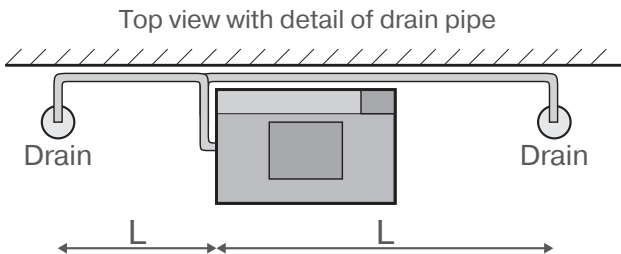
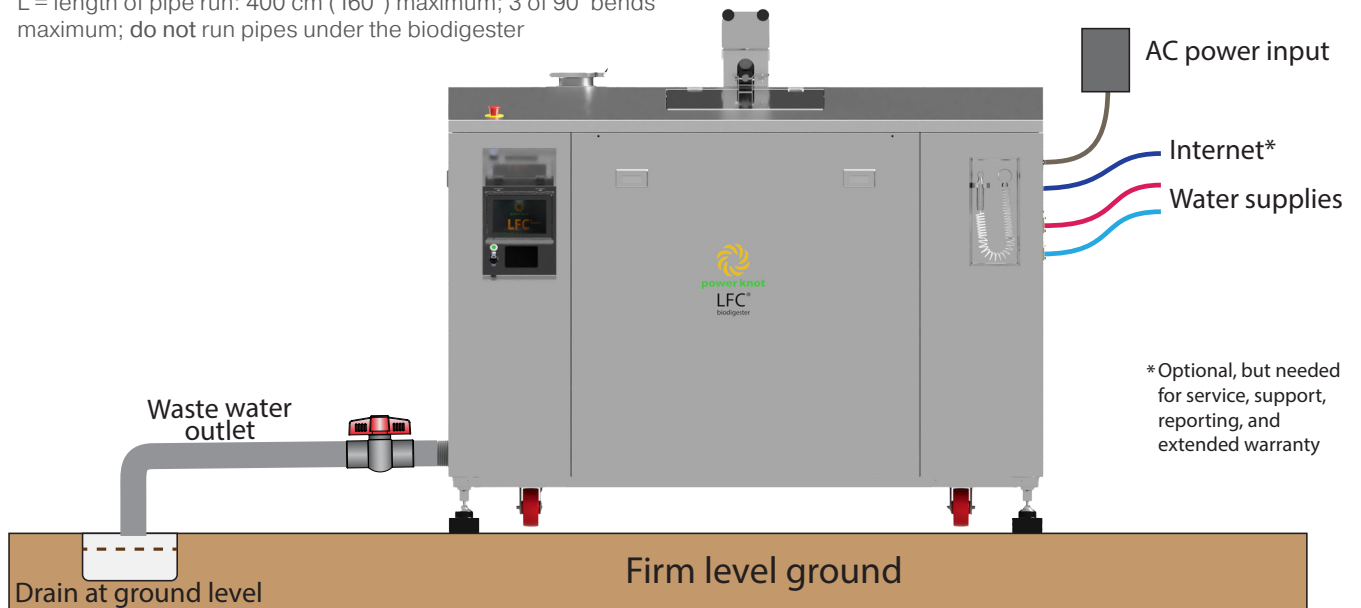


# LFC-500

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



\*Optional, but needed for service, support, reporting, and extended warranty

# 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

±15 mm (0.6")

### 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. 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 550 kPa

(40 to 80 psi, 2.8 to 5.6 kg/cm<sup>2</sup>)

**Flow rate:** 20 litre per minute (5 gpm) max. @ 450 kPa (65 psi, 4.5 kg/cm<sup>2</sup>)

**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)

**208 V or 250 V**

180 V to 230 V, 50 Hz to 60 Hz

230 V to 270 V, 50 Hz to 60 Hz

3-phase + PE

**400 V**

380 V to 440 V, 50 Hz to 60 Hz,

3-phase + neutral + PE (standard)

3-phase + PE (special order)

**460 V**

440 V to 480 V, 50 Hz to 60 Hz

3-phase + PE

External circuit breaker required: 15 A

### AC power outlet

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

Emergency switch (e-switch) on top panel is optional order.

