BRIGGS IRRIGATION

Briggs irrigation booms

lane spacing from 18 to 96 metres (59’ to 315’)

Briggs booms are an established feature of the farming landscape.

Efficient, tough, reliable and 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 since 1992 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 an independent four wheel chassis or on a smaller three wheel chassis which allows the whole boom to be transported on the hosereel.

Boom structures are available from 18m (59') to 76m (249') and can irrigate up to 96m (315') in one setting. 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.

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Uniformity

Closely spaced nozzles + low trajectory = 90% uniformity (even in quite windy conditions)

Benefits include more even germination and more consistent higher value harvest.

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.)

Comparison Of Boom Against Raingun To Demonstrate Reduced Power Requirement

Hosereel size 110/470 (3.5" x 1540')	Raingun–26mm (1.02") nozzle	BOOM
Lane spacing	72m (236')	72m (236')
Flow rate	54m³/hr (238 US gpm)	54m³/hr (238 US gpm)
Pressure at the boom or raingun	4.5 bar (65psi)	2 bar (29psi)
Pressure at Hosereel inlet	7.9 bar (115psi)	5.4 bar (78psi)
Absorbed power per hour	17.5 kWh (23.5 hp h)	12.3 kWh (16.5 hp h)
Absorbed power in 1000 hours	17500 kWh (23500 hp h)	12300 kWh (16500 hp h)

Optimum droplet size

A wide range of pressure regulators and nozzle types 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).

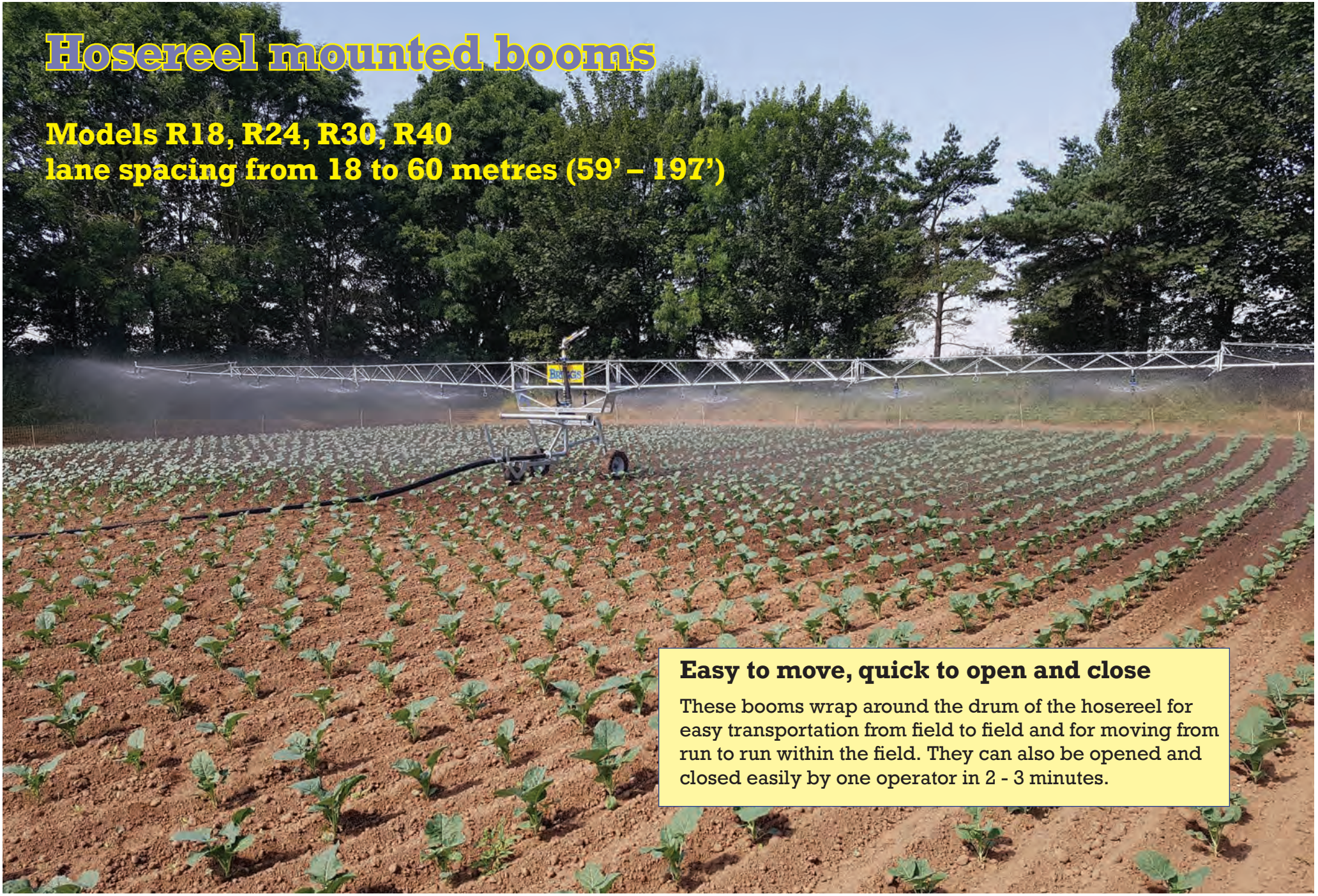
Benefits of irrigating with a Briggs boom

