

# SPECIFICATIONS & CAPACITIES

MODELS	F320	F320x	F480	F480x	F660	F660x
Dryer Holding Volume, bu (m <sup>3</sup> )	906 (31.9)	1,248 (44.0)	1,355 (47.7)	1,866 (65.8)	1,866 (65.8)	2,549 (89.8)
Additional Holding - Gravity Fill / Level Auger, bu (m <sup>3</sup> )	227 / 215 (8.0 / 7.6)	227 / 215 (8.0 / 7.6)	404 / 321 (14.2 / 11.3)	404 / 321 (14.2 / 11.3)	404 / 321 (14.2 / 11.3)	404 / 321 (14.2 / 11.3)
Total Holding - Gravity Fill / Level Auger, bu (m <sup>3</sup> )	1,133 / 1,121 (39.9 / 39.5)	1,475 / 1,463 (52.0 / 51.5)	1,758 / 1,676 (62.0 / 59.1)	2,270 / 2,188 (80.0 / 77.1)	2,270 / 2,188 (80.0 / 77.1)	2,952 / 2,870 (104.0 / 101.1)
Tier Length, (m)	16'-0" (4.9)	16'-0" (4.9)	24'-0" (7.3)	24'-0" (7.3)	24'-0" (7.3)	24'-0" (7.3)
<i>top of dryer</i> Fan Arrangement & Motor Size, HP (kW) <i>bottom of dryer</i>	2 x 7.5 (5.6) 5 (3.7)	5 (3.7) 2 x 7.5 (5.6) 5 (3.7)	2 x 10 (7.5) 7.5 (5.6)	7.5 (5.6) 2 x 10 (7.5) 7.5 (5.6)	2 x 15 (11.2) 10 (7.5)	10 (7.5) 2 x 15 (11.2) 10 (7.5)
Number of Tiers	8	11	8	11	11	15
Expansion Option	(1) 3-Tier Module	N/A	(1) 3-Tier Module	N/A	(1) 4-Tier Module	N/A
Number of Modules / Plenums	3	4	3	4	3	4
Fill Height - Gravity Fill / Level Auger, (m) <sup>1</sup>	27'-10" / 25'-5" (8.5 / 7.7)	33'-10" / 31'-5" (10.3 / 9.6)	30'-10" / 25'-5" (9.4 / 7.7)	36'-10" / 31'-5" (11.2 / 9.6)	36'-10" / 31'-5" (11.2 / 9.6)	44'-10" / 39'-5" (13.7 / 12.0)

ALL-HEAT MODE	F320	F320x	F480	F480x	F660	F660x
Avg / Max Burner Operating, MMBTU/hr (kW thermal) <sup>2,6</sup>	5.9 / 7.9 (1,742 / 2,323)	8.3 / 11.0 (2,420 / 3,227)	8.9 / 11.9 (2,614 / 3,485)	12.2 / 16.3 (3,582 / 4,776)	12.6 / 16.7 (3,679 / 4,905)	17.2 / 22.9 (5,034 / 6,712)
Drying Capacity, Shelled Corn, 20%-15% <sup>3,4,5,6</sup> wet bu/hr (metric tonnes/hr) dry bu/hr (metric tonnes/hr)	up to 1,005 (24.9) 965 (23.0)	up to 1,365 (33.8) 1,315 (31.4)	up to 1,510 (37.4) 1,455 (34.7)	up to 2,035 (50.4) 1,960 (46.8)	up to 2,035 (50.4) 1,960 (46.8)	up to 2,760 (68.3) 2,660 (63.5)
Drying Capacity, Shelled Corn, 25%-15% <sup>3,4,5,6</sup> wet bu/hr (metric tonnes/hr) dry bu/hr (metric tonnes/hr)	up to 515 (13.6) 465 (11.1)	up to 705 (18.6) 640 (15.3)	up to 775 (20.5) 700 (16.7)	up to 1,050 (27.7) 950 (22.7)	up to 1,050 (27.7) 950 (22.7)	up to 1,430 (37.8) 1,295 (30.9)

HEAT + COOL MODE	F320	F320x	F480	F480x	F660	F660x
Avg / Max Burner Operating, MMBTU/hr (kW thermal) <sup>2,6</sup>	4.1 / 5.5 (1,210 / 1,613)	6.4 / 8.6 (1,888 / 2,517)	6.1 / 8.1 (1,791 / 2,388)	9.4 / 12.6 (2,759 / 3,679)	8.6 / 11.5 (2,517 / 3,356)	13.2 / 17.6 (3,872 / 5,163)
Drying Capacity, Shelled Corn, 20%-15% <sup>3,5,6</sup> wet bu/hr (metric tonnes/hr) dry bu/hr (metric tonnes/hr)	up to 605 (15.0) 570 (13.3)	up to 870 (21.5) 815 (19.0)	up to 910 (22.5) 855 (19.9)	up to 1,295 (32.1) 1,215 (28.3)	up to 1,230 (30.5) 1,155 (26.9)	up to 1,750 (43.3) 1,650 (38.4)
Drying Capacity, Shelled Corn, 25%-15% <sup>3,5,6</sup> wet bu/hr (metric tonnes/hr) dry bu/hr (metric tonnes/hr)	up to 370 (9.8) 330 (7.7)	up to 540 (14.3) 475 (11.1)	up to 555 (14.7) 490 (11.4)	up to 800 (21.1) 710 (16.5)	up to 755 (19.9) 665 (15.5)	up to 1,090 (28.8) 960 (22.4)

