



# MCE Counterflow Coolers

**2026**

**Engineered for  
consistent output.**

[www.midwestcustomengineering.com](http://www.midwestcustomengineering.com)  
[info@usemce.com](mailto:info@usemce.com)



Rotary feed and spreader create a consistent bed depth.

Upward airflow is controlled for efficient, uniform cooling.

Sensors regulate product release for steady operation.

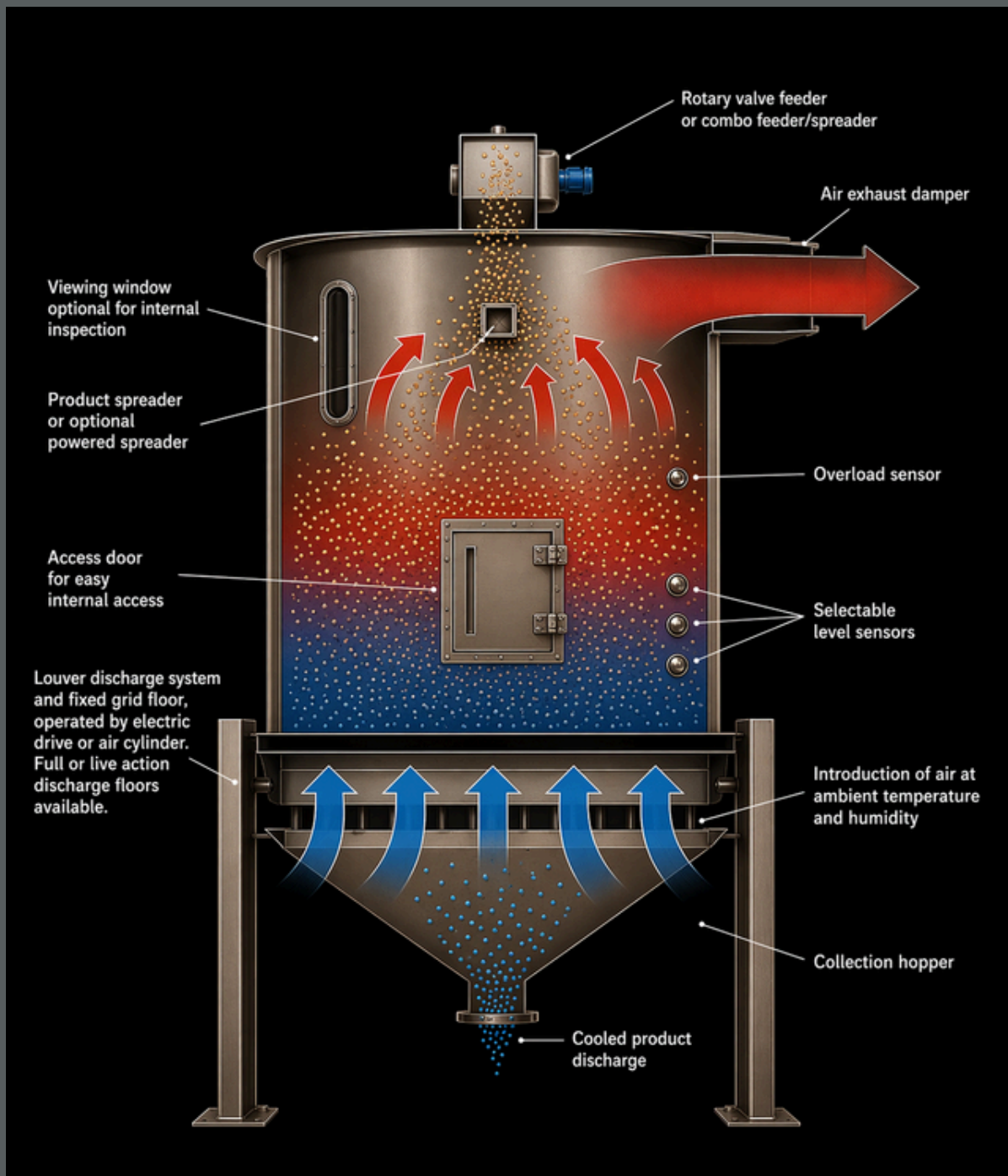
Supports load while minimizing wear and maintenance.