Lower energy requirement

Booms operate at pressures ranging from less than half that recommended for rainguns (1 - 3.5 bar [15 - 50psi] compared to 4.5 - 5.0 bar [65 to 73psi]). Lower pressure = reduced energy costs.

Hosereel mounted booms

Models R18, R24, R30, R40
lane spacing from 18 to 60 metres (59’ – 197’)



Easy to move, quick to open and close

These booms wrap around the drum of the hosereel for easy transportation from field to field and for moving from run to run within the field. They can also be opened and closed easily by one operator in 2 - 3 minutes.

Mounted booms fold securely on the hosereel, simplifying transport and setting up.

Preparing the hosereel and boom for pulling out.

Standard features include:

- Full 360° rotation of turntable
- Centre waterfeed
- Wheel track adjustable from 1.5 to 4.2m
- Pneumatic tyres front and rear
- Large range of options including heavy duty chassis, raingun kit, turf wheels etc

Pulling out R40 with a pulling out bar on the tractor 3 point linkage.

R40-48 in operation.

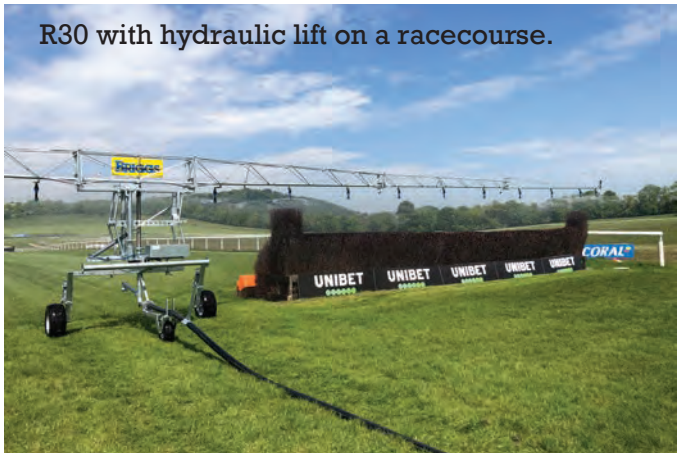
R18 irrigating newly planted organic crops.

R30 on leafy salads in Kenya.

R30 irrigating onions.

R30 irrigating sports turf.

Turf specification R30.



