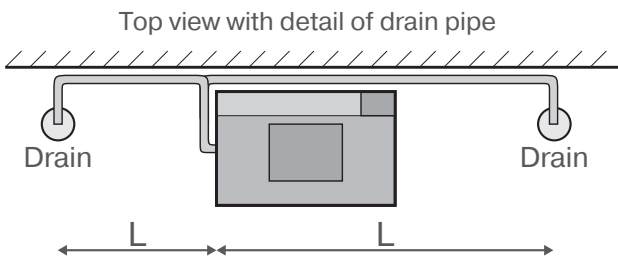


LFC-500

Biodigester



Only one drain is required on left side or right side of machine
Pipes normally run along wall for neatness, but can be direct
L = length of pipe run: 400 cm (160") maximum; 3 of 90° bends maximum; do not run pipes under the biodigester



LFC-500

Installation Requirements

Maximum capacity of food waste

500 kg (1100 lb)
505 litre (133 gallon)

Digestion of food waste per day

175–1500 kg (380–3300 lb) typical

Construction

All stainless steel (chassis, side panels, drum, shaft, arms, paddles, and load cells). Chassis is mirror finish (EN 10088-2 specification 2P)

Operating environment

Indoors or covered patio
Must not be exposed to rain, snow, or sunshine

Ingress protection

IP54 – splash proof and dust proof

Operating altitude

0 to 3000 m (9800 ft)

Ambient operating temperature

10°C~40°C (50°F~104°F) when altitude is less than 1000 m (3300 ft); reduce linearly to 24°C (75°F) at 3000 m

Floor surface flatness required

±5 mm (0.2")

Weight when empty

878 kg (1940 lb)

Moving and positioning

Machine is rolled into place with casters

Machine is raised once in position and supported by feet and rubber pads

Weight when full

1550 kg (3415 lb) maximum

Load and pressure per pad

549 kg (1211 lb) maximum

540 kPa (78 psi), maximum

Automatic door and NFC cards

Feed door is operated by linear motor activated by an NFC card or a hands free switch. Can use up to 100 different registered NFC cards

Inlet port (optional)

DN 115 sanitary fitting; supplied with bellows terminated in DN 100 sanitary fitting. Relay output signals to host system capacity of LFC biodigester

Space required around machine

Left side: 30 cm (12") minimum, 50 cm (20") preferred. 100 cm (39") is required for servicing

Right side: 15 cm (6") minimum, 50 cm (20") preferred. 150 cm (59") is required for servicing

Back: 2 cm (1")

Front: 60 cm (24") minimum

Water inlets

Filters: use external filters to remove particles and hardness

Fittings: DN 15 (½") female

Use flexible hose pipes to allow machine to move freely. Install valves to disconnect water for servicing and backflow prevention devices if required

Pressure: 275 to 675 kPa (40 to 98 psi, 2.8 to 6.9 kg/cm²)

Flow rate: 20 litre per minute (5 gpm) max. @ 450 kPa (65 psi, 4.5 kg/cm²)

Drum water: 35°C~50°C (95°F~120°F)

Washout water: 15°C~75°C (60°F~165°F)

Use WMX-20 water system or use external mixing valves, heaters, pressure reducers, and bladder tanks to meet the above requirements as needed

Water input per day

1500 litre (400 gallon) typical

Water outlet

Typically use flexible coupling on output to permit machine to move freely

Install stop valve on outlet pipe (used for commissioning)

Slope pipe down by about 1 in 45 (1.3°)

Drain

Type: Must exit to sewer (not storm drain); grease trap is required in most jurisdictions

Size: 75 mm (3") minimum

Total water output per day

2000 litre (528 gallon), typical

Flow rate of waste water out

49 l/min (13 gpm), maximum
1.4 l/min (0.4 gpm), typical average

AC supply (order one type)

Without neutral (3L+PE), 50 Hz or 60 Hz

208 V: 187 V to 230 V

250 V: 230 V to 260 V

400 V: 360 V to 440 V

440 V: 400 V to 480 V

With neutral (3L+N+PE), 50 Hz or 60 Hz

400 V: 360 V to 440 V

External circuit breaker required: 15 A

AC power outlet

Can wire directly (without a plug and socket). Facility power outlet must be accessible by operator and have a safety disconnect