### AC power cord

Length of cable on machine: 180 cm (6')

208 V is fitted with NEMA L15-20 plug; all other voltages plug is not installed

### 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

### 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

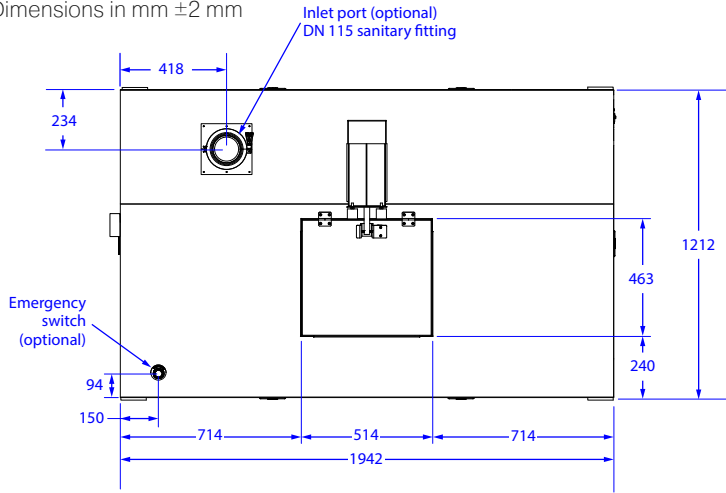
WEEE Directive: 2012 / 19 / EC



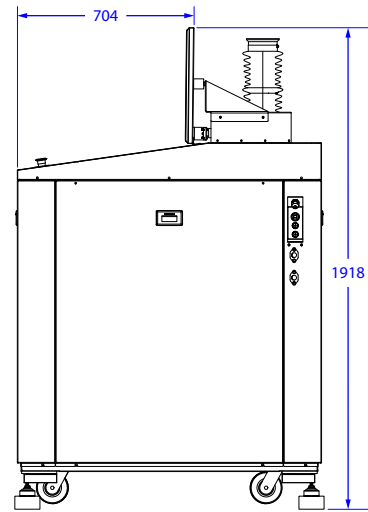
For complete details see User's Manual

# LCD-500

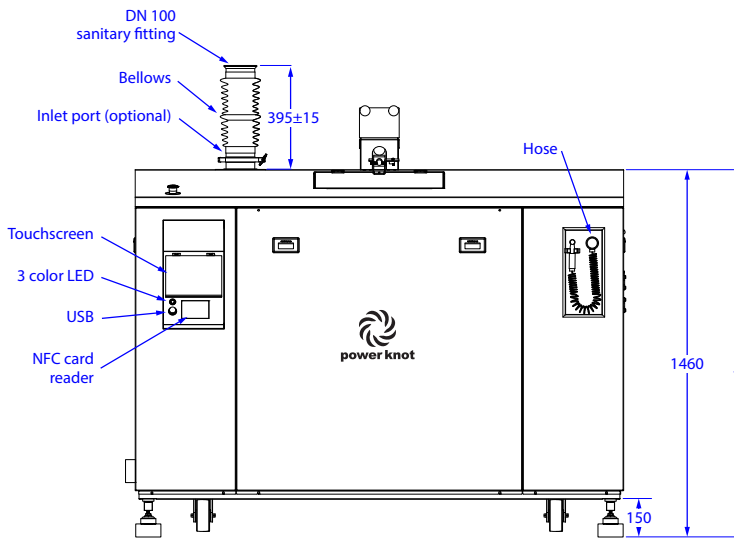
Dimensions in mm ±2 mm



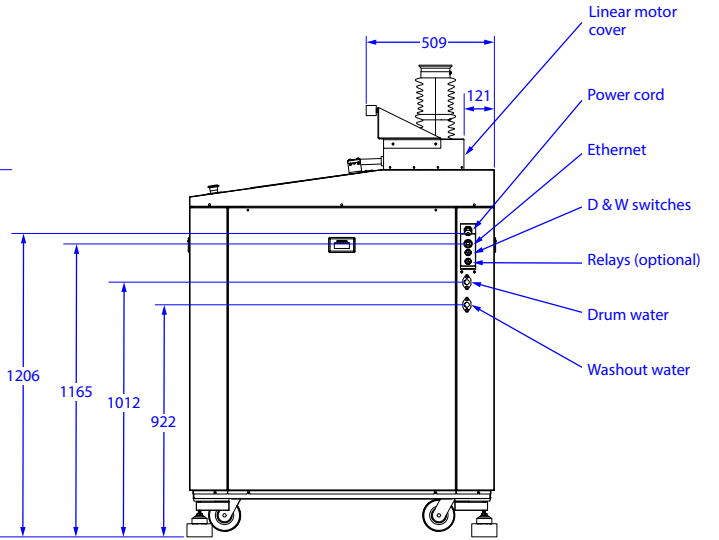
Top



