

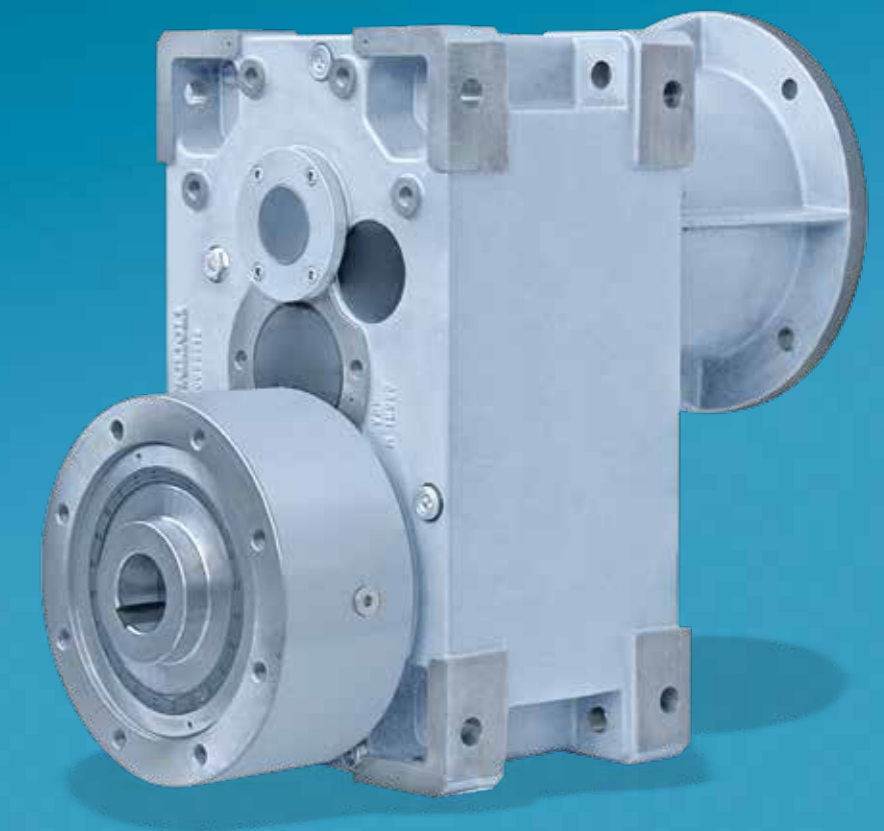


## HDPE

Gearboxes for single-screw extruders



Bonfiglioli has been designing and developing innovative and reliable power transmission and control solutions for industry, mobile machinery and renewable energy applications since 1956.





# Gearboxes for single-screw extruders

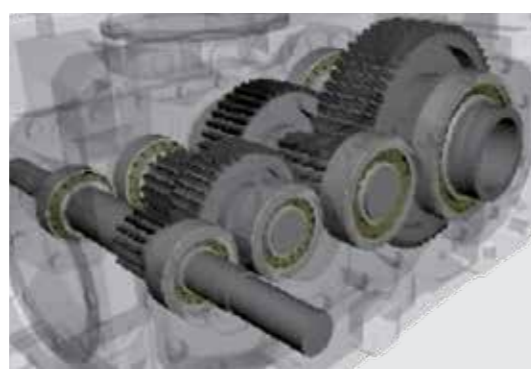
The HDPE series is the configuration specifically developed for single-screw extruder drive generated from the renown heavy duty series HDP, with which it shares most of the component parts and gearing.

Mounted forward to the sturdy nodular cast iron case, and housed into a robust extruder support, HDPE units feature a heavy duty spherical roller thrust bearing of series 294...E, exclusively sourced from primary brands. The particular construction guarantees a common lubrication for the gearbox rotating parts as well as the extruder support.

Due to extreme modularity, each of the HDPE frame sizes allows the selection of the most suitable bearing to win the axial forces generated by the extruder screw, resulting into both a technically optimized and a price effective drive unit. Customized mounting dimensions for the extruder support will allow matching most of the Customers' machine interfaces.

Ratings and main assembly dimensions are listed in the HDP sales catalogue, which we invite to refer to as far as the engineering selection of the product and for any other detail that is not listed in this leaflet. Kindly note that, when sizing a gearbox for extruder duty, the application of a minimum service factor  $f_s = 1.5$  is recommended.

The long time experience of the Bonfiglioli Technical Service is available to support Customers in specifying every aspect of the product properly and safely with the aim of selecting the most effective drive for their extruder application.



## Product designation

HDPE 70 3 25.5 LR GR 132 B6

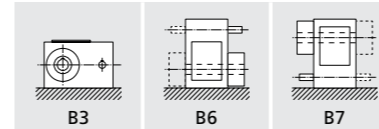
Forced lubrication (E)

Auxiliary cooling (D)

Bearing arrangement (C)

Mounting interface (B)

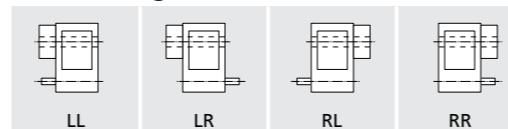
Mounting position



Motor frame size  
112 ... 315

Input configuration  
VP, GL, GR

Shaft arrangement



Output shaft, main types (A)  
(ø) K1 (Single key way)  
(ø) K2 (Double key way at 180°)  
(ø) FZ (Splined according to DIN 5480 or UNI 221)

Thrust bearing frame size (E.g.: 20E)

