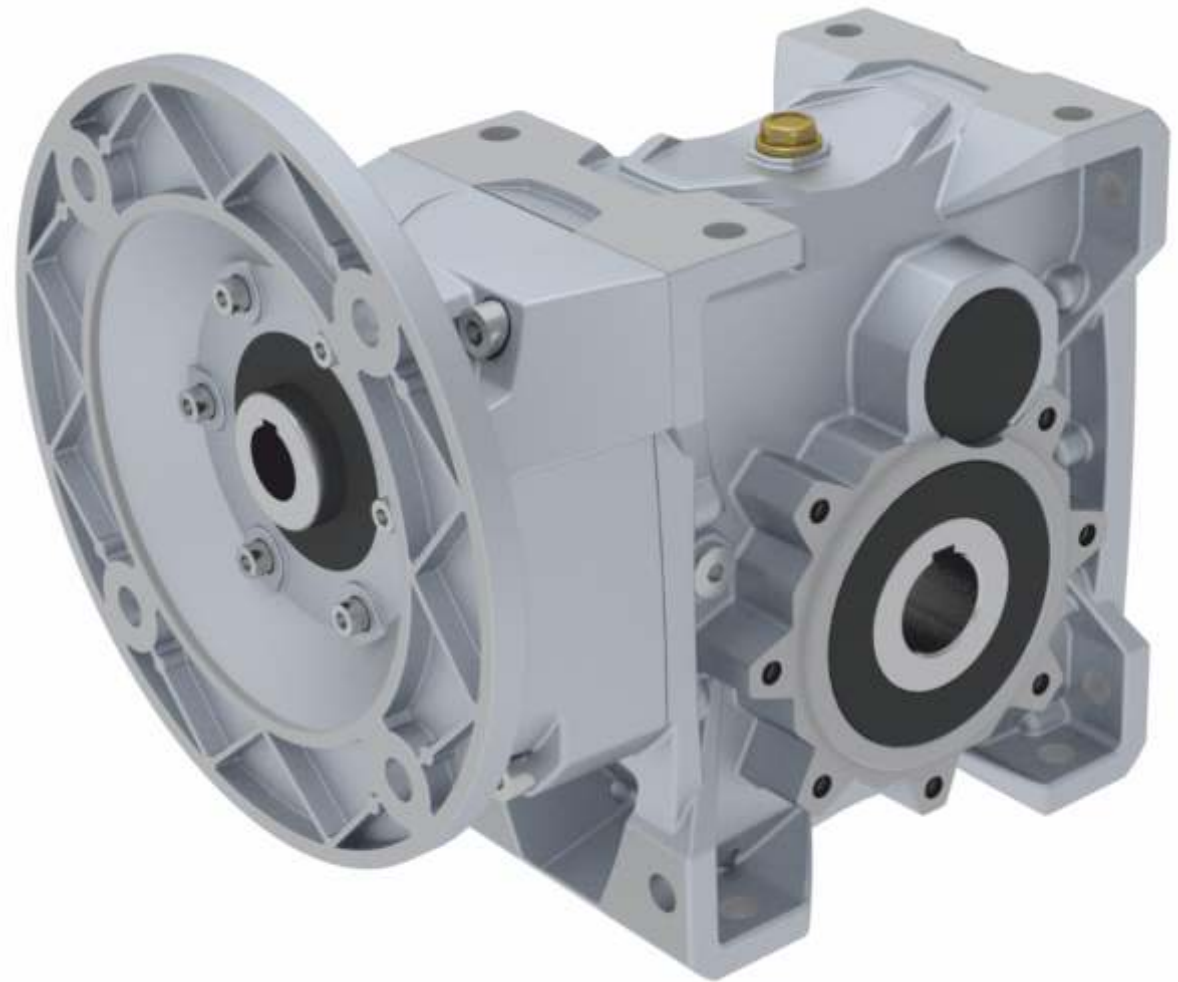
Gear Profile Grinding



Magnifying Glass to Check Gear



Gearbox Machining