Stepwise discharge ensures proper retention and full cleanout.

Built-in access points for easy monitoring and servicing.



**Counterflow pellet cooling  
built for your process.**



### Controlled product entry

Material enters from the top and forms a stable, even bed.

### Counterflow air movement

Ambient air moves upward through the product, creating continuous contact.

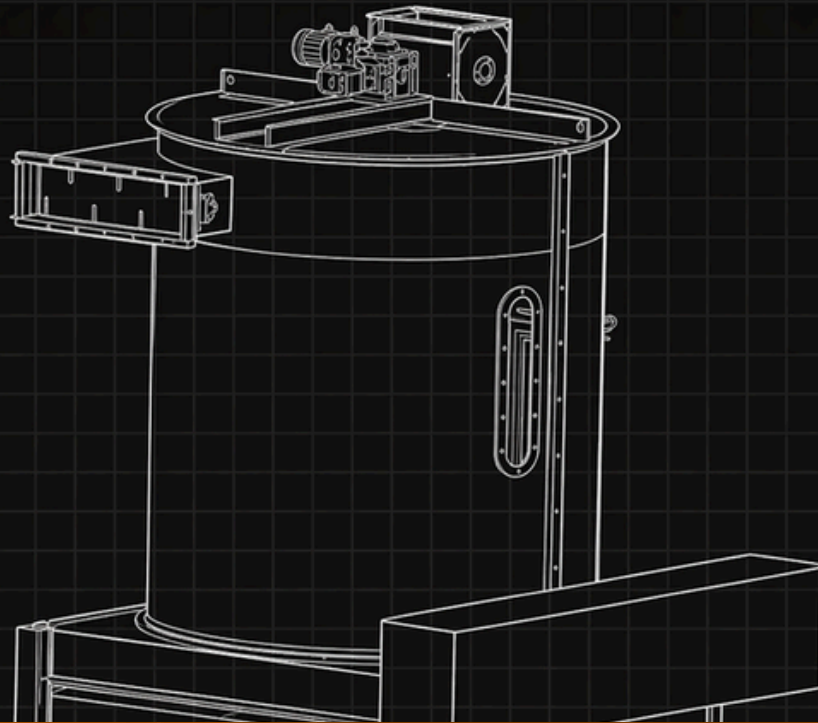
### Gradual heat transfer

Cooling happens progressively, avoiding thermal shock and product stress.

### Uniform discharge

Material exits near ambient temperature with consistent moisture and quality.

## The Science Behind Counterflow Cooling



### Counterflow Cooling Principle

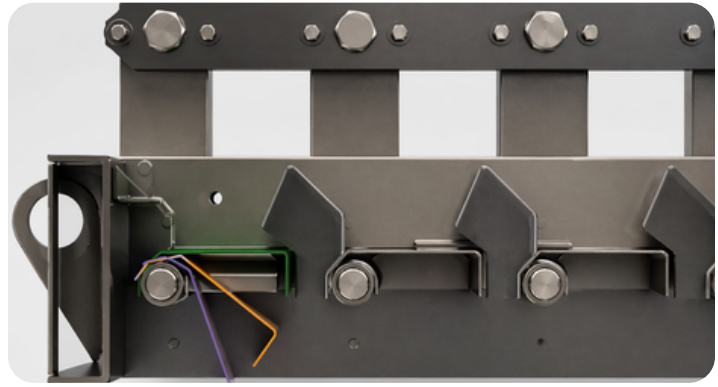
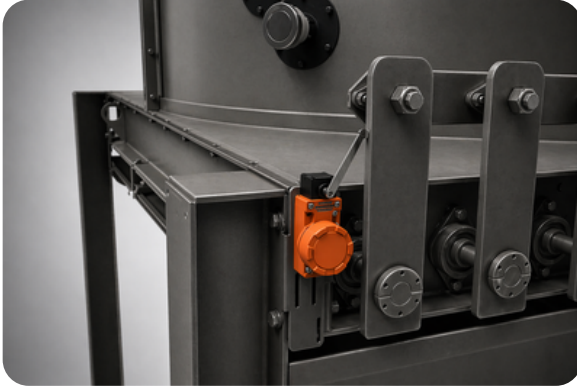
The system operates on a counterflow process where ambient air moves upward through the product as it descends through the chamber. As the air rises, it absorbs heat and moisture, increasing its capacity to carry both away from the material. This opposing flow enables efficient and controlled heat exchange throughout the cooling cycle.

