

MZF

Technical Data

- Low noise
- Compact size and optimized weight
- Precision gearing
- Optimized inertia moment
- Stable temperature rise
- Higher performance & torsional stiffness
- High efficiency transmission
- Optimized design with special lubricant for long service life
- Flexible mounting dimension

Model / Size		Stages	60	90	120	140
Full load efficiency	%	1	≥95			
		2	≥92			
Standard Backlash	arcmin	1	≤5	≤5	≤5	≤5
		2	≤8	≤8	≤8	≤8
Precision Backlash	arcmin	1	≤3	≤3	≤3	≤3
		2	≤5	≤5	≤5	≤5
Noise ②	dB(A)		≤60	≤60	≤65	≤67
Lifetime ①	hr		20000			
Max radial load	N		125	235	430	1300
Max axial load	N		2110	2310	4800	6200
Nominal Input Speed	rpm		5000	4000	4000	3000
Max input speed	rpm		10000	8000	8000	6000
Torsional stiffness	Nm/arcmin		13	31	82	151
Weight	kg	1	1.35	4.25	9.15	14.6
		2	1.7	7	13	19.2
Operating temp.	°C		-25 ~ 90			
Degree of protection			IP 65			
Lubrication			Synthetic lubrication			
Mounting direction			Any			

① Life reduced by half under continuous operation.

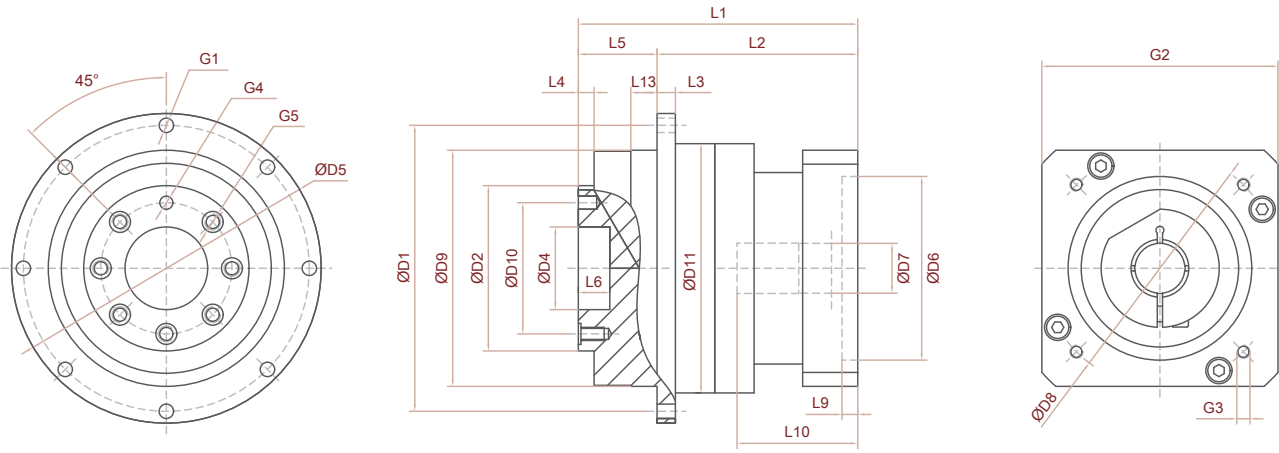
② Noise level measured on input running at 3000 rpm with no load (i = 5)

Model / Size		Stages	Ratio	60	90	120	140
Nominal output torque	Nm	1	4	48	130	270	560
			5	60	160	330	650
			7	50	140	300	550
			10	40	100	230	450
		2	20	48	130	270	560
			25	60	160	330	650
			35	50	140	300	550
			40	48	130	270	560
			50	60	160	330	650
			70	50	140	300	550
			100	40	100	230	450
			MAX output torque		2.5 times of Nominal Output Torque		

