



David
Manufacturing Co.

Stir-Ators

MAKING PRODUCTS AS RELIABLE AS THE PEOPLE WHO USE THEM.

Efficient

Reliable

Accurate



Design III & Red Giant

Stir-Ators

Design III & Red Giant

WHY CHOOSE A DMC STIR-ATOR?

Only DMC's Stir-Ator single, double, or triple auger machines give you the most thorough, systematic, time tested stirring pattern you can buy. Choose a DMC Stir-Ator with one, two, or three augers to fit 18 to 48 foot bins. Whether purchasing a new bin or updating present storage to drying, a Stir-Ator can cut drying time by 50% in a low temperature bin. A Stir-Ator can also help store grain by being used as a management tool for grain conditioning. The Design III uses a spiral stirring pattern that stirs the entire grain mass every stirring cycle. Fifty percent (50%) of the grain in a bin is in the outside 1/3 of the bin. The DMC Design III provides the ONLY stirring pattern that allows the augers to spend more time stirring the outside of the bin rather than the center of the bin. The Design III also moves the outside auger closer to the bin wall than competitors' machines. (See Option 5.)

Triple Auger Stir-Ator ▲
Triple Auger Stir-Ator Close-Up ►
Double Auger Stir-Ator ►►



BATCH SYSTEM

A Design III Stir-Ator turns any drying bin into a self-contained drying and storage system. With a Stir-Ator in your bin, you have wet holding, drying, and storage all in the same unit. The bin can be filled with the Stir-Ator running to stir the grain and insure that the maximum amount of drying air can be pushed through the grain to increase



drying capacity. A complete bin full of grain can be dried in one filling with this method. While this method is not the fastest, it is efficient and maintains some of the highest grain quality of all drying systems. A Stir-Ator decreases static pressure by fluffing or loosening grain to allow maximum airflow. Grain is mixed so it dries faster, thus avoiding the problem of over drying bottom layers of grain while the top layers are still wet. When all the grain is dry, a Design III Stir-Ator equipped bin can be used for storage. Periodic running of a Stir-Ator (with or without aeration) helps prevent grain spoilage and damage when storing grain over a long period of time.

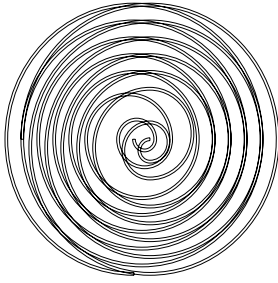
◀ Double Auger Stir-Ator Loosening Grain.

CONTINUOUS-FLOW SYSTEM

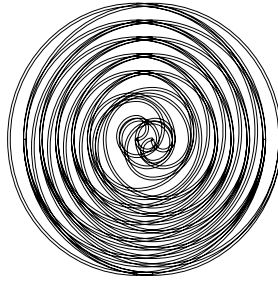
A Stir-Ator works well with an in-bin continuous-flow system to increase drying capacity. The dry grain is continuously removed from the bottom of the bin as it dries. The stirring augers should be cut off 30 inches above the floor to avoid disturbing the drying front. The grain above this zone (grain depths of up to 16 feet) is constantly being stirred, allowing greater airflow and heat to move upward through the wet grain to provide greater drying capacity and maximum efficiency.

Stirring All Grain Equally is Important

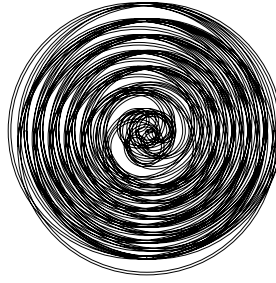
Typical stirring pattern after 3 cycles.



1 Cycle



2 Cycles



3 Cycles

STANDARD FEATURES

The Design III was engineered to require a minimum amount of maintenance and remains one of the most popular selling stirring machines ever built. The following features are STANDARD with DMC's Stir-Ators.

