

BRIGGS IRRIGATION



Briggs Linear Irrigation Booms

lane spacing from 50 to 90 metres





Briggs boom irrigators are an established feature of the farming landscape.

Efficient, tough, reliable and surprisingly versatile, the modern Briggs range has been tried and tested by farmers, growers and groundsmen around the world.

All Briggs booms are manufactured in the UK to the same high standards and can be operated with almost any make and size of hosereel.

Ease of use has been engineered into all Briggs booms from the outset.

The right boom for the job

Briggs booms are based either on a four-wheel chassis or on a three-wheel chassis which allows the whole boom to be transported on the hosereel ('hosereel mounted').

The linear booms in this brochure are four-wheel models giving lane spacings of up to 90 metres (236'). Despite their size, even the largest boom in the range can be extended to its full width by one person in just a few minutes, or packed for transport equally quickly.

The advantages of using boom irrigators are well documented. Compared with rainguns the improvement in uniformity and the fact that the soil seems to absorb the smaller droplets more easily means that less water is used.

Savings may also be due in part to a tendency by operators to over water when irrigating with a raingun to ensure that the minimum depth is applied even in the least uniform areas being irrigated. Under practical working conditions the amount of water applied to any given area can be reduced by 20-30% compared to a raingun.

Uniformity

Closely spaced nozzles + low trajectory
=
90% uniformity
(even in quite windy conditions)
Benefits include savings in water and
more even crop growth.



Soil benefits

Controlling droplet size reduces risk of
soil capping or 'slumping', compared
with a raingun.
(Which also aids absorption of
subsequent irrigation or rain.)

Benefits of irrigating with a Briggs Boom

Reduced droplet size

Nelson pressure regulated sprayjets
allow the optimum droplet size to be
selected for each type of crop
(eg small droplets for leafy salads or
larger droplets for root crops).

Less energy needed

Booms operate at pressures ranging from
just half that recommended for rainguns
(2 - 3.5 bar compared to 4.5 - 5.0 bar).
So less pressure needed all the way back
to the pump, reducing input power costs.





Easy to use

Briggs booms fold and swivel on the chassis for ease of transport. The folded boom is rotated through 90° before being pulled out to the end of the run. Unfolding the boom is a one-person operation and no tools are needed to prepare the boom for operation.

Tough and reliable

Briggs booms have been developed in consultation with farmers to ensure they are tough, reliable and easy to maintain. Components are laser cut for accuracy and all tubing is formed on modern automated machines. The entire unit is fully galvanised, while Nelson sprayjets are selected for their established performance over time.



R64/2 irrigating onions



R64/2 on iceberg lettuce



Crops irrigated with a Briggs boom

Farmers around the world have found a Briggs boom is the best way to irrigate a wide range of crops. These include potatoes, onions, lettuce and other salad crops, as well as soft fruit such as strawberries. In Australia farmers have successfully irrigated pineapples, while maize has been irrigated using a 'high crop' model. Groundsmmen and turf growers also value Briggs booms.



R64/2 on potatoes

R64/2 on Chinese leaf



R50/2 on polo field



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Options for every farm

1. **Raingun kit** - gives facility to irrigate awkward shape areas, runs with obstacles or planted headlands.
2. **Blanking Plate** - gives facility to operate the boom at reduced structural width.
3. **Layflat connector** - various types supplied to fit all makes of hose reel.
4. **Hydraulic boom lift** - high lift and low lift versions available with choice of hydraulic kits.
5. **Centre hose feed**
6. **Offset waterfeed** - reduces damage to crop and reduces drag on PE hose.
7. **Nelson S3000 sprayjets OR R3000 rotators.**

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Chart Showing Boom Travel Speeds For Example Flow Rates (metres/hour)

