

# LANCASTER PRODUCTS

World Leaders in Material Processing Equipment

## LANCASTER<sup>®</sup> PRODUCTS

Manufactured by Kercher Industries, Inc.  
1.800.447.7351  
outside of U.S. phone: 717.273.2111  
fax: 717.273.2967  
email: [info@lancasterproducts.com](mailto:info@lancasterproducts.com)  
[www.lancasterproducts.com](http://www.lancasterproducts.com)



## Lancaster<sup>®</sup> Low Shear Mixers

## LANCASTER<sup>®</sup> PRODUCTS

Manufactured by Kercher Industries, Inc.  
1.800.447.7351  
outside of U.S. phone: 717.273.2111 fax: 717.273.2967  
email: [info@lancasterproducts.com](mailto:info@lancasterproducts.com) [www.lancasterproducts.com](http://www.lancasterproducts.com)

The Lancaster Products Line of Material Processing Equipment

- High Shear K-Series Mixers
- Low Shear L-Series Mixers
- K-Lab Mixers
- Pug Mills
- Roll Crushers
- Table Feeders

Automated Material Handling and Batching Systems  
AutoBrik Molded Brick Making Machines

# Lancaster® L-Series Mixers

Lancaster Low Shear L-Series Mixers come with or without mullers, depending upon your application. Each model can handle a wide range of applications.

Each is ruggedly constructed, fully self-contained, easy to operate, and simple to maintain.