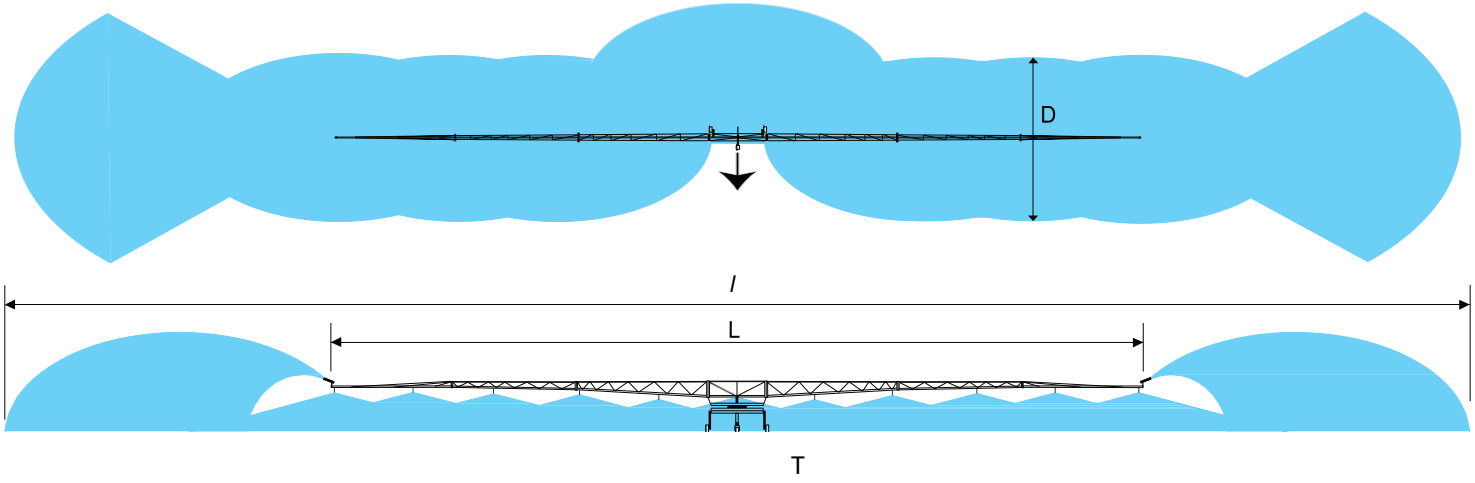
R30 with hydraulic lift on a racecourse.

R18 mounted on Ocmis hosereel.

R40 mounted on Bauer hosereel.

R30 with hydraulic lift.

BRIGGS BOOM TECHNICAL DATA FOR R18, R24, R30 & R40 HOSEREEL MOUNTED BOOMS				
	Boom Model			
	R18	R24	R30	R40
Boom length (L)	18m (59')	24m (79')	29m (95')	40m (131')
Lane spacing (l) with no end nozzle	22m (72')	28m (92')	34m (111')	44m (144')
Lane spacing (l) with end nozzle PCS or PCR3030	26m (85')	30m (98')	38m (125')	48m (157')
Lane spacing (l) with end nozzle R55VT	38m (125')	44m (144')	50m (164')	60m (197')
Lane spacing (l) with end nozzle K1 or Luxor	44m (144')	50m (164')	54m (177')	n/a
Band width (D) (Nelson S3030/R3030)	12m/15m (39'/49')			
Flow - m^3/hr (imp gpm)	14 – 30 (51 – 110)	14 – 44 (51 – 160)	14 – 50 (51 – 184)	20 – 50 (51 – 184)
Operating pressure with PCS or PCR3030 or Nelson R55VT	1 – 2.5 bar (15 – 37 psi)	1 – 2.5 bar (15 – 37 psi)	1 – 2.5 bar (15 – 37 psi)	1 – 2.5 bar (15 – 37 psi)
Operating pressure with Jumbo, K1 or Luxor	3 - 4 bar (45 – 60 psi)	3 - 4 bar (45 – 60 psi)	3 - 4 bar (45 – 60 psi)	3 - 4 bar (45 – 60 psi)
Quantity of outlets	9	11	13	17
Folded length - m (ft)	5m (16'5")	5m (16'5")	5m (16'5")	5.5m (18')
Folded width with 1.5m centre section - m (ft)	2.4m (7'11")	3.0m (9'10")	3.0m (9'10")	n/a
Folded width with 1.9m centre section - m (ft)	2.8m (9'3")	3.4m (11'2")	3.4m (11'2")	3.1m (10'2")
Folded width with 2.2m centre section - m (ft)	3.1m (10'2")	3.7m (12'2")	3.7m (12'2")	3.4m (11'2")
Track width (T) – m (inch) standard chassis / offset	1.5 – 4.2m (60" – 84") / 1.5 – 2.4m (60" – 96")			
Height to nozzle –m (ft)	1.5m (4'11") - **2.28m (7'5"') for high crop version in high position			1.5m (4'11")
Height to top of structure – m (ft)	2.12m (7') -**2.9m (9'6") for high crop version in high position			2.37m (7'8")
Weight - standard (heavy duty) ((heavy duty offset)) chassis	370 kg (510kg) ((550kg)) 814lb (1122lb) ((1210lb))	420 kg (560kg) ((600kg)) 924lb (1232lb) ((1320lb))	430 kg (570kg) ((610kg)) 946lb (1254lb) ((1342lb))	660kg (736kg) ((810kg)) 1452lb (1619lb) ((1782lb))
Figures are for reference purposes only and are not binding. We reserve the right to alter specifications without prior notice. **** High crop version available for R18, R24, R30 booms only with standard centre pull chassis.**				



Hosereel mounted booms

Models R46/35, R46/40, R46/46
lane spacing from 40 to 66 metres (125’ – 217’)

Easy to move, quick to open and close

The R46 range of booms wrap around the drum of the hosereel for easy transportation from field to field.