Emergency switch is optionally fitted on chassis

AC power cord

Length of cable on machine: 180 cm (6'); L15-20 plug fitted on 208 V machine; no plug on other options

Maximum power

2.8 kW

Electrical energy per day

17 kWh typical

Heat generated by digestion

50 W to 200 W, 100 W typical

User interface

22 mm 3-color LED

7" touchscreen with 65k colors

Ethernet

RJ45, 100 baseT

DHCP or fixed IP address

Connect to Internet with direct cable, Wi-Fi client, or GSM modem

Automatically connects to LFC Cloud for remote support, reporting, and monitoring (included in purchase price)

Powerzyme

Microorganisms and enzymes

5 litre, included with initial purchase

Powerchips

Medium for microorganisms

500 litre, included with initial purchase

Operating lifetime

Expected to be 15 to 25 years

Warranty

3 years on all parts and components

(1 year for marine, security, and rentals)

Subject to terms and conditions

Hygiene

NSF/ANSI 13-2024

Weighing

NTEP certified to NIST Handbook 44

Safety

Certified to UL430 edition 8 (waste disposal machines)

CAN/CSA-C22.2 No. 60335-1:11 R16

CAN/CSA-C22.2 No. 60335-2-16:16

EN 60335-1:2012+A11:2014+A13:2017

+A1:2019+ A14:2019+A2:2019

EN 60335-2-16:2003+A1:2008+A2:2012

+A11:2018

EMC and EMI

47 CFR FCC part 15, subpart B, class B

ICES-003:2016 Issue 6, class B

ANSI C63.4:2014

EN 61000-6-1:2007 & 2005

EN 61000-6-3:2007+A1:2011 & 2006

CISPR 16-2-3:2016

CISPR 16-2-1:2006

CISPR 16-1-2:2003 + A1:2004 + A2:2006

EN 61000-3-2:2005 +A1:2008 +A2:2009

EN 61000-3-3:2013

EN 61000-4-2:1995

EN 61000-4-3:2006

EN 61000-4-4:2004