### Gradual Heat Transfer without Stress

Material entering the top of the chamber is exposed to progressively warmer air, allowing cooling to occur in stages. This controlled transition minimizes temperature shock, reducing product stress, degradation, and the formation of fines during processing.

### Uniform Cooling with Efficient Chamber Design

The circular chamber design promotes even distribution of product and eliminates dead zones within the system. Combined with the counterflow process, this ensures consistent cooling across the entire bed, allowing material to exit within close range of ambient temperature while maintaining product quality.



## Level- controlled louver discharge design

The inverted “V” grid floor supports the product bed efficiently, keeping load off the discharge louvers and ensuring stable operation. Beneath it, pivoting louvers release material in a controlled, stepwise flow — handling everything from fine pellets to larger forms with consistency.

Built on heavy-duty, re-greasable bearings and powered by air or electric actuation, the system is designed for reliability and complete cleanout at the end of every run.

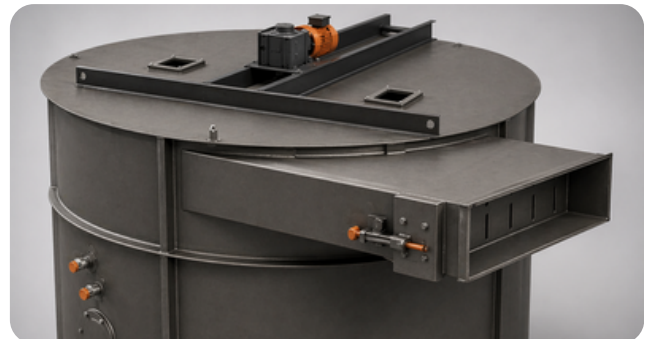


### → Selectable level sensing system

Automated level sensors monitor the product bed and activate discharge once the set depth is reached, ensuring consistent retention and steady flow. A dedicated fail-safe sensor near the top of the chamber prevents overfilling, adding an extra layer of operational control and safety.

## Versatile across multiple applications

The system is designed to handle a wide range of materials, from granular meals to pellets and formed products of varying sizes and densities. It is commonly used across applications such as animal feed, pet food, biomass, plastics, and agricultural products, where consistent cooling is critical.