The booms do not need to be folded when moving from run to run. They can be hydraulically lifted on the back of the hosereel and moved in the open position.

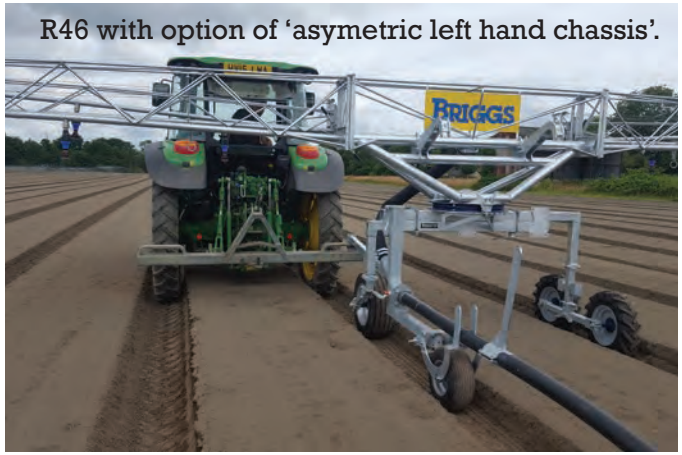
R46/46 in full transport position.

R46/46 moving to the next run position with the boom open.

Pulling out R46/46 with the boom open.

R46 in operation.

R46/46 boom with the option of raingun mounting kit and raingun.



R46 with option of 'asymetric left hand chassis'.

Standard centre waterfeed chassis with rear wheels set at 3.6m (142") track width.

R46/46 irrigating 54m wide on celery.

R46 irrigating potatoes.

Standard features include:

- 30 degree rotation of turntable
- Centre waterfeed
- Wheel track adjustable from 1.5 to 4.2m
- Pneumatic tyres front and rear
- Large range of options including full rotation of turntable, offset waterfeed, levelling jack and blanking plates

BRIGGS BOOM TECHNICAL DATA FOR R46 HOSEREEL MOUNTED BOOMS

	Boom Model		
	R46/35	**R46/40**	**R46/46**
Boom Structural length (L)	35m (115’)	40m (131’)	46m (151’)
Lane spacing (l) with no end nozzle	38m (125’)	44m (144’)	50m (164’)
Lane spacing (l) with end nozzle Nelson PCS or PCR3030	44m (144’)	48m (157’)	54m (177’)
Lane spacing (l) with end nozzle Nelson R55VT	55m (180’)	60m (196’)	66m (216’)
Lane spacing (l) with end nozzle K1 or Luxor	60m (196’)	65m (213’)	N/A
Band width (D) (Nelson S3030/R3030)	12m/15m (39’/49')	12m/15m (39’/49')	12m/15m (39’/49')
Flow range - m^3/hr (imp gpm)	25 - 60 (90 – 220)	25 - 60 (90 – 220)	25 - 60 (90 – 220)
Operating pressure with end PCS or PCR3030 or R55VT	1 – 2.5 bar (15 – 37 psi)	1 – 2.5 bar (15 – 37 psi)	1 – 2.5 bar (15 – 37 psi)
Operating pressure with end sprinkler K1 or Luxor	3 – 4 bar (45 – 60 psi)	3 – 4 bar (45 – 60 psi)	3 – 4 bar (45 – 60 psi)
Quantity of outlets	14	16	18
Folded length - m (ft)	6m (20’)	6m (20’)	6m (20’)
Folded width working position with 2.2m / 2.5m centre section– m (ft)	3.8m / 4.1m (12'6" / 13’5”)	4.05m / 4.35m (13’2" / 14’4”)	4.15m/4.45m (13’7" / 14’8”)
Transport width with 2.2 / 2.5m centre - m (ft) 3rd & 4th section removed	3.5m / 3.8m (11’ 6” / 12’6”)	3.5m / 3.8m (11’6” / 12’6”)	3.5m / 3.8m (11’6” / 12’6”)
*** Transport width with 2.2 / 2.5m centre - m (ft) 2nd, 3rd, 4th sections removed**	2.9m / 3.2m (9’6” / 10’6”)	2.9m / 3.2m (9’6” / 10’6”)	2.9m / 3.2m (9’6” / 10’6”)
Track width STANDARD CHASSIS – m (inch)	1.5 – 4.2m (60” – 165”)	1.5 – 4.2m (60” – 165”)	1.5 – 4.2m (60” – 165”)
Track width OFFSET (ASYMETRIC) CHASSIS – m (inch)	1.5 – 2.2m (60” – 86”)	1.5 – 2.2m (60” – 86”)	1.5 – 2.2m (60” – 86”)
Height to nozzle in centre of boom –m (inch)	1.5m (60”)	1.5m (60”)	1.5m (60”)
Weight with centre pull / offset chassis – kg (imp lb)	605 / 635kg (1331 / 1397lb)	650 / 727kg (1430 / 1600lb)	666 / 743kg (1465 / 1635lb)

