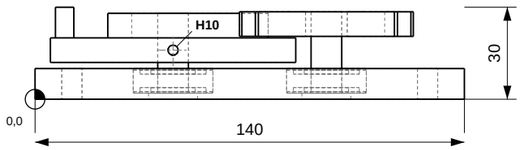
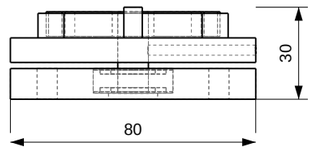
FRONT VIEW



LEFT SIDE VIEW



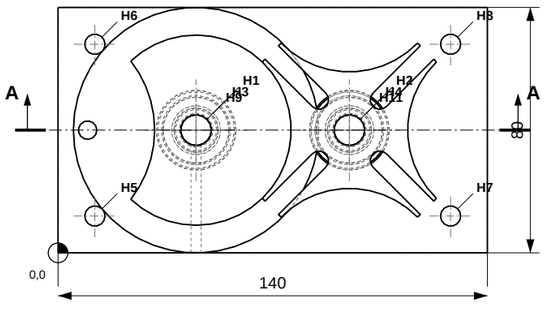
DRIVING DIMENSIONS

Parameter	Value	Unit
Centre distance	50	mm
Driver diameter	80	mm
Driver thickness	8	mm
Bore	10	mm
Pin diameter	6	mm
Pin length	10	mm
Locking arc radius	31	mm
Locking hub height	8	mm
Cutout clear	0.5	mm
Geneva diameter	72	mm
Geneva thickness	8	mm
Slot width	6.2	mm
Slot depth	22	mm
Plate length	140	mm
Plate width	80	mm
Plate thickness	10	mm
Bearing seat Ø	26	mm
Seat depth	8	mm

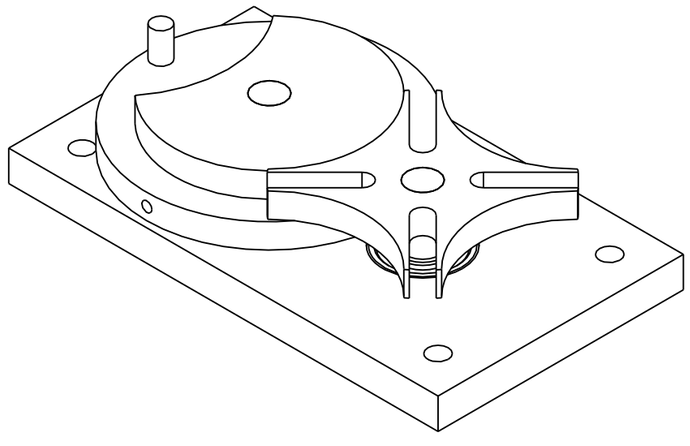
PARTS LIST

Pos	Part	Qty	Standard / mass
1	base_plate	1	795.5 g
2	driver_wheel	1	459.0 g
3	drive_pin	1	2.2 g
4	geneva_wheel	1	82.7 g
5	driver_shaft	1	16.0 g
6	geneva_shaft	1	16.3 g
7	Deep groove ball bearing 6000	2	bearing

TOP VIEW



ISOMETRIC



NOTES

1. Each shaft has only one 6000 bearing, so the discs are overhung. Expect tilt and wear; a second bearing or a cover-plate bearing is recommended for real duty.
2. No axial retention is modelled (no circlips or collars). Add spacers or circlips to hold the 2 mm and 0.5 mm gaps.
3. Exact R31/R31 locking arcs give zero backlash. Machine the hub to -0.05 or the concave arcs to +0.05 to avoid binding.
4. The M4 set screw in an 8 mm disc leaves about 2.3 mm wall either side of the tapped hole. Prefer a keyed hub for torques above about 3 N·m.
5. The R31 locking hub sits on top of the Ø80 × 8 driver disc as an extra 8 mm layer in the Geneva wheel plane, because the Ø80 disc and the Ø72 wheel overlap in plan view at 50 mm centres. Total driver height is 16 mm.
6. The hub clearance cutout is a circle of R = Geneva radius + 0.5 mm, centred 50 mm from the driver axis in the pin direction. It therefore lies opposite the Geneva wheel in the locked position. This is the kinematically correct position.
7. The slot depth of 22 mm is measured to the centre of the full-round slot end (radius 14 from the wheel axis), so the pin clears the slot bottom at its innermost position (pin centre at radius 14.64).
8. Concave locking arcs R31 are centred 50 mm from the Geneva axis on the bisectors between slots. Running clearance comes from the ±0.2 tolerance and lapping.
9. Ø10 shafts are added, one 6000 bearing per shaft, mounted flush in the 8-deep seats. A Ø16 shaft relief bore through the plate leaves a 5 mm shoulder for the outer ring.