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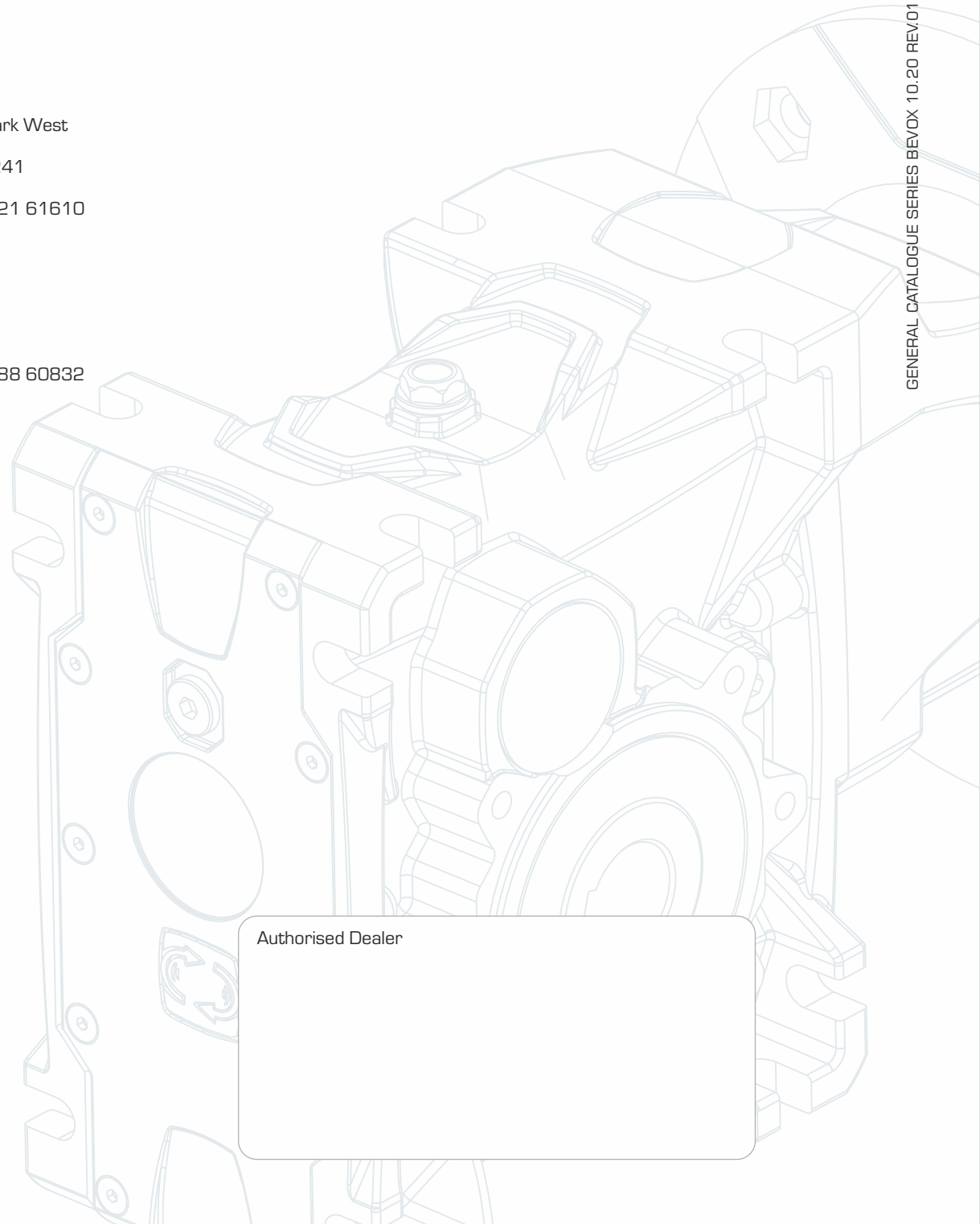
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