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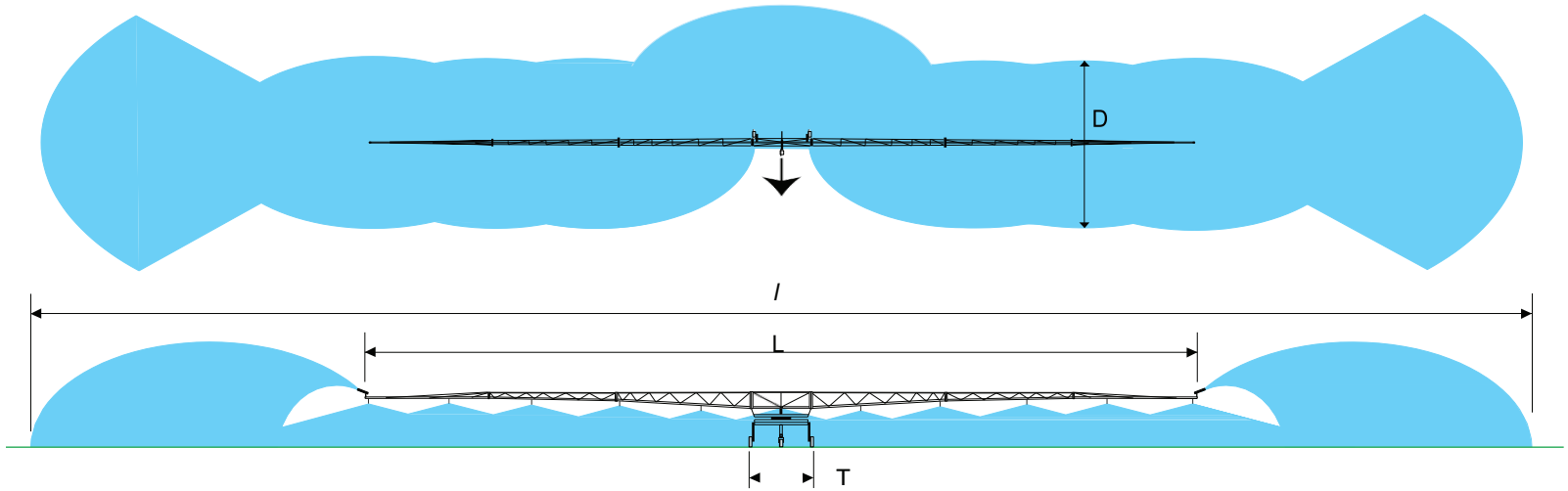
*** Optional transport kit is required to attain these dimensions**



Four wheel chassis booms

Models R50/2, R57/2, R60/2, R64/2, R76
lane spacing from 50 to 96 metres (164’ – 315’)