# Cooling that performs under real conditions.

“MADE IN AMERICA” REAWAKENED



FORGED IN THE CRUCIBLE OF LIBERTY  
POWERED BY THE FUEL OF FREEDOM

COOLER MODEL	BIN DIA.	EST. WEIGHT (LBS)	OVERALL HEIGHT	LEG HEIGHT	LEG CENTER TO CENTER	LEG CENTER TO CENTER	HOPPER OUTLET	HOPPER OUTLET	EXHAUST HEIGHT	EXHAUST WIDTH	EXHAUST CNTR. HT.	PLAN LENGTH	PLAN LENGTH	GUARD LENGTH
5-344	43-1/2"	1,500	117-1/16"	59"	53"	45"	11"	24"	5"	13-1/2"	110-7/8"	37-1/4"	34-11/16"	57"
5-43-5	43-1/2"	1,600	128-13/16"	59"	53"	45"	11"	24"	6"	13-1/2"	122-1/8"	37-1/4"	34-11/16"	57"
5-52-6	43-1/2"	1,700	139-11/16"	59"	53"	45"	11"	24"	6"	16-1/2"	134"	37-1/4"	35-5/8"	57"
6-49-4	52"	2,000	122-9/16"	63-3/8"	61-1/2"	53-1/2"	11"	32"	6"	16-1/2"	122-9/16"	41-1/2"	38-3/4"	65-1/2"
6-81-5	52"	2,100	134-13/16"	63-3/8"	61-1/2"	53-1/2"	11"	32"	7"	17"	134"	41-1/2"	38-15/16"	65-1/2"
6-74-6	52"	2,200	146-15/16"	63-3/8"	61-1/2"	53-1/2"	11"	32"	20"	20"	139-3/4"	41-1/2"	39-13/16"	65-1/2"
7-67-4	60-1/2"	2,600	128-1/16"	67-5/8"	70"	62"	11"	40"	7"	20"	128-1/16"	45-3/4"	46-1/16"	74"
7-83-5	60-1/2"	2,800	140-9/16"	67-5/8"	70"	62"	11"	40"	7"	22"	130-3/8"	45-3/4"	43-1/16"	74"
7-100-6	60-1/2"	3,000	153-5/16"	67-5/8"	70"	62"	11"	40"	8"	24"	145-5/8"	45-3/4"	44-3/16"	74"
8-87-4	69"	3,500	133-9/16"	71-7/8"	78-1/2"	70-1/2"	11"	50"	8"	21"	128"	50"	48-5/16"	82-1/2"
8-108-5	69"	3,700	146-1/16"	71-7/8"	78-1/2"	70-1/2"	11"	50"	8"	28"	138-3/8"	50"	47-15/16"	82-1/2"
8-130-6	69"	3,900	159-3/16"	71-7/8"	78-1/2"	70-1/2"	11"	50"	8"	31"	151-1/2"	50"	48-7/8"	82-1/2"
9-109-4	77-1/2"	4,400	138-13/16"	75"	87"	79"	12"	58"	8"	28"	131-1/4"	54-1/4"	51-1/8"	91"
9-136-5	77-1/2"	4,800	152-1/16"	75"	87"	79"	12"	58"	8"	31"	144-1/2"	54-1/4"	52-1/2"	91"
9-164-6	77-1/2"	4,800	165-5/16"	75"	87"	79"	12"	58"	9"	35"	157-1/4"	54-1/4"	52-1/8"	91"
10-134-4	88"	5,500	144-9/16"	79-1/2"	97-1/2"	85-1/2"	12"	66"	9"	29"	136-3/8"	58-1/2"	55-3/16"	101-1/2"
10-168-5	88"	5,700	158-1/16"	79-1/2"	97-1/2"	85-1/2"	12"	66"	9"	38"	149-7/8"	58-1/2"	56-15/16"	101-1/2"
10-202-6	88"	5,900	170-5/8"	79-1/2"	97-1/2"	85-1/2"	12"	66"	10"	38"	162"	58-1/2"	56-15/16"	101-1/2"
11-162-4	94-1/2"	6,900	150-3/16"	84"	106"	94"	12"	74"	9"	34"	142"	62-3/4"	59-7/8"	112"
11-203-5	94-1/2"	7,200	164-3/16"	84"	106"	94"	12"	74"	10"	39"	155-1/2"	62-3/4"	61-1/16"	112"
11-244-6	94-1/2"	7,500	178-1/16"	84"	106"	94"	12"	74"	12"	39"	168-3/8"	62-3/4"	61-1/16"	112"
12-193-4	103"	8,500	154-3/8"	87"	114-1/2"	102-1/2"	14"	82"	10"	37"	145-7/8"	67"	63-15/16"	120-1/2"
12-241-5	103"	8,800	168-11/16"	87"	114-1/2"	102-1/2"	14"	82"	12"	39"	159-1/4"	67"	64-1/2"	120-1/2"
12-289-6	103"	9,100	182-3/4"	87"	114-1/2"	102-1/2"	14"	82"	12"	45"	173-1/4"	67"	65-5/8"	120-1/2"
13-228-4	111-1/2"	9,800	159-1/2"	91"	123"	111"	14"	90"	12"	38"	150"	71-1/4"	67-3/8"	129"
13-283-5	111-1/2"	10,100	174-1/4"	91"	123"	111"	14"	90"	13"	42"	164-1/8"	71-1/4"	68-9/16"	129"