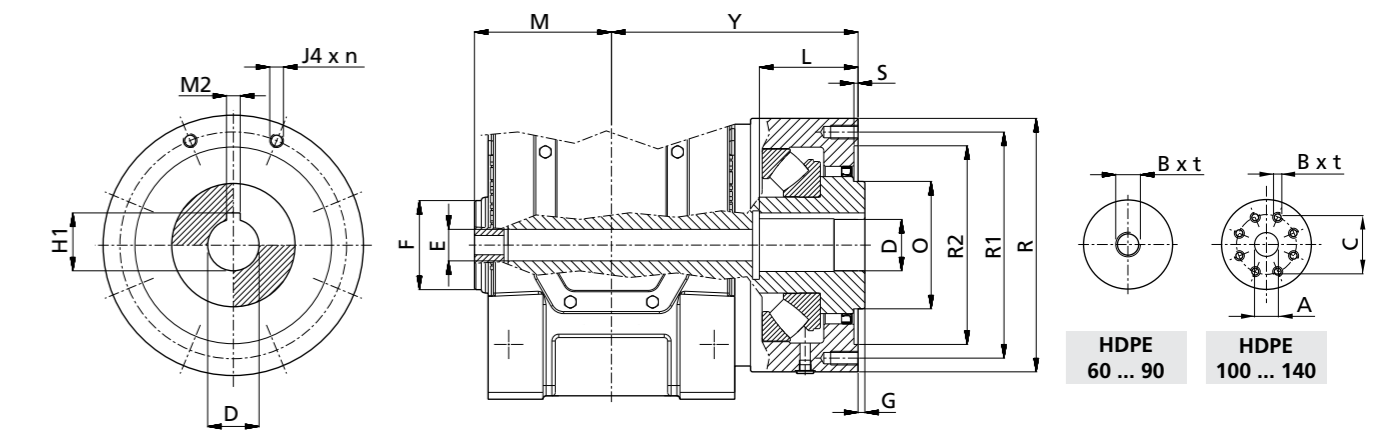
Gear ratio  
7.1 ... 125

Reductions  
2, 3

Frame size  
60, 70, 80, 90, 100, 110, 120, 130, 140

Series  
HDPE

## Main interface dimensions



	MN <sub>max</sub> [Nm]	Bearing	F	B	t	A	C	D <sub>H7</sub>	L	G	E	H1	M2	R	R1	R2	J4	n	O	Y	M	S						
HDPE 60	5000	29417E	84	M24	30	-	-	50	95	10	26	53,8	14	290	220	190	M16	8	120	255	150	6						
		29418E				64,4	16	250	220	M16		8	140		265	6												
		29420E				64,4	18	250	220	M16		8	140		265	6												
HDPE 70	6850	29417E	94	M30	40	-	-	55	110	32	59,3	16	290							255	150							
		29418E				64,4	18	250	220		M16	8		140	265	6												
		29420E				64,4	18	250	220		M16	8		140	265	6												
HDPE 80	12600	29420E	115	M36	43	-	-	65	150	38	69,4	18	350								315	180						
		29422E				74,9	20																					
		29424E				79,9	20	290	250		M20	8		170														
		29426E				85,4	22																					
		29428E				90,4	22	370	320		280	M20		12	190	325												
HDPE 90	17650	29422E	130	M42	43	-	-	75	170	44	79,9	20	370								345	200						
		29424E				85,4	22																					
		29426E				85,4	22	315	280		M20	12		180														
		29428E				90,4	22																					
		29430E				95,4	25	400	350		315	M24		12	200	355												
HDPE 100	25650	29426E	160	M12 (8)	25	85	195	92	90	235	10	55	95,4	25	450	350	315	M24	12	200	390	230	8					
		29428E				85	195		100	180	10	106,4	28	400		345	M24	12	230	405	10							
		29430E				90	210																			385		
		29432E				95	225																			390		
HDPE 110	28900	29430E	170	M12 (8)	25	90	210	95	95	265		55	100,4	25	450							385	230					
		29432E				100	210		10	106,4	28	400	345	M24		12	230	405	10									
		29434E				100	210		10	106,4	28	400	345	M24		12	230	405	10									
HDPE 120	37500	29434E	180	M12 (8)	25	100	195	112	110	240	10	60	106,4	28	450	460	410	M24	12	260	435	245	10					
		29436E				116,4	28																					
		29438E				127,4	32		560																			
		29440E				135	175		10	143,4	36	510	460	M30		12	280	455	10									
HDPE 130	63250	29438E	220	M16 (8)	32	120	245	115	120	245	10	80	127,4	32	560	510	460	M30	12	280	490	290	10					
		29440E				127,4	32																					
		29448E				158,4	36		600																			
		29452E				169,4	40		660																			
		29456E				179,4	40		750	570	515	M33	12	280		550												
HDPE 140	79150	29440E	235	M16 (8)	32	120	300	125	120	305		80	127,4	32	600						490	290	10					
		29448E				158,4	36		660																			
		29452E				169,4	40		750	570	515	M33	12	320		515												
		29456E				179,4	40		750	660	590	M36	12	350		550												

For other possible combinations please refer to Bonfiglioli Technical Service

Please contact Bonfiglioli Technical Service for:  
**(A)** Hollow shafts of various shapes and dimensions upon request. Standard shaft is keyed hollow to UNI 6604.  
**(B)** Mounting dimensions to customer specifications can be provided for the connection of the output flange to the extruder.  
**(C)** Thrust bearing of various dimension and capacity can be selected, based on external forces generated in the extrusion process. Code numbers are listed in the table alongside.  
**(D)** Numerous options available for the auxiliary cooling of the drive and the extruder support.  
**(E)** Numerous options available for the forced lubrication of bearings