Tough, reliable and easy to move

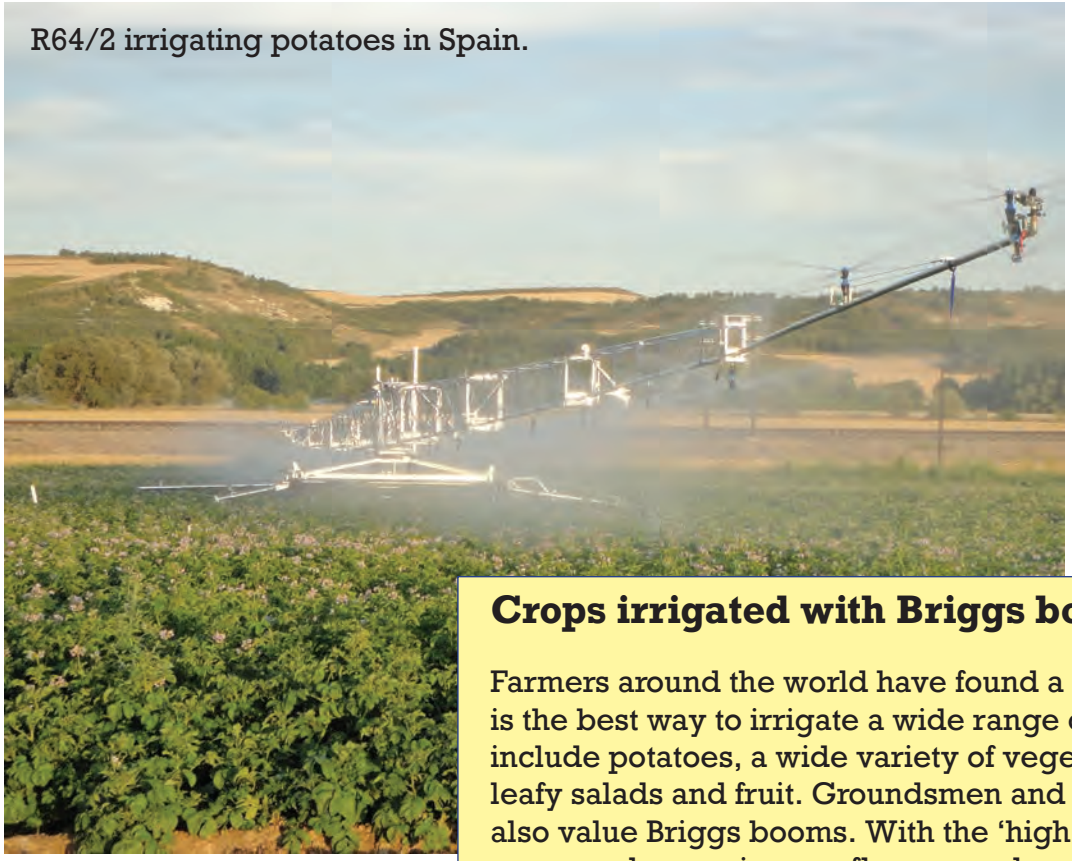
A stand alone range of booms which can be used with almost any make of hosereel - old or new.

Standard features on all models

- Unique offset hose feed - boom straddles just one bed, while allowing use of central drawbar (The hosereel pipe is in the wheeling, alleviating traction problems when pulling out).
- Semi-automatic locking catches make unfolding simple.
- The boom can be operated and towed from either end, saving time, reducing crop damage and 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 hosereel, old or new.

- 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 hosereel 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.



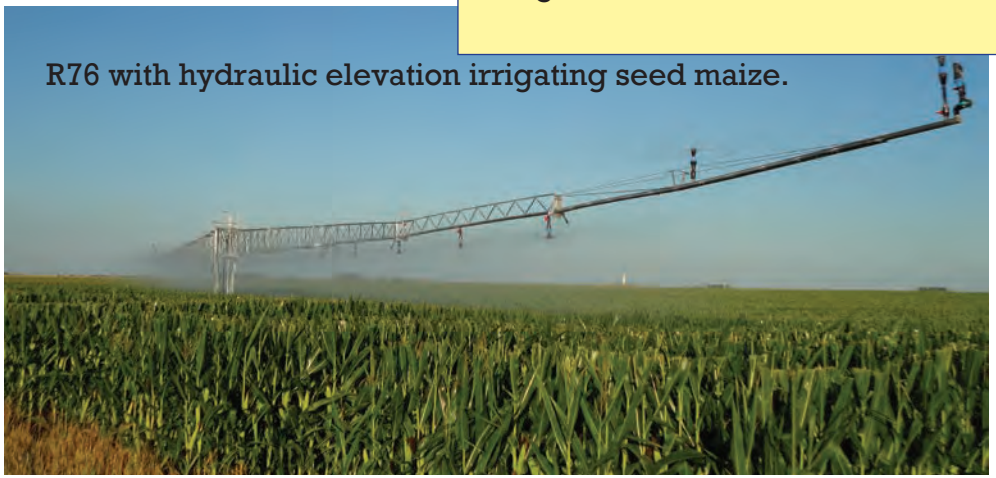
R64/2 irrigating potatoes in Spain.