**PC**



**LWD**



**30-DP**



**X-30-BH  
(abrasives)**



**1-DP**



**L3**



**L4**



**L80**



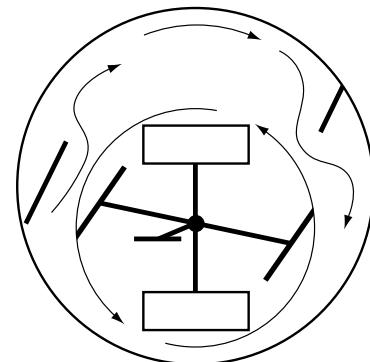
**L108**

|                                           |                                                                                                                         |                                                                                                                 |                                                                                                                 |                                                                                                                 |                                                                                                                 |                                                                                                                |                                                                                                            |                                                                                                                     |                                                                                                  |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>Batch Capacity</b>                     | <b>Min:</b> 3/4" layer<br>1/20 cu. ft. or 1/3 gal.<br><b>Max:</b> 1-1/2" layer<br>1/10 cu. ft. or<br>3/4 gal. (10 lbs.) | <b>Min:</b> 1" layer<br>1/8 cu. ft. or 1 gal.<br><b>Max:</b> 4-3/4" layer<br>5/8 cu. ft. or 5 gal.<br>(65 lbs.) | <b>Min:</b> 1" layer<br>3/8 cu. ft. or 3 gal.<br><b>Max:</b> 4" layer<br>1-3/4 cu. ft. or 13 gal.<br>(175 lbs.) | <b>Min:</b> 1" layer<br>3/8 cu. ft. or 3 gal.<br><b>Max:</b> 4" layer<br>1-3/4 cu. ft. or<br>13 gal. (175 lbs.) | <b>Min:</b> 1" layer<br>3/8 cu. ft. or 3 gal.<br><b>Max:</b> 4-1/2" layer<br>2 cu. ft. or 15 gal.<br>(200 lbs.) | <b>Min:</b> 2" layer<br>2 cu. ft. or 16 gal.<br><b>Max:</b> 5-1/2" layer<br>5 cu. ft. or 40 gal.<br>(500 lbs.) | <b>Min:</b> 2" layer<br>3 cu. ft. or 24 gal.<br><b>Max:</b> 6" layer<br>9 cu. ft. or 72 gal.<br>(900 lbs.) | <b>Min:</b> 5" layer<br>13 cu. ft. or 95 gal.<br><b>Max:</b> 14-1/2" layer<br>45 cu. ft. or 300 gal.<br>(2000 lbs.) | <b>Min:</b> 15 cu. ft.<br><b>Max:</b> 80 cu. ft.<br>4000 lbs. w/Mullers<br>6000 lbs. w/o Mullers |
| <b>Mixer Pan</b>                          | 12" dia. x 5"<br>Removable                                                                                              | 18" dia. x 8-1/2"<br>Removable                                                                                  | 29-1/2" dia. x 11"<br>Removable                                                                                 | 29-1/2" dia. x 11"<br>Removable                                                                                 | 29-3/4" dia. x 14"<br>Central Discharge                                                                         | 45-5/6" dia. x 15-3/4"<br>Central Discharge                                                                    | 59" dia. x 15-3/4"<br>Central Discharge                                                                    | 80" dia. x 22"<br>Central Discharge                                                                                 | 109" dia. (top)<br>80" dia. (bottom)<br>x 46-1/2" deep<br>Central Discharge                      |
| <b>Tool Selection</b>                     | 1 Plow or<br>1 Plow and Muller<br>Pan Side Scraper                                                                      | 1 or 2 Plows or<br>1 Plow and Muller<br>Pan Side Scraper                                                        | 3 Plows or<br>2 Plows and Muller<br>Pan Side Scraper                                                            | 3 Plows with<br>"Doctor" blades<br>Pan Side Scraper                                                             | 3 Plows or<br>2 Plows and Muller<br>Pan Side Scraper                                                            | 3 Plows or<br>2 Plows and Muller<br>Pan Side Scraper                                                           | 3 Plows or<br>2 Plows and 1 Muller<br>Pan Side Scraper                                                     | 4 Plows or 2 Plows<br>and 2 Mullers<br>Pan Side Scraper                                                             | 3 Plows or 2 Plows<br>and 2 Mullers<br>Pan Side Scraper                                          |
| <b>Mixing Speeds</b>                      | Tools: 100 RPM<br>Pan: 36 RPM                                                                                           | Tools: 56 RPM<br>Pan: 13 RPM                                                                                    | Tools: 41 RPM<br>Pan: 10-1/2 RPM                                                                                | Tools: 56 RPM<br>Pan: 16-1/2 RPM                                                                                | Tools: 47 RPM<br>Pan: 12-1/2 RPM                                                                                | Tools: 40-60 RPM<br>Pan: 9-13 RPM                                                                              | Tools: 32-48 RPM<br>Pan: 8-12 RPM                                                                          | Tools: 28-35 RPM<br>Pan: 7-9 RPM                                                                                    | Tools: 20 RPM<br>Pan: 6 RPM                                                                      |
| <b>Drive Equipment</b>                    | Direct-connected<br>1/4 hp gear motor<br>1/60/115v                                                                      | Direct-connected<br>1 hp gear motor<br>3/60/230-460v                                                            | Direct-connected<br>3 hp gear motor<br>3/60/230-460v                                                            | Direct-connected<br>1-1/2 and 3 hp gear motor<br>3/60/230-460v                                                  | Direct-connected<br>5 hp gear motor<br>3/60/230-460v                                                            | Direct-connected<br>7-1/2 and 10 hp gear motor<br>3/60/230-460v                                                | Direct-connected<br>10 and 15 hp gear motor<br>3/60/230-460v                                               | Direct-connected<br>15 and 20 hp gear motor<br>3/60/230-460v                                                        | Direct-connected<br>20 and 25 hp gear motor<br>3/60/230-460v                                     |
| <b>Sizes and Weights</b><br>(approximate) | 16"w. x 30"d. x 40"h<br>325 lbs.                                                                                        | 23"w. x 32"d. x 58"h<br>1100 lbs.                                                                               | 32"w. x 59"d. x 71"h<br>1850 lbs.                                                                               | 33"w. x 51"d. x 52"h<br>(Open - 66"h.)<br>2160 lbs.                                                             | 35"w. x 67"d. x 78"h<br>3000 lbs.                                                                               | 51"w. x 94"d. x 72"h<br>4500 lbs.                                                                              | 66"w. x 110"d. x 78"h<br>7000 lbs.                                                                         | 86"w. x 140"d. x 93"h<br>22,000 lbs.                                                                                | 112"w. x 117"d. x 129"h<br>43,000 lbs.                                                           |

## What is Counter-Current Mixing?

Lancaster's Counter-Current mixing action is widely accepted as the most effective technique for consistent uniformity and thoroughness. Simply stated, counter-current action occurs when the pan rotates in one direction, while the mixing tools rotate in the other. The rotating mixing pan conveys the material to the counter-rotating tool assembly located off-center of the pan. This results in a countless cross-over of layers with maximum particle travel both vertically and horizontally, without depending on free fall.

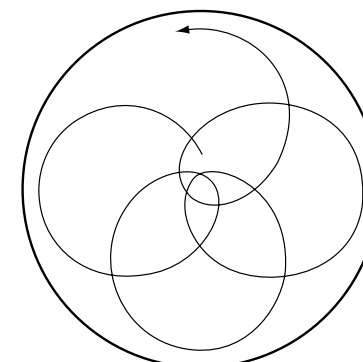
Mulling is sometimes an important addition to mixing. Equipping Lancaster Mixers with muller assemblies imparts the kneading, rubbing and smearing action of a mortar and pestle, along with the intensive mixing of the counter-current system.



Drawing A

Drawing A illustrates the combined action of the pan rotating clockwise while the off-center mixing tool assembly rotates counter-clockwise.

Drawing B illustrates the path of travel created by the tools as the pan completes one revolution. Multiplied in terms of RPM, this mixing action becomes quite intensive.



Drawing B

Visit our website at: [www.lancasterproducts.com](http://www.lancasterproducts.com)

**LANCASTER®  
PRODUCTS**

Mfd. by Kercher Industries, Inc.

**1.800.447.7351**  
outside U.S. **717.273.2111**  
Fax: 717.273.2967

email: [info@lancasterproducts.com](mailto:info@lancasterproducts.com)  
[www.lancasterproducts.com](http://www.lancasterproducts.com)