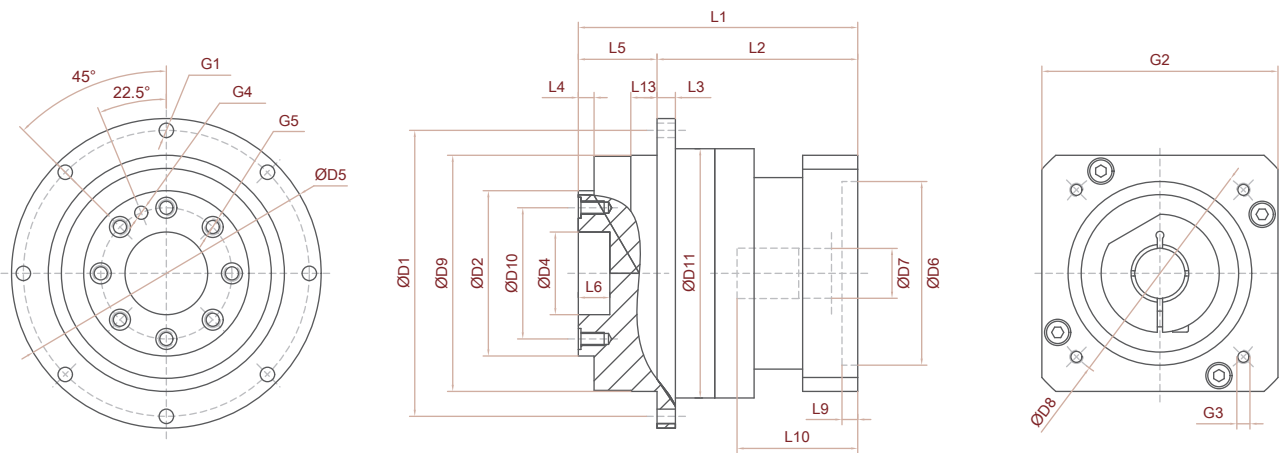
Model / Size		Stages	Ratio	60	90	120	140
Mass Moments of Inertia	Kg-cm ²	1	4	0.14	0.48	2.74	7.54
			5	0.13	0.47	2.71	7.42
			7	0.13	0.45	2.62	7.14
			10	0.13	0.44	2.57	7.03
		2	20	0.13	0.47	2.71	7.42
			25	0.13	0.47	2.71	7.42
			35	0.13	0.47	2.62	7.14
			40,50	0.13	0.44	2.57	7.03
			70,100	0.13	0.13	0.44	2.57