R64/2 on iceberg lettuce.

R64/2 on potatoes.

Crops irrigated with Briggs booms

Farmers around the world have found a Briggs boom is the best way to irrigate a wide range of crops. These include potatoes, a wide variety of vegetables, cereals, leafy salads and fruit. Groundsmen and turf growers also value Briggs booms. With the 'high crop' model crops such as maize, sunflowers and sugar cane can be irrigated.



R76 with hydraulic elevation irrigating seed maize.

R50/2 on polo field.

R50/2 with slurry nozzles.

R50/2 with Senninger Quadspray LEPA system

R64/2 irrigating onions.

R50 irrigating carrots.

Irrigating transplanted sugar cane.

R76 irrigating French beans.

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Options for every farm

1. **Raingun kit** - manual or semi-automatic - 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 with the last section folded in.
3. **Layflat connector** - various types supplied to fit all makes of hosereel.
4. **Hydraulic boom lift** - high lift and low lift versions available with choice of hydraulic kits.
5. **Centre hose feed** (standard)
6. **Offset waterfeed** - reduces damage to crop and reduces drag on PE hose.
7. **Nelson S3030 sprayjets** OR R3030 rotators.

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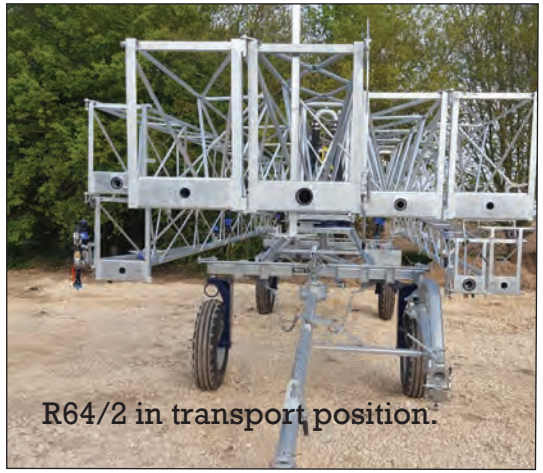

R64/2 in transport position.

Pulling out.

Folding a boom section.

Easy to use

Briggs four wheel chassis 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 - designed to last as long as the hosereel

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 to provide excellent corrosion resistance over a long period of time.

R64/2 from above.

BRIGGS BOOM TECHNICAL DATA (FOR ALL 4 WHEEL CHASSIS MODELS)