EN 61000-4-5:2006

EN 61000-4-6:2014

EN 61000-4-8:1993

EN 61000-4-11:2004

EU directives

Low Voltage Directive: 2014 / 35 / EU

EMC Directive: 2014 / 30 / EU

RoHS Directive: 2011 / 65 / EC

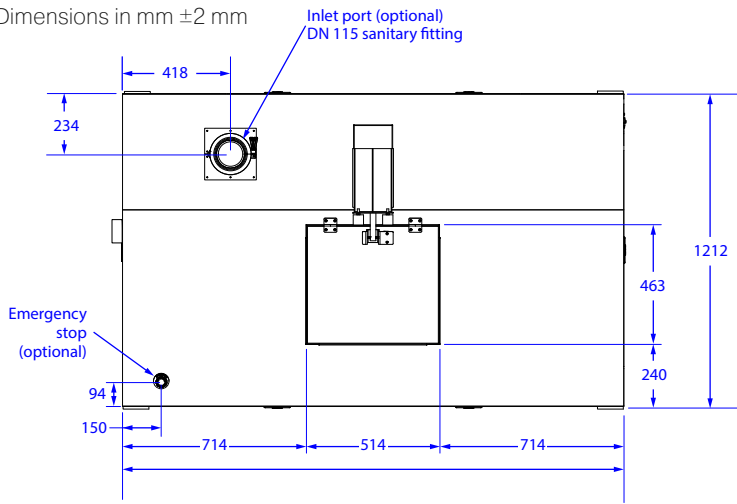
WEEE Directive: 2012 / 19 / EC



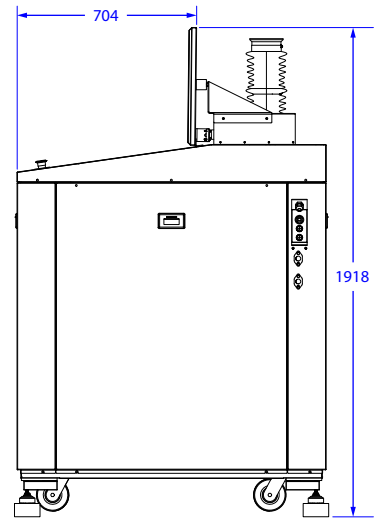
For complete details see User's Manual

LFC-500

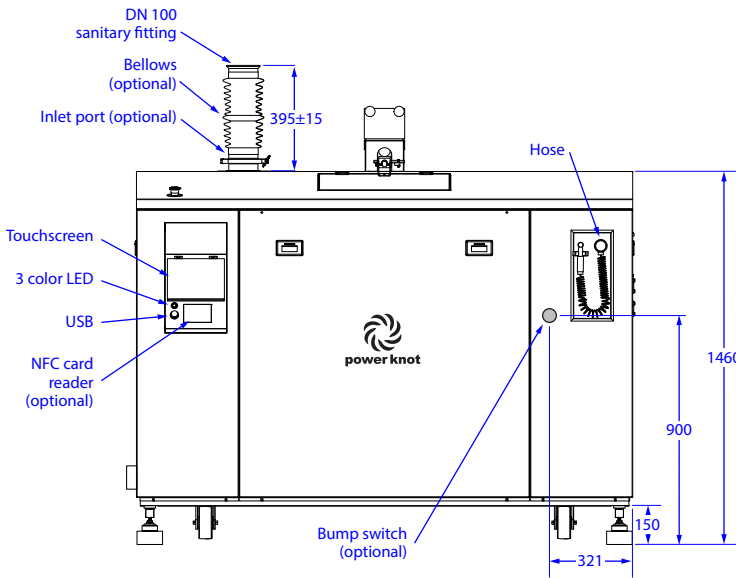
Dimensions in mm ±2 mm



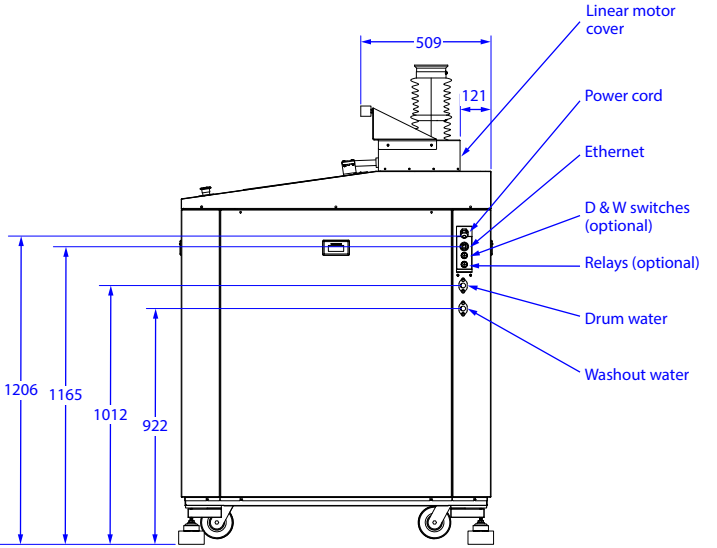
Top



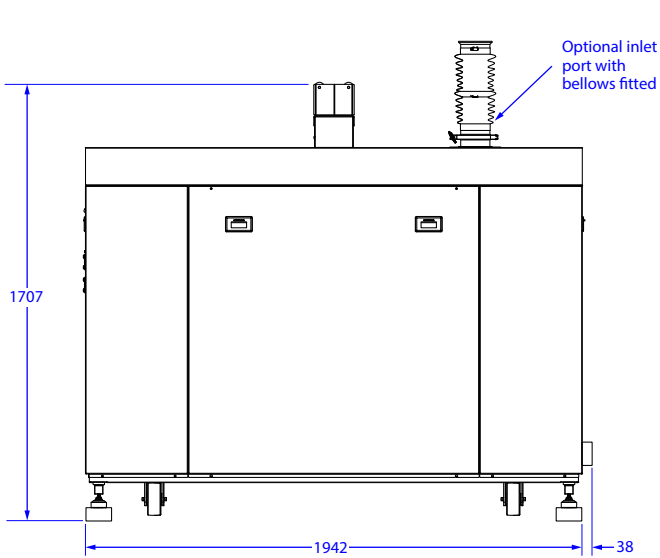
Right with door fully open



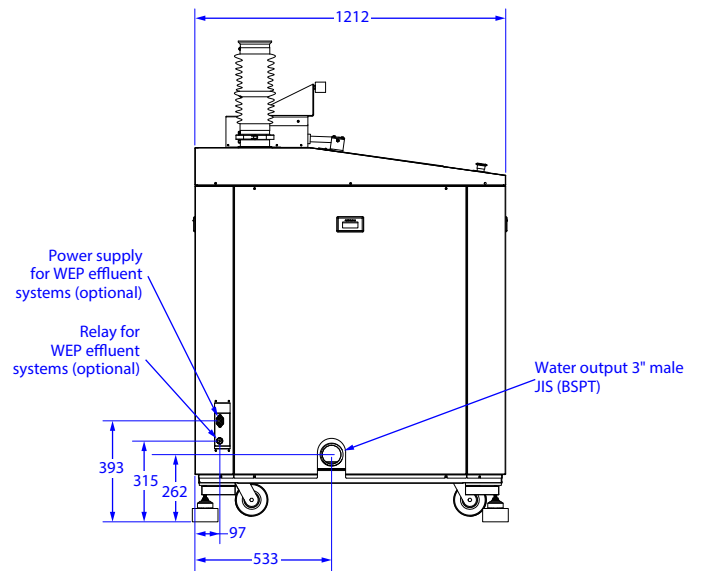
Front



Right



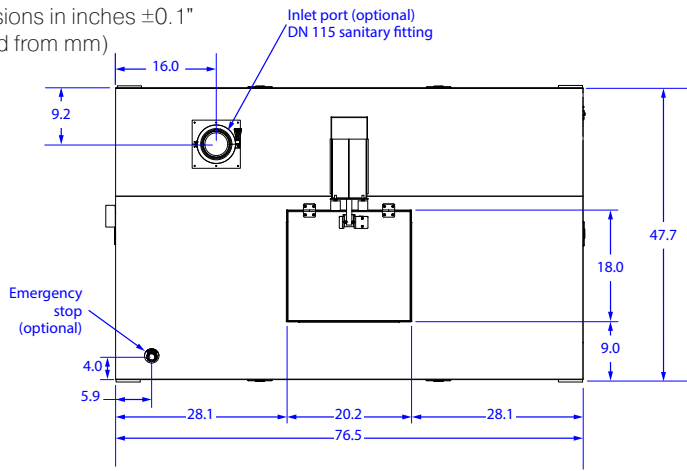
Back



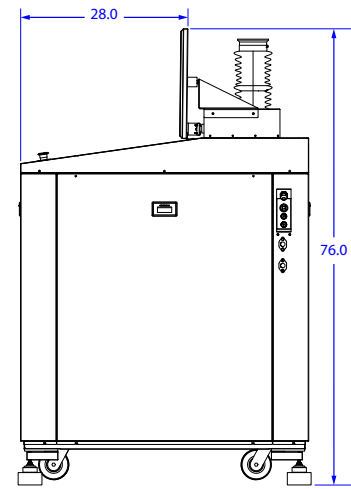
Left

LFC-500

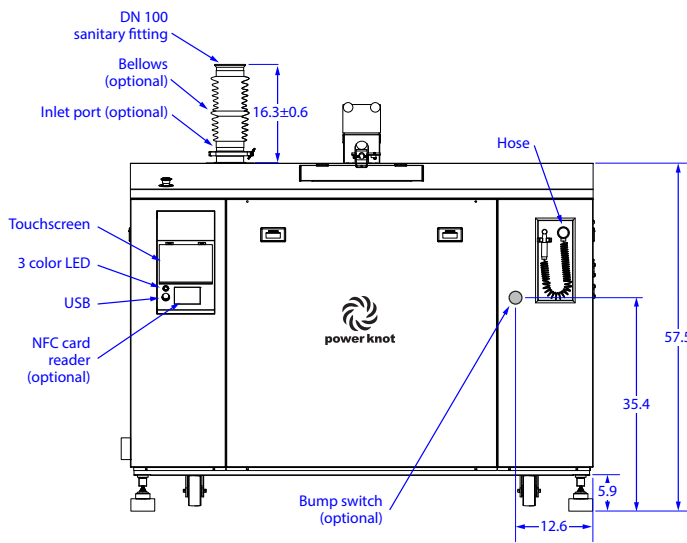
Dimensions in inches ±0.1"
(derived from mm)



