

Centre-pivot design brief

Record the site, water demand and operating window before selecting equipment.

Fill in this PDF or print it. Record unknowns and the source/date of measured values.

Project / site reference

Prepared by / date

01 Area and water demand

Keep net crop demand, application efficiency and gross irrigation depth separate.

Effective irrigated radius (m)

Operating sector (degrees) / excluded area

Crop / peak net requirement (mm/day)

Assumed application efficiency (%) / basis

Available irrigation hours per day

Available source flow (L/s) / test date

End-gun / corner coverage / separate flow

Soil intake evidence / slope / runoff limits

Demand evidence: location, season, rainfall allowance and source/date

02 Machine and sprinkler package

Ask the supplier to identify the exact equipment and the operating case.

Manufacturer / model / span schedule

Terrain limits / obstacles / wheel tracks

Sprinkler model / outlet spacing

Regulator set point / inlet requirement

Full-speed revolution time / drive settings

Nozzle chart / drawing revision / date

Attach: site plan, elevation survey, source-flow evidence and current supplier charts.

Supply main and handover

Use the same flow, reference points and operating case throughout the pressure budget.

03 Supply-main and pump inputs

Keep pipe length separate from pivot radius. Account for losses at the design flow.

Design flow (L/s) / simultaneous demand

Mainline inlet pressure (bar) / location

Pipe material / nominal size / actual bore

Route length (m) / fittings and valves

Source, pivot and critical-point levels (m)

Required pressure at pivot inlet (bar)

Filter / equipment losses and condition

Pump model / speed / curve revision

Pressure-budget evidence and unresolved checks

Include suction/NPSH, pressure class, maximum pressure and transient assessment.

04 Review before a quote or purchase

Record who will close each missing input or check.

Open items / responsible person / evidence needed

Designer / technical reviewer

Calculation / drawing / report revision

Attach the duty points, pressure budget, outlet schedule and supplier selections.

This worksheet collects inputs. It does not calculate, select or approve equipment.

Keep the completed copy with your project. This PDF has no submit button.

Guidance: Tenselo centre-pivot design and pipe-sizing guides; Irrigating Agriculture
"The design of a Centre Pivot or Lateral Move irrigator" (Agriculture Victoria resources).