	Boom Model				
	R50/2	**R57/2**	**R60/2**	**R64/2**	**R76 HIGH CROP-2.1m**
Boom structural length (L)	50m (154’)	57m (187’)	60m (197’)	64m (210’)	76m (250’)
Lane spacing (l) with no end nozzle	54m (177’)	60m (197’)	68m (223’)	68m (223’)	80m (262’)
Lane spacing (l) with end nozzle Nelson PCS or PCR3030	58m (190’)	64m (210’)	68m (223’)	72m (236’)	84m (275’)
Lane spacing (l) with end nozzle Nelson R55VT	70m (230’)	77m (252’)	80m (262’)	84m (275’)	96m (315’)
Lane spacing (l) with end nozzle K1 or Luxor	75m (246’)	82m (269’)	85m (278’)	90m (295’)	N/A
Band width (D) (Nelson S3030/R3030)	12m/15m (39’/49’)	12m/15m (39’/49’)	12m/15m (39’/49’)	12m/15m (39’/49’)	12m/15m (39’/49’)
Flow - m³/hr (imp gpm)	22 – 72 (80 – 264)	22 – 72 (80 – 264)	22 – 82 (80 – 300)	22 – 82 (80 – 300)	22 – 82 (80 – 300)
Operating pressure with end PCS or PCR3030 or R55VT	1 – 2.5 bar (15 – 37 psi)	1 – 2.5 bar (15 – 37 psi)	1 – 2.5 bar (15 – 37 psi)	1 – 2.5 bar (15 – 37 psi)	1 – 2.5 bar (15 – 37 psi)
Operating pressure with end sprinkler K1 or Luxor	3 – 4 bar (45 – 60 psi)	3 – 4 bar (45 – 60 psi)	3 – 4 bar (45 – 60 psi)	3 – 4 bar (45 – 60 psi)	N/A
Quantity of outlets	18	20	22	22	26
Folded length – m (ft)	7.4m (24’7”)	7.4m (24’7”)	7.4m (24’7”)	7.4m (24’7”)	7.4m (24’7”)
Folded width – m (ft)	3.5m (11’6”)	3.65m (12’)	3.65m (12’)	3.65m (12’)	3.9m (12’8")
Wheelbase (T) – m (ft)	3.8m (12’6”)	3.8m (12’6”)	3.8m (12’6”)	3.8m (12’6”)	3.8m (12’6”)
Track width – 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”)	1.5 – 2.2m (60 – 86”)
Height to nozzle –m (in)	1.5m (60”)	1.5m (60”)	1.5m (60”)	1.5m (60”)	1.5 – 2.1m (60”– 82”)
Height to top of structure – m (ft)	2.93m (9’6”)	2.93m (9’6”)	2.93m (9’6”)	2.93m (9’6”)	3.6m (15’)
Height to top of structure with 3.1m high crop – m (ft)	4.6m (15’)	4.6m (15’)	4.6m (15’)	4.6m (15’)	4.6m (15’)
***Weight – kg (imp lb)**	*1660 kg (3650lb)	*1860 kg (4090lb)	*1865kg (4110lb)	*1870kg (4120lb)	*2050kg (4520lb)
Turning Circle – m (ft)	7.2m (23’6”)	7.2m (23’6”)	7.2m (23’6”)	7.2m (23’6”)	7.2m (23’6”)

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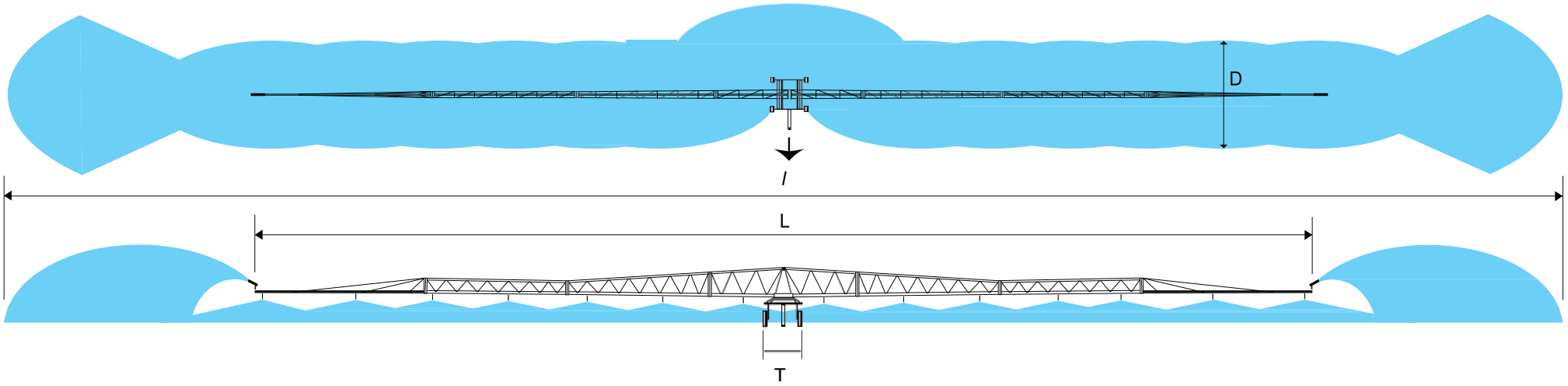
***Weights shown are for boom with offset Waterfeed on both ends of the chassis.**



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Nozzle Options

1. Nelson S3030 sprinkler kit - red / blue plate
2. Nelson R3030 sprinkler kit - brown / white plate
3. Nelson R3030 sprinkler kit - red / blue plate
4. Nelson R55VT end rotator
5. Drop pipe to lower nozzles
6. Splash plate slurry nozzle
7. Luxor turbine drive end sprinkler
8. Teso Jumbo 6 degree end sprinkler
9. K1 Teso 8 degree end sprinkler
10. Choice of pressure regulators

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BRIGGS IRRIGATION

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SCAN ME