- 1. GRADUATED PITCH AUGERS**
Easier start ups, more flighting at bottom of auger where the most grain is stirred. More flighting to move more grain.
- 2. RUGGED DRIVE**
A 3/16" aircraft cable drives the machine, no reversing switches.
- 3. DISCONNECT BOX**
A fused disconnect box to protect motors and your investment.
- 4. AUTOMATIC SHUT-OFF**
The machine will shut down if the trolley gets in a bind position.
- 5. FUSED GEAR MOTOR**
Protects against electrical problems.
- 6. SEALED BEARINGS**
Low maintenance.
- 7. ONE MERCURY SWITCH**
DMC pioneered this feature and uses one switch to run the machine.
- 8. GEAR MOTOR RATIO**
DMC's Stir-Ators use a 9 RPM gearmotor, compared to the 1 RPM gearmotors used by most other manufacturers, making it the most aggressive machine on the market.



AVAILABLE OPTIONS

- 1. STIR-GUARD**
The Stir-Guard option protects your grain from over stirring. If for any reason the Stir-Ator does not move forward within 45 minutes, Stir-Guard shuts the Stir-Ator down.
- 2. HARD SURFACED DOWN AUGERS**
Unlike the thin strip welded hard surface offered by other manufacturers, DMC down augers feature a smooth powder surfacing compound covering the entire lifting surface.
- 3. DMC AIRTUBES**
AirTubes can prevent bin wall grain spoilage
- 4. OFFSET AUGER**
DMC's optional offset allows stirring right up against the bin wall. No other stirring machine has this option.
- 5. IN-OUT LADDER**
Since DMC Stir-Ators stir all the way to the bin wall, removal of inside attached ladders is recommended. To allow for easy entry into the bin, DMC's In-Out Ladder is available. Strong, lightweight, alloy steel tubing makes this ladder easy to use.



▲ Red Giant Stir-Ator with 4 Augers

RED GIANT

The Red Giant Stir-Ator is a 4 or 6 auger-stirring machine designed for drying bins using high heat and large airflows. The extra augers provide the additional stirring required with high drying rates. The Red Giant uses a roller chain, positive drive system to move the trolley in and out as the Stir-Ator moves around the bin to generate the familiar DMC spiral stirring pattern. The trolley is designed so the augers in the center of the bin rotate slower than the augers at the bin wall to avoid over stirring the grain in the center of the bin. The gentle stirring at the center of the bin makes the Red Giant an excellent choice for drying rice. The Stir-Guard is a standard feature on the Red Giant.