<sup>1</sup> Add 24" (.61m) for a 24" dryer stand set, 36" (.92m) for a 36" dryer stand set, or 48" (1.22m) for a 48" dryer stand set.  
<sup>2</sup> Operating burner capacities are based on a 150 deg F (83 deg C) temperature rise for average and 200 deg F (111 deg C) temperature rise for maximum.  
<sup>3</sup> Based on 240 deg F (116 deg C) plenum temperature for heat + cool operation, and 240 deg F (116 deg C) top plenum(s) temperature / 180 deg F (82 deg C) bottom plenum temperature for all-heat operation.  
<sup>4</sup> Based on discharging grain from the dryer at 17.0% moisture.  
<sup>5</sup> Capacities in metric tonnes/hr are based on a grain bulk density of: 749 kg/m<sup>3</sup> (wet @ 25% moisture), 703 kg/m<sup>3</sup> (wet @ 20% moisture), 677 kg/m<sup>3</sup> (dry @ 17% moisture), 661 kg/m<sup>3</sup> (dry @ 15% moisture).  
<sup>6</sup> The information contained herein is intended to assist our customers in selecting the grain drying system that they believe best meets their unique preferences and needs. The performance figures and capacities presented in this document are only estimates, based on calculated simulations, and do not constitute express or implied warranties. Many factors influence the grain drying process, including ambient temperature, relative humidity, grain variety, grain quality, grain temperature, dryer operating temperatures, dryer add-ons and accessories, and dryer condition, maintenance and operation.



At Mathews Company, we continuously strive to improve our products. Accordingly, changes may occur that are not reflected in the specifications and capacities contained in this brochure.



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*Grain Site Specialists*



# FUSION SERIES

with SmartFlow™ technology

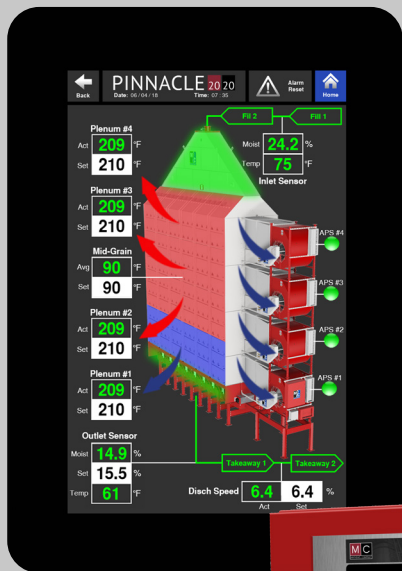
The **MISSION** of Mathews Company is to design and build innovative, high-quality equipment by way of engineering excellence and world class manufacturing. Our goal is building relationships that last with our dealers, customers, and employees.

## PINNACLE 20|20

### CONTROL SYSTEM

Experience the ease of available dual touch screens with Pinnacle 20|20

- PLC-Based Dryer Control System
- Dual 10" (25.4 cm) HD Touchscreens
- Easy User Interface
- 24 VDC Control Safety Circuit