MZF Profile Dimensions

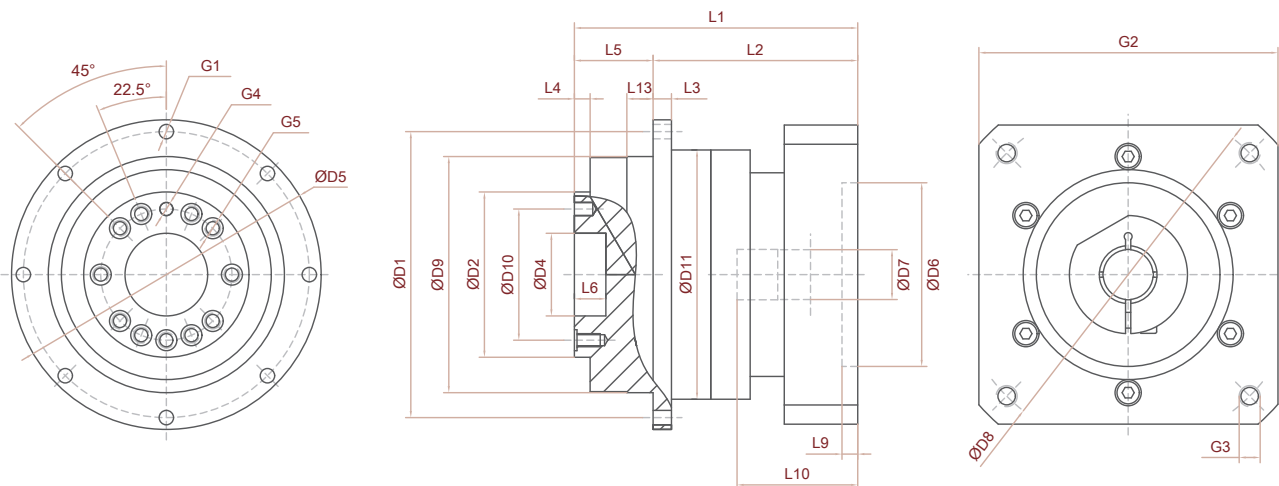
MZF60



MZF90



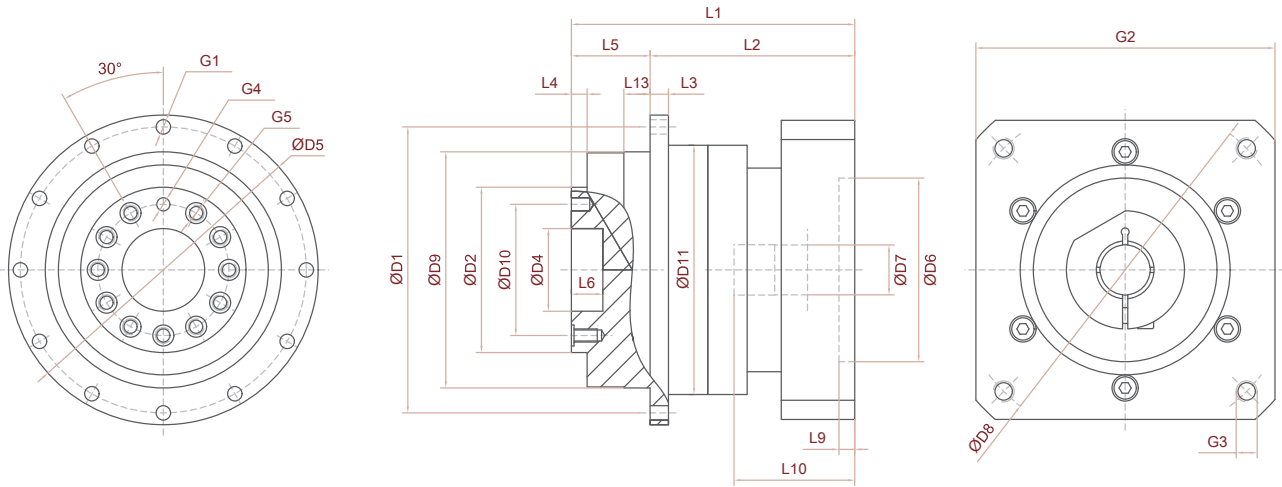
MZF120



MZF

Profile Dimensions

MZF140



Model / Size	Stages		MZF60	MZF90	MZF120	MZF140
Overall length	1	L1	82.5	109.5	131	179
	2		110.5	146	161	245.5
Body length	1	L2	63	79.5	102	141
	2		91	116	132	207.5
Input flange		Q2	□60	□90	□130	□180
Output						
Length from flange		L3	4	8	7	10
Pilot length		L4	3	6	6	7.5
Output shaft length		L5	19.5	30	29	38
shaft shoulder to the shaft end		L6	8	12	12	12
Spigot depth		L13	6.8	10	10	14.5
Hole circle diameter		D1	Ø79	Ø109	Ø135	Ø168
Mounting hole circle		D2	Ø40 h6	Ø63 h6	Ø80 h6	Ø100 h6
Centering		D4	Ø20 H7	Ø31.5 H7	Ø40 H7	Ø50 H7
Output shaft diameter		D5	Ø86	Ø118	Ø145	Ø179
Centering		D9	Ø64 g6	Ø90 g6	Ø110 g6	Ø140 g6
Hole circle diameter		D10	Ø31.5	Ø50	Ø63	Ø80
Housing diameter		D11	Ø65	Ø95	Ø115	Ø152.5
Pinion bore		G1	8-Ø4.5	8-Ø5.5	8-Ø5.5	12-Ø6.6
Mounting thread x depth		G4	Ø5x6 DP.	Ø6x7 DP.	Ø6x7 DP.	Ø8x7 DP.
		G5	7-M5	8-M6	11-M6	11-M8
Input						
Pilot depth		L9	5.5	6	8	10
Motor shaft length		L10	31	45.5	67	83
Pilot diameter		D6	Ø50 G6	Ø70 G6	Ø110 G6	Ø114.3 G6
Input shaft diameter		D7	Ø14 G6	Ø19 G6	Ø22 G6	Ø35 G6
Mounting hole circle		D8	Ø70	Ø90	Ø145	Ø200
Mounting thread x depth		G3	4-M4	4-M5	4-M8	4-M12