

Bevel gearboxes BG Series

Technical features summary

SIZE	BG 86	BG 110	BG 134
Housing side dimensions [mm]	86	110	134
Ratio	1 : 1 1 : 1.5 1 : 2 1 : 3 1 : 4		
Total efficiency (η)	0.90 \leq η \leq 0.93 (*)		
Input: solid shaft, cylindrical with key, STANDARD diameter [mm]	\varnothing 16 j6	\varnothing 20 j6	\varnothing 24 j6
Input: solid shaft, cylindrical with key, LARGER diameter [mm]	\varnothing 24 j6	\varnothing 26 j6	\varnothing 32 j6
Input: IEC motor flange	IEC 71 B5 IEC 80 B5 IEC 80 B14	IEC 80 B5 IEC 80 B14 IEC 90 B5 IEC 90 B14	IEC 90 B5 IEC 100-112 B5 IEC 100-112 B14
Output: solid shaft, cylindrical with key	\varnothing 24 j6	\varnothing 26 j6	\varnothing 32 j6
Output: hollow shaft with cylindrical hole and keyway	\varnothing 16 H7	\varnothing 20 H7	\varnothing 24 H7
Output: solid shaft with hub, cylindrical with key, STANDARD diameter [mm]	\varnothing 16 j6	\varnothing 20 j6	\varnothing 24 j6
Output: solid shaft with hub, cylindrical with key, LARGE diameter [mm]	\varnothing 24 j6	\varnothing 26 j6	\varnothing 32 j6
Gearbox housing, shaft hub and covers material	grey cast iron EN-GJL-250 (UNI EN 1561)		
Solid input shaft material	steel C45E +H +QT (UNI EN 10083-2), hardened and tempered		
Hollow input shaft material	steel C45E +H +QT (UNI EN 10083-2), hardened and tempered		
Solid output shaft material	steel C45E +H +QT (UNI EN 10083-2), hardened and tempered		
Hollow output shaft material	steel 39 NiCrMo 3 (UNI EN 10083-3), hardened and tempered		
Bevel gears	toothings: spiral GLEASON material: steel 20 MnCr 5 (UNI EN 10084), case-hardened lapped in pairs		
Input - solid shaft: bearings	2 \times 6005	2 \times 32006	2 \times 32007
Input - flange and hollow shaft for IEC motor: bearings	6005 + 6205	6007 + 6207	6008 + 6208
Main output – solid or hollow shaft: bearings	2 \times 6005	2 \times 32006	2 \times 32007
Additional output – solid shaft with hub: bearings	2 \times 6005	2 \times 32006	2 \times 32007
Gearbox mass [kg] (gearbox with solid input shaft and solid output shaft on both sides)	3.5	9	18

* value referred to bevel gearboxes without additional output

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Technical features summary

BG 166	BG 200	BG 250	SIZE		
166	200	250	Housing side dimensions [mm]		
1 : 1	1 : 1.5	1 : 2	1 : 3	1 : 4	Ratio
$0.90 \leq \eta \leq 0.93$ (*)					Total efficiency (η)
$\varnothing 32$ j6	$\varnothing 42$ j6	$\varnothing 55$ j6	Input: solid shaft, cylindrical with key, STANDARD diameter [mm]		
$\varnothing 45$ j6	$\varnothing 55$ j6	$\varnothing 70$ j6	Input: solid shaft, cylindrical with key, LARGER diameter [mm]		
90 B5 100-112 B5 100-112 B14	100-112 B5 132 B5 132 B14	132 B5 160 B5	Input: IEC motor flange		
$\varnothing 45$ j6	$\varnothing 55$ j6	$\varnothing 70$ j6	Output: solid shaft, cylindrical with key		
$\varnothing 32$ H7	$\varnothing 42$ H7	$\varnothing 55$ H7	Output: hollow shaft with cylindrical hole and keyway		
$\varnothing 32$ j6	$\varnothing 42$ j6	$\varnothing 55$ j6	Output: solid shaft with hub, cylindrical with key, STANDARD diameter [mm]		
$\varnothing 45$ j6	$\varnothing 55$ j6	$\varnothing 70$ j6	Output: solid shaft with hub, cylindrical with key, LARGE diameter [mm]		
grey cast iron EN-GJL-250 (UNI EN 1561)			Gearbox housing, shaft hub and covers material		
steel C45E +H +QT (UNI EN 10083-2), hardened and tempered			Solid input shaft material		
steel C45E +H +QT (UNI EN 10083-2), hardened and tempered			Hollow input shaft material		
steel C45E +H +QT (UNI EN 10083-2), hardened and tempered			Solid output shaft material		
steel 39 NiCrMo 3 (UNI EN 10083-3), hardened and tempered			Hollow output shaft material		
toothings: spiral GLEASON material: steel 20 MnCr 5 (UNI EN 10084), case-hardened lapped in pairs			Bevel gears		
2 × 32010	2 × 32012	2 × 32016	Input - solid shaft: bearings		
2 × 32010	2 × 32012	2 × 32016	Input - flange and hollow shaft for IEC motor: bearings		
2 × 32010	2 × 32012	2 × 30215	Main output – solid or hollow shaft: bearings		
2 × 32010	2 × 32012	2 × 32016	Additional output – solid shaft with hub: bearings		
32	60	145	Gearbox mass [kg] (gearbox with solid input shaft and solid output shafts on both sides)		

* value referred to bevel gearboxes without additional output