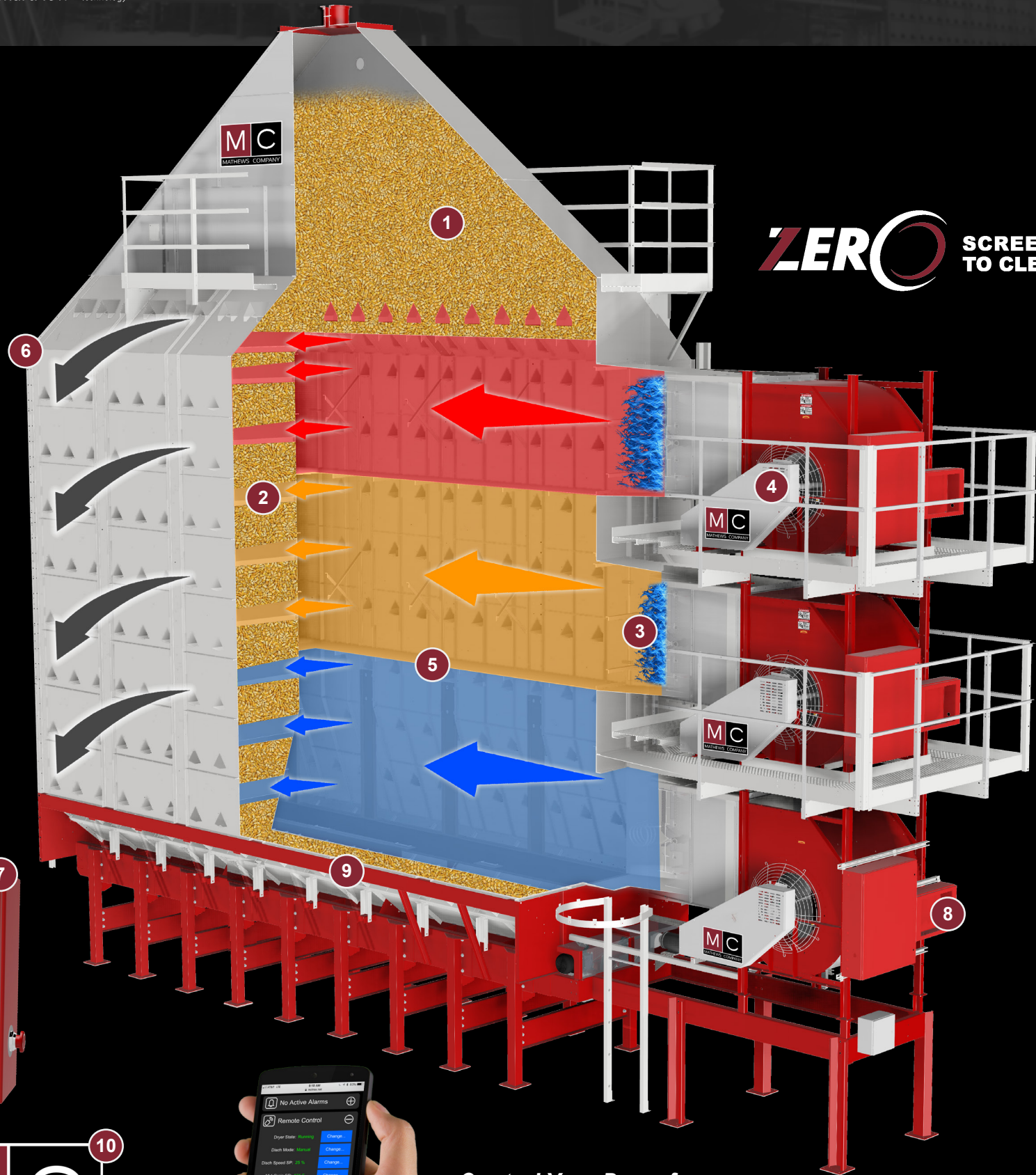
### Quick Glance

- Easier to Navigate
- Bright, Easy to See Graphics
- All Dryer Controls Are Within 2 Screen Taps
- Built-In Backup
- Better Diagnostics



Control Your Dryer from Anywhere in the World!

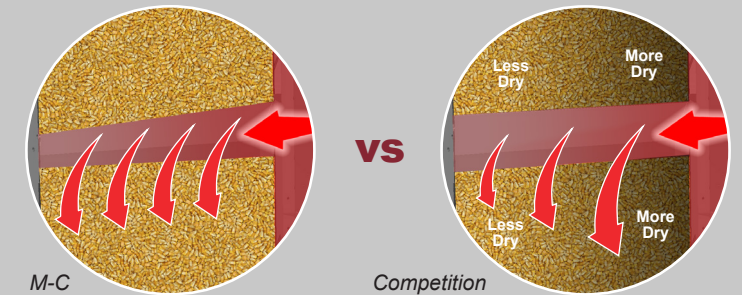
model F480 pictured above (operating in heat + cool mode)



## ZERO SCREENS TO CLEAN

## Features

- Wet holding hopper** with gravity fill (level auger is available as an option) features pre-heating ducts to warm incoming grain before it enters the heat chamber leading to increased drying capacity.
- SmartFlow™ technology** is an M-C exclusive design which utilizes a tapered duct to evenly distribute drying air across the grain column resulting in the highest quality grain and maximum drying capacity.



- Proprietary M-C burners** featuring high efficiency operation with stainless steel and cast aluminum construction, monitored by (optional) commercial-grade Fireye™ flame controller(s).
- Quiet drying** with centrifugal fans featuring double-wheel & double-inlet belt-driven construction ensures reduced noise and guaranteed airflow.
- Flexible drying options** achieved through multiple plenums that can be independently temperature controlled.
- Future growth** is possible with an easy-to-expand design allowing for an additional plenum to be added (on select models).
- Pinnacle 20|20**, the standard dryer control system on all M-C dryers, features an intuitive, 10" (25.4cm) HD touchscreen for ultimate control, customization and usability.
- AccuDry™ moisture-based control** is an available option featuring DryerMaster™ technology which measures incoming and discharged grain moisture to control the discharge rate of the dryer, ensuring precise and uniform grain moisture.
- 10" u-trough unload auger** with ultra-convenient quick release door at the bottom of the dryer. A drag conveyor unload is available as an option.
- M-C Trax**, the industry-leading remote control application developed by M-C, allows operators to remain in front of their dryer at all times, from anywhere in the world!