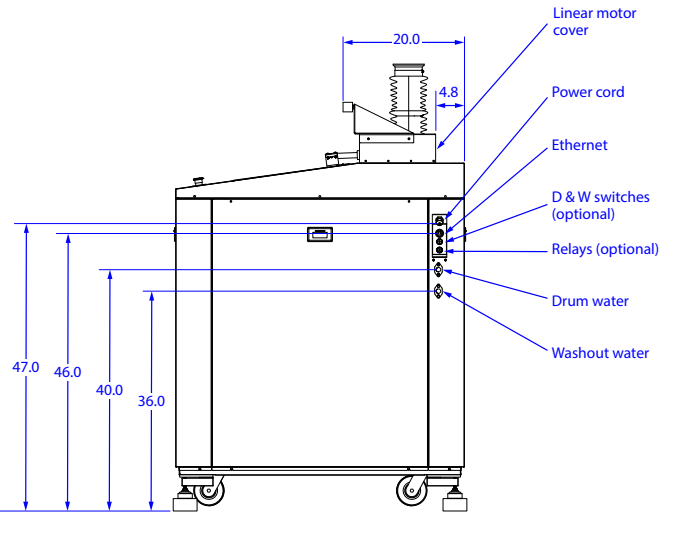
Top



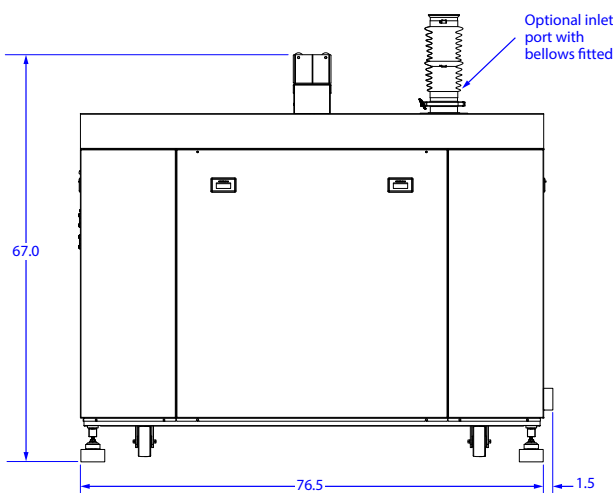
Right with door fully open



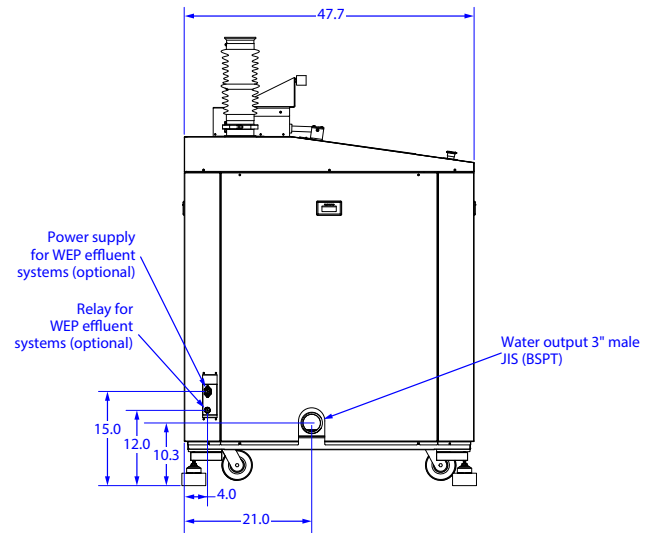
Front



Right



Back



Left



Power Knot LLC | 47613 Warm Springs Blvd | Fremont, CA 94539 USA | +1-408-889-8433 | info@powerknot.com | www.powerknot.com

Power Knot, the Power Knot logo, the Power Knot mark, LFC, LFC Cloud, Powerchips, and Powerzyme are trademarks or registered trademarks of Power Knot LLC. All other trademarks used herein are the property of their respective owners. Copyright © 2009–2026 Power Knot LLC; all rights are reserved. Specifications are subject to change at any time without notice. Document number 96-01039-45, 21 April 2026.