13-339-6	111-1/2"	10,600	188-3/4"	91"	123"	111"	14"	90"	13"	50"	178-5/8"	71-1/4"	69-15/16"	129"
14-262-4	120"	11,600	164-13/16"	95"	131-1/2"	119-1/2"	14"	100"	12"	48"	155-3/8"	75-1/2"	73-5/16"	137-1/2"
14-327-5	120"	12,100	179-3/4"	95"	131-1/2"	119-1/2"	14"	100"	13"	48"	169-3/4"	75-1/2"	73-5/16"	137-1/2"
14-393-6	120"	12,600	194-1/2"	95"	131-1/2"	119-1/2"	14"	100"	14"	50"	184-1/8"	75-1/2"	73-11/16"	137-1/2"
15-300-4	128-1/2"	13,600	169-3/16"	98"	140"	128"	16"	110"	13"	42"	159"	79-3/4"	78-13/16"	146"
15-375-5	128-1/2"	14,100	184-7/16"	99"	140"	128"	16"	110"	14"	50"	173-1/4"	79-3/4"	81-3/16"	146"
15-450-6	128-1/2"	14,600	199-9/16"	99"	140"	128"	16"	110"	15"	58"	188-3/8"	79-3/4"	82-1/4"	146"
16-341-4	137"	16,100	175-9/16"	103"	148-1/2"	136-1/2"	16"	120"	14"	48"	165"	84"	83-1/4"	154-1/2"
16-427-5	137"	16,800	190-15/16"	103"	148-1/2"	136-1/2"	16"	120"	14"	55"	180-3/8"	84"	85-11/16"	154-1/2"
16-512-6	137"	17,100	206-1/4"	103"	148-1/2"	136-1/2"	16"	120"	16"	62"	194-3/4"	84"	86-11/16"	154-1/2"
17-385-4	145-1/2"	18,600	182-5/16"	107"	157"	145"	16"	128"	15"	50"	171-1/4"	88-1/4"	87-1/2"	163"
17-481-5	145-1/2"	19,100	198-7/16"	107"	157"	145"	18"	128"	16"	58"	188-7/8"	88-1/4"	89-3/4"	163"
17-577-6	145-1/2"	19,600	214-11/16"	107"	157"	145"	18"	128"	18"	62"	202-1/8"	88-1/4"	90-7/16"	163"
18-431-4	154"	21,100	185-5/16"	110"	165-1/2"	153-1/2"	18"	130"	16"	54"	177-3/4"	92-1/2"	95"	171-1/2"
18-539-5	154"	21,600	201-7/16"	110"	165-1/2"	153-1/2"	18"	130"	16"	60"	189-7/8"	92-1/2"	96-5/8"	171-1/2"
18-647-6	154"	22,100	213-11/16"	110"	165-1/2"	153-1/2"	18"	130"	18"	62"	201-1/8"	92-1/2"	97-1/16"	171-1/2"
19-480-4	162-1/2"	22,600	189-5/16"	114"	174"	162"	18"	144"	18"	58"	177-3/4"	98-3/4"	99-3/8"	180"
19-600-6	162-1/2"	23,100	208-3/16"	114"	174"	162"	18"	144"	18"	60"	195-5/8"	98-3/4"	99-15/16"	180"
19-720-6	162-1/2"	23,600	222-3/16"	114"	174"	162"	18"	144"	20"	62"	208-5/8"	98-3/4"	100-7/16"	180"
20-531-4	171"	24,100	199-5/16"	118"	182-1/2"	170-1/2"	20"	150"	20"	58"	185-3/4"	101"	102-1/2"	188-1/2"
20-646-5	171"	24,600	212-3/16"	118"	182-1/2"	170-1/2"	20"	150"	22"	60"	197-5/8"	101"	103-1/8"	188-1/2"
20-798-6	171"	25,100	224-3/16"	118"	182-1/2"	170-1/2"	22"	150"	22"	62"	209-5/8"	101"	103-3/4"	188-1/2"
21-585-4	179-1/2"	26,100	204-3/16"	120"	191"	179"	24"	160"	22"	60"	189-5/8"	105-1/4"	106-3/16"	197"
21-732-5	179-1/2"	26,600	214-3/16"	120"	191"	179"	24"	160"	22"	62"	199-5/8"	105-1/4"	106-7/8"	197"
21-880-6	179-1/2"	27,100	230-3/16"	120"	191"	179"	24"	160"	22"	62"	215-5/8"	105-1/4"	106-7/8"	197"


# Continue the conversation.


You already know this isn't an off the shelf counterflow cooler. Every system is engineered around your material and your process, with support that doesn't end at install. This is the next step.



Building equipment  
that work as hard as  
you do.



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