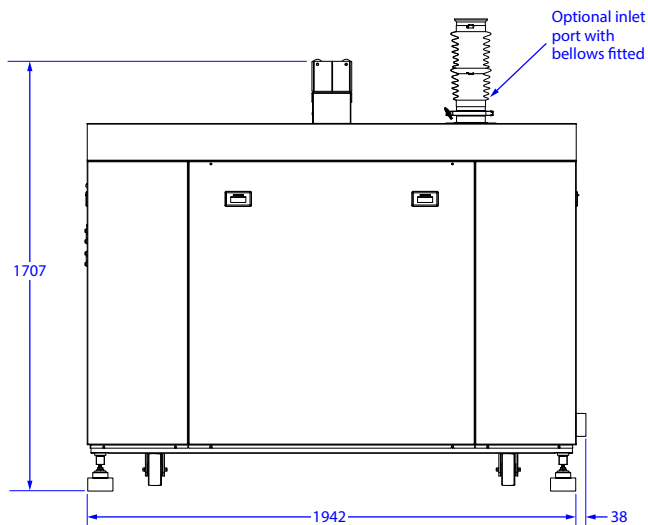
Right with door fully open



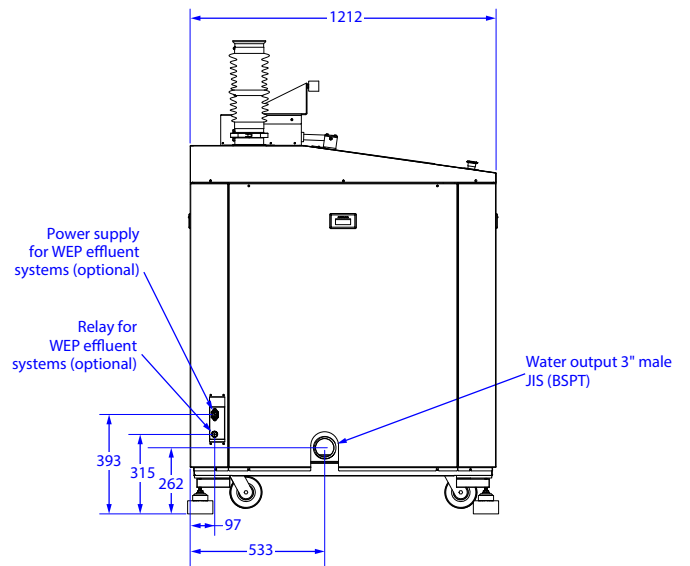
Front



Right



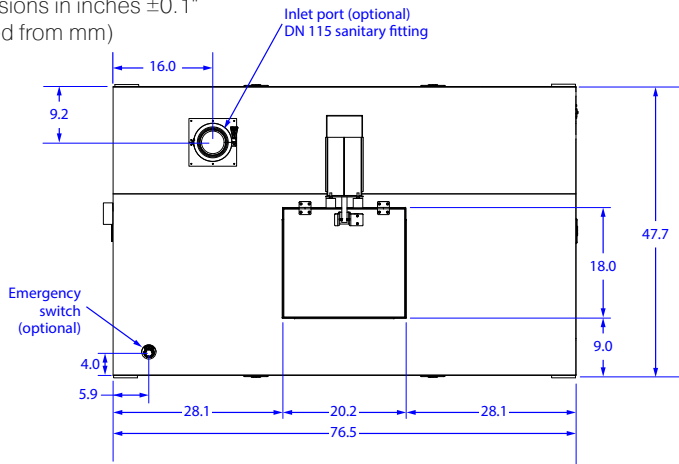
Back



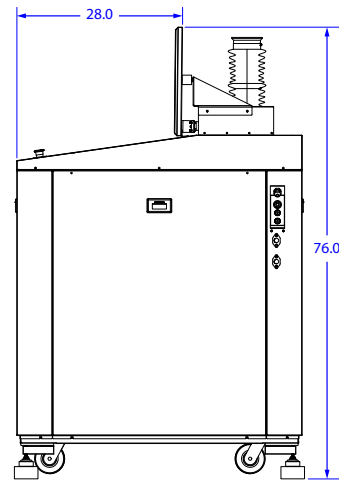
Left

# LFC-500

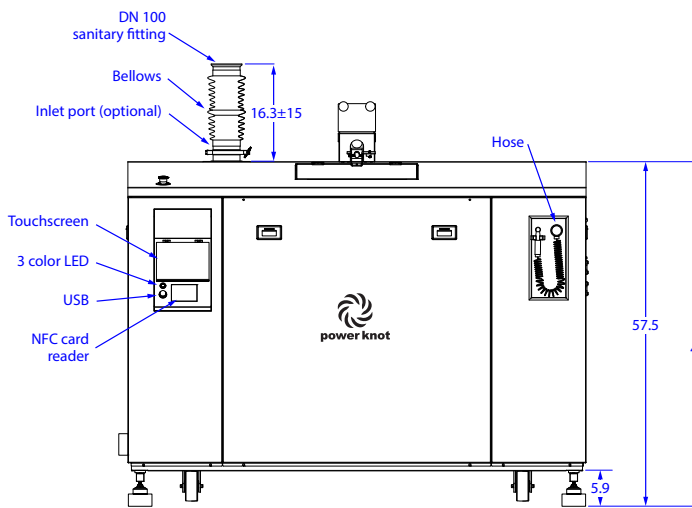
Dimensions in inches ±0.1"  
(derived from mm)



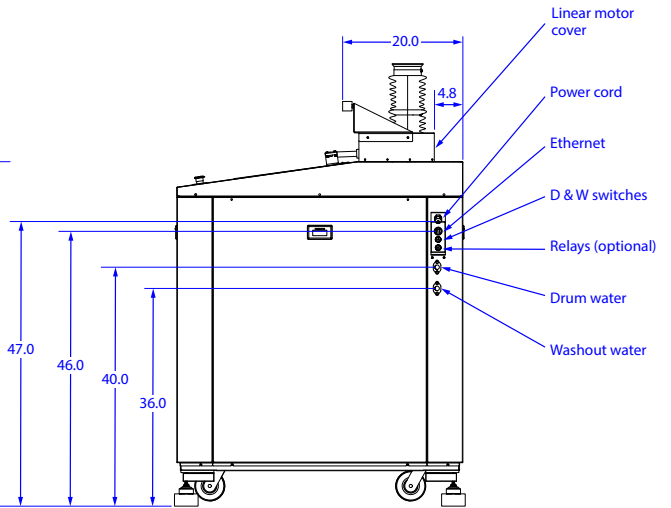
Top



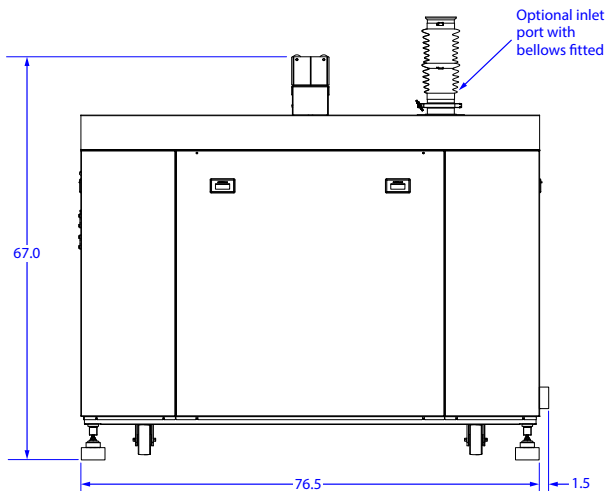
Right with door fully open



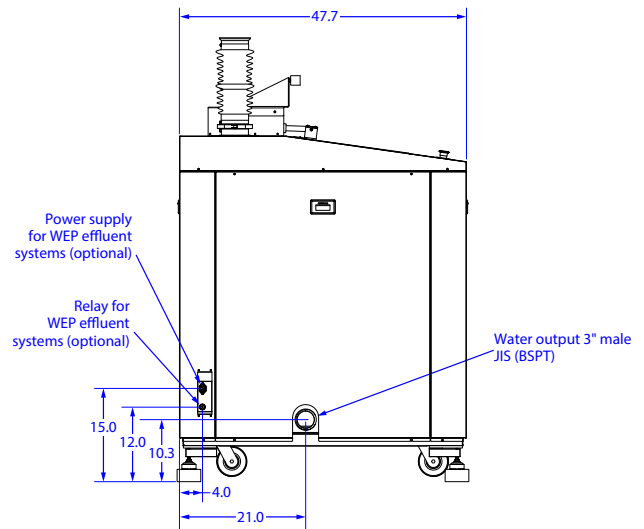
Front



Right



Back



Left



Power Knot LLC | 47613 Warm Springs Blvd | Fremont, CA 94539 USA | +1-408-889-8433 | [info@powerknot.com](mailto:info@powerknot.com) | [www.powerknot.com](http://www.powerknot.com)

Power Knot, the Power Knot logo, the Power Knot mark, LFC, and LFC Cloud are trademarks or registered trademarks of Power Knot LLC. All other trademarks used herein are the property of their respective owners. Copyright © 2009–2024 Power Knot LLC; all rights are reserved. Specifications are subject to change at any time without notice. Document number 96-01039-39, 05 May 2024.