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# **WATER CONSUMPTION**



# **ENERGY CONSUMPTION**



#### PRODUCTIVITY AND PROFITABILITY

The batch washing system is the way to wash and dry linen more efficiently where high volumes are required. It consists of: a loading system, a batch washer, an extraction press and a drying line. From loading to drying, the system works automatically with no labour needed.

Girbau manufactures all the components of the system, making it easier to synchronise, programme and control.

#### SAVE ON WATER, ENERGY AND CHEMICALS

The TBS-50 batch washer features a built-in water recirculation and recycling system. Different circuits make it possible to re-use the water in different phases of the process, ensuring lower water consumption and reducing environmental impact.

Moreover, the intensive mechanical action of the batch washer (programmable up to 270°) allows washing programmes to run at lower temperatures, in less time and using less chemicals.

It has an electronic flow control system for all inputs of mains water and can feature a flow control option on all water recirculation flows.

#### RELIABILITY

Transferring the load through a wide central aperture by rotating the drum prevents any risk of the load becoming clogged. A blade lifts up the load before transferring it. A series of continuously self-checking sensors confirm that the conditions for successful transfer are fulfilled.

## **CUT RUNNING COSTS**

Combining high productivity and efficiency with very precise control over the process achieves very low laundry running costs. Moreover, maintenance costs for the batch washer are very low, with minimum down time.















GENERAL SPECIFICATIONS		TBS50-5	TBS50-6	TBS50-7	TBS50-8	TBS50-9	TBS50-10	TBS50-11	TBS50-12
Dry linen capacity 1	kg	50 1							
Compartment number	-	5	6	7	8	9	10	11	12
(L) Total lenght	mm (in)	5921 (233)	6706 (263)	7491 (294)	8276 (325)	9061 (356)	9846 (387)	10631 (418)	11416 (449)
(L1) Lenght	mm (in)	5395 (212)	6180 (243)	6965 (274)	7750 (305)	8535 (336)	9320 (366)	10105 (397)	10890 (428)
(A) Width	mm (in)	2200 (86)							
Machine height	mm (in)	2878 (113)							
(H) Loading height	mm (in)	2528 (100)							
Weight	kg (lb)	5750 (12677)	6300 (13890)	6850 (15100)	7400 (16314)	7950 (17530)	8500 (18750)	9050 (19950)	9600 (21164)
Working weight	kg (lb)	9000 (19842)	10200 (22487)	11400 (25132)	12600 (27778)	13800 (30424)	15000 (33070)	16200 (35715)	17400 (38360)
DRUM SPECIFICATIONS									
Inner drum diameter	mm (in)	1850 (72.8)							
Inner drum lenght	mm (in)	780 (30.7)							
Inner drum volume	dm3 (cu ft)	2097 (74.0)							
Outer drum diameter	mm (in)	1950 (76)							
Number of beating blades	-	7							
Transfer diameter (top transfer)	mm (in)	850 (33)							
Rotation angle	0	270							
Speed range	r.p.m	2 - 8							
Production (for 24 min process time) 2	kg/h (lbs/h)	625 (1377)	750 (1653)	875 (1929)	1000 (2204)	1125 (2480)	1250 (2755)	1375 (3031)	1500 (3306)
CONECTION SERVICES									
Water									
Connection	DN-BSP	DN40 (1 1/2")							
Recommended pressure	bar (psi)	4 (58)							
Maximum flow	m3/h (cu ft/h)	40 (1428)	40 (1428)	40 (1428)	40 (1428)	40 (1428)	40 (1428)	40 (1428)	40 (1428)
Average flow 2	m3/h (cu ft/h)	3.1 (110)	3.6 (128)	4.2 (150)	4.7 (167)	5.3 (189)	5.9 (210)	6.4 (228)	7 (250)
Average consumption 2	I/kg (cu ft/lb)	4.9 (0.079)	4.8 (0.077)	4.8 (0.077)	4.7 (0.075)	4.7 (0.075)	4.7 (0.075)	4.7 (0.075)	4.7 (0.075)
Drain	mm (in)	150 (6")		'					
Maximum flow	m3/h (cu ft/h)	100 (3571)	100 (3571)	100 (3571)	100 (3571)	100 (3571)	100 (3571)	100 (3571)	100 (3571)
Steam									
Connection	DN-BSP	DN40 (1 1/2")							
Recommended pressure	bar (psi)	2-4 (30-58)							
Average consumption 2	kg steam/kg linen (lb steam/lb linen)	0.4 (0.4)	0.4 (0.4)	0.4 (0.4)	0.4 (0.4)	0.4 (0.4)	0.4 (0.4)	0.4 (0.4)	0.4 (0.4)
Compressed air									
Connection	DN (in)	DN8 (1/4")							
Recommended pressure	bar (psi)	5-8 (73-116)							
Average consumption 2	I/min (cu.ft min)	5 (0.18)	5 (0.18)	5 (0.18)	5 (0.18)	5 (0.18)	5 (0.18)	5 (0.18)	5 (0.18)
Chemical external dosing	mm (in)	DN10 /DN15 (3	3/8" / 1/2")						
Air exhaust	DN (in)	150 (5.9)							
Electricity									
Connection power	kW	14.5	14.5	21.6	21.6	21.6	21.6	21.6	21.6
Voltage	V	208 - 480							
Frecuency	Hz	50/60							
Average Consumption 2	kWh/h	8.3	9.3	10.2	11.1	12	13	14.2	15.5
Noise level	dBA	<70							
Vibrations	m/S2	<2.5							

- Notes
  1 50kg/110lbs dry cotton linen, 45kg/99lbs dry 50% synthetic and 50% cotton linen, 40kg/88lbs dry 100% synthetic linen
  2 Average values depending real washing process adjustment parameters