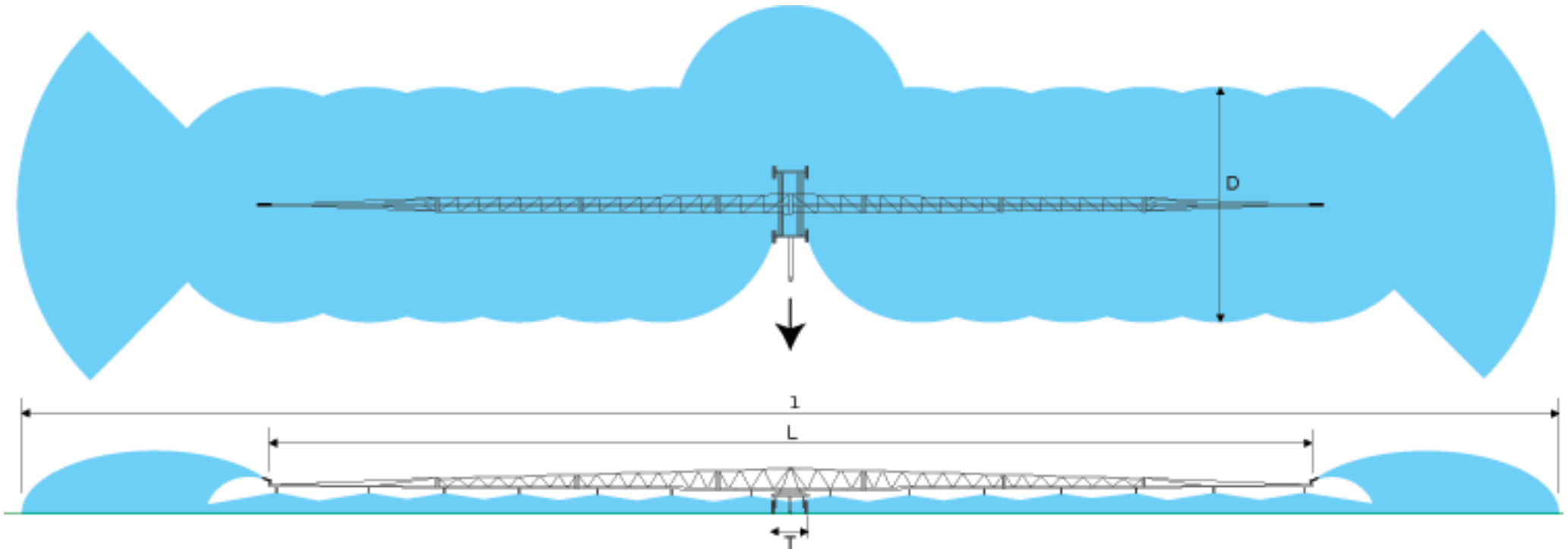
Boom size / lane spacing in metres (feet)	Pressure on boom in bar (psi)	Flow rate in m ³ /hr (imp gpm)	Application rate (mm)					
			7.5	10	15	20	25	30
R50/2-54m (177') 50m wide structure with end sprayjets	2 (30)	30 (110)	74	56	37	28	22	19
		36 (132)	88	66	44	33	26	22
		44 (161)	108	81	54	40	32	27
R50/2-72m (236') 50m wide structure with end impact sprinklers	4 (60)	41 (150)	76	57	38	28	23	19
		52 (190)	96	72	48	36	29	24
		65 (238)	121	91	61	45	36	30
R64/2-72m (236') 64m wide structure with end sprayjets	2 (30)	52 (190)	96	72	48	36	29	24
		65 (238)	121	91	61	45	36	30
		80 (293)	146	111	73	55	44	37
R64/2-90m (295') 64m wide structure with end impact sprinklers	4 (60)	52 (190)	77	58	38	29	23	19
		65 (238)	97	73	48	36	29	24
		80 (293)	117	88	59	44	35	29

These flow rates are examples only – there are a wide range of flow rates for each model.

Briggs Boom Technical Data (for all 4 wheel chassis models)

	R50/2	R50/2 HIGH CROP	R64/2	R64/2 HIGH CROP
Boom length (L)	50m (154')	50m (154')	64m (210')	64m (210')
Lane spacing (l)	50 – 75m (154 - 246')	50 – 75m (154 - 246')	64 – 90m (210 - 295')	64 – 90m (210 - 295')
Band width (D)	10 – 25m (33 – 82')	10 – 25m (33 – 82')	10 – 25m (33 – 82')	10 – 25m (33 – 82')
Flow - m ³ /hr (imp gpm)	22 – 82 (80 – 300)	22 – 82 (80 – 300)	22 – 82 (80 – 300)	22 – 82 (80 – 300)
Operating pressure	1 – 4 bar (15 – 60 psi)	1 – 4 bar (15 – 60 psi)	1 – 4 bar (15 – 60 psi)	1 – 4 bar (15 – 60 psi)
Quantity of outlets	18	18	22	22
Folded length – m (ft)	7.4m (24'7")	7.4m (24'7")	7.4m (24'7")	7.4m (24'7")
Folded width – m (ft)	3.5m (11'6")	3.5m (11'6")	3.65m (12')	3.65m (12')
Wheelbase – m (ft)	3.8m (12'6")	3.8m (12'6")	3.8m (12'6")	3.8m (12'6")
Track width (T) – m (inch)	1.5 – 2.2m (60" – 86")	1.5 – 2.2m (60" – 86")	1.5 – 2.2m (60" – 86")	1.5 – 2.2m (60" – 86")
Height to nozzle –m (in)	1.5m (60")	1.5 – 3.1m (60"–122")	1.5m (60")	1.5 – 3.1m (60"– 122")
Height to top of structure – m (ft)	2.93m (9'6")	4.6m (15')	2.93m (9'6")	4.6m (15')
*Weight – kg (lb)	*1700 kg (3740lb)	*1970 kg (4330lb)	*1730kg (3806lb)	*2000kg (4400lb)
Turning Circle – m (ft)	7.2m (23'6")	7.2m (23'6")	7.2m (23'6")	7.2m (23'6")

Figures are for reference purposes only and are not binding. We reserve the right to alter specifications without prior notice. *Weights shown are for boom with offset waterfeed on both ends of the chassis.



- Unique offset hose feed - boom straddles just one bed, while allowing use of central drawbar (The hose reel pipe is in the wheeling, alleviating traction problems when pulling out).
- Semi-automatic locking catches make unfolding simple.
- Irrigator can be operated and towed from either end, saving time and greatly simplifying positioning procedures.
- Four-wheel steer gives excellent manoeuvrability and prevents crop damage.
- Choice of pressure regulated spray jets, rotators or sprinklers to give optimum droplet size for the type, or stage of crop under production.
- Briggs booms can be used with almost any make of hose reel.

- Quadrant lock allows boom to be set for angled headlands or to be rotated round obstacles in the field.
- Quick and simple connection to the hose reel with a flexible coupling.
- Self-levelling allows the boom to remain level with the ground and it can also be locked to deal with side slopes.
- Ball valve control on all sprinkler/spray-jet outlets enables sections to be shut off to suit irrigation requirements and allows individual nozzles to be unblocked if necessary.
- Optional combination of sprinklers and spray jets or drop pipes and spray jets to suit wide headlands and irregular shaped fields.
- Optional stainless steel pipework for corrosive liquids.
- Low operating pressures.
- Extensive range of options.

Ease of operation is the hallmark of a Briggs boom. One person can open or fold the boom in just a few minutes.



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