TITLE

4-Slot Geneva Drive Assembly

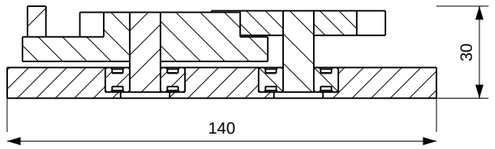
LUXXO

DRAWN BY Luxxo AI design engineer	DATE 2026-11-14	PROJECTION ISO first angle [|O] -O
MATERIAL Steel (S235)	GENERAL TOLERANCE ISO 2768-m ± 0.2 mm	MASS (calc.) 1.42 kg
SCALE 1 : 2	SHEET 1 / 2 A3	DRAWING No. LX-84348B-v1

Dimensions in mm · unspecified tolerances ISO 2768-m · surface Ra 3.2 unless noted · break sharp edges 0.5 × 45° · machining

Hidden lines omitted · not to scale

SECTION A-A



A-A (1 : 2) cutting plane y = 0 mm, viewed from the front

HOLE TABLE (X / Y from datum 0,0 of the view F / S / T on sheet 1)

Tag	Ø	X	Y	Depth	View	Thread / fit / note
H1	Ø26	45	40	THRU	T	Ø26 H13 for M24 (ISO 273 medium)
H2	Ø26	95	40	THRU	T	Ø26 H13 for M24 (ISO 273 medium)
H3	Ø16	45	40	THRU	T	Drilled
H4	Ø16	95	40	THRU	T	Drilled
H5	Ø6.6	12	12	THRU	T	Ø6.6 H13 for M6 (ISO 273 medium)
H6	Ø6.6	12	68	THRU	T	Ø6.6 H13 for M6 (ISO 273 medium)
H7	Ø6.6	128	12	THRU	T	Ø6.6 H13 for M6 (ISO 273 medium)
H8	Ø6.6	128	68	THRU	T	Ø6.6 H13 for M6 (ISO 273 medium)
H9	Ø10	45	40	THRU	T	Ø10 H7 (+0.015 / 0) driver bore
H10	Ø3.3	45	16	THRU	F	M4-6H, tap drill Ø3.3
H11	Ø10	95	40	THRU	T	Ø10 H7 (+0.015 / 0) Geneva bore

FITS & TOLERANCES (ISO 286)

Feature	Size	Max / min	Fit
bearing seat	Ø26 H7	26.021 / 26.0	H7/h6 clearance
bearing seat	Ø10 js6	10.005 / 9.995	H7/js6 transition
bearing seat	Ø10 js6	10.005 / 9.995	H7/js6 transition
driver bore	Ø10 H7	10.015 / 10.0	H7/h6 clearance
Geneva bore	Ø10 H7	10.015 / 10.0	H7/h6 clearance
drive pin	Ø6 p6	6.02 / 6.012	H7/p6 interference

ENGINEERING CHECKS (simplified hand calculations)

OK driver shaft: 6000: P = 150 N, C = 4.75 kN → L10 = 31754.6 mil. rev = 8,820,730 h at 60 rpm (need 20,000.0 h)
OK Geneva shaft: 6000: P = 150 N, C = 4.75 kN → L10 = 31754.6 mil. rev = 35,282,922 h at 15 rpm (need 20,000.0 h)
OK driver shaft: Ø10: T = 3 N·m, M = 1.7 N·m → σv = 31.5 MPa, safety 7.46 vs. Re 235 MPa (need 2.5), min. Ø6.9
OK geneva shaft: Ø10: T = 3 N·m, M = 1.7 N·m → σv = 31.5 MPa, safety 7.46 vs. Re 235 MPa (need 2.5), min. Ø6.9
Flat patterns: 1 DXF files (1 pcs) for laser cutting - download in the app.

Section hatching per ISO 128-50 · hole coordinates from the datum symbol · fits ISO 286-2 · weld symbols ISO 2553 · weld preparation EN ISO 9692-1

TITLE
4-Slot Geneva Drive Assembly

LUXXO

DRAWN BY Luxxo AI design engineer	DATE 2026-11-14	PROJECTION ISO first angle [|O] -O
MATERIAL Steel (S235)	GENERAL TOLERANCE ISO 2768-m ± 0.2 mm	MASS (calc.) 1.42 kg
SCALE 1 : 2	SHEET 2 / 2 A3	DRAWING No. LX-84348B-v1