Ideal for Use in Drying and Managing the Quality of Stored Grain

CORN CHART

RICE CHART

Bin Size & Air Flow					Corn Drying Capacity (BU/24 Hrs) & Recommended Number of Augers										Bin Size & Air Flow					Rice Drying Capacity (BU/24 Hrs) & Recommended Number of Augers											
Bin Size	Fan H.P.	Drying Rate Multiplier* For More Fans		CFM for 1 Fan	Static Pressure for 1 Fan	Drying Capacity (BU/24Hrs) and Recommended Number of Stirring Augers Heat Rise Above Ambient Temperature										Bin Size	Fan H.P.	Drying Rate Multiplier* For More Fans		CFM for 1 Fan	Static Pressure for 1 Fan	Drying Capacity (BU/24Hrs) and Recommended Number of Stirring Augers Heat Rise Above Ambient Temperature									
		2 Fans	3 Fans			25'	Augers	30'	Augers	35'	Augers	40'	Augers	45'	Augers			10'	Augers			15'	Augers	20'	Augers	25'	Augers	30'	Augers		
18'	5.0	1.2	na	5,400	3.0	264	1	800	1	960	2	1344	2	1752	3	96	1	312	1	504	1	504	1	504	1						
	10.0	1.2	na	8,200	3.7	288	1	896	1	1128	2	1536	2	2016	3	96	1	312	1	528	1	528	1	528	1						
21'	5.0	1.3	na	6,900	2.5	312	1	720	2	1176	2	1632	3	2112	3	120	1	360	1	624	2	624	2	624	2						
	7.0	1.2	na	7,300	3.0	360	1	816	2	1320	2	1824	3	2376	3	120	1	364	2	672	2	672	2	672	2						
24'	10.0	1.2	na	8,000	3.4	384	1	888	2	1440	2	1992	3	2568	3	144	1	408	2	720	2	720	2	720	2						
	15.28'	1.2	na	10,500	5.2	480	1	1152	2	1896	3	2616	3	3364	3	168	1	576	2	984	2	984	2	984	2						
27'	7.0	1.2	na	8,500	2.5	408	1	936	2	1536	3	2112	3	2736	4	144	2	480	2	792	2	792	2	792	2						
	10.0	1.2	na	9,300	2.9	432	1	1032	2	1680	3	2304	3	2976	4	168	2	504	2	864	2	864	2	864	2						
30'	10C	1.5	na	11,000	3.7	504	1	1224	2	1992	3	2736	3	3552	4	216	2	696	2	1200	3	1200	3	1200	3						
	15.28'	1.2	na	12,500	4.5	576	1	1368	2	2256	3	3096	3	4032	4	216	2	696	2	1200	3	1200	3	1200	3						
33'	19C	1.4	na	12,700	4.6	600	1	1416	2	2304	3	3168	4	4128	4	240	2	744	2	1320	3	1320	3	1320	3						
	20C	1.3	na	15,400	6.2	720	2	1794	3	2794	3	3840	4	4992	4	288	2	836	3	1584	3	1584	3	1584	3						
36'	7.0	1.4	na	9,400	2.1	432	1	1032	2	1704	3	2328	3	3024	4	144	2	552	2	936	2	936	2	936	2						
	10.0	1.3	na	10,300	2.4	480	1	1128	2	1872	3	2568	3	3336	4	168	2	576	2	1032	3	1032	3	1032	3						
39'	10C	1.6	na	11,500	2.8	528	1	1272	2	2064	3	2880	3	3720	4	240	2	816	2	1368	3	1368	3	1368	3						
	15.28'	1.3	na	14,000	3.7	648	1	1536	2	2544	3	3480	4	4512	4	276	2	768	2	1320	3	1320	3	1320	3						
42'	19C	1.5	na	13,800	3.7	648	2	1512	2	2496	3	3432	4	4464	4	284	2	864	2	1488	3	1488	3	1488	3						
	20C	1.5	na	16,500	4.8	744	2	1800	3	2976	3	4080	4	5304	4	388	2	964	2	1688	3	1688	3	1688	3						
45'	30C	1.3	na	20,800	6.7	936	2	2296	3	3720	4	5112	4	6648	4	388	2	1056	3	1824	3	1824	3	1824	3						
	10.0	1.5	na	11,000	2.0	804	2	1224	2	1992	3	2790	4	3576	4	216	2	672	2	1152	3	1152	3	1152	3						
48'	10C	1.7	na	11,900	2.2	864	1	1320	2	2160	3	2976	4	3840	4	264	2	816	2	1368	3	1368	3	1368	3						
	15.28'	1.4	na	15,200	3.0	896	2	1680	2	2736	3	3792	4	4896	4	240	2	816	2	1368	3	1368	3	1368	3						
51'	19C	1.6	na	14,800	2.9	672	2	1608	3	2640	3	3624	4	4704	4	288	2	936	3	1632	3	1632	3	1632	3						
	20C	1.6	na	17,200	3.7	792	2	1896	3	3096	4	4272	4	5544	4	336	2	1152	3	1968	3	1968	3	1968	3						
54'	30C	1.5	na	21,800	5.3	984	2	2400	3	3936	4	5424	4	7056	4	408	3	1416	3	2448	4	2448	4	2448	4						
	10.0	1.5	na	11,600	1.6	904	1	1272	2	2098	3	2880	4	3744	4	216	2	744	3	1248	3	1248	3	1248	3						
57'	10C	1.8	na	12,180	1.7	876	1	1344	2	2208	3	3048	4	3936	4	240	2	864	3	1440	3	1440	3	1440	3						
	15.28'	1.5	na	16,200	2.6	744	2	1776	2	2928	3	4032	4	5232	4	240	2	840	3	1440	3	1440	3	1440	3						
60'	19C	1.6	na	15,100	2.3	696	2	1656	3	2712	3	3744	4	4872	4	288	2	1008	3	1728	3	1728	3	1728	3						
	20C	1.7	na	17,800	3.0	816	2	1944	3	3216	4	4416	4	5736	4	336	3	1176	3	2088	3	2088	3	2088	3						
63'	30C	1.6	na	22,600	4.2	1032	2	2472	3	4056	4	5592	4	7272	4	432	3	1512	3	2592	4	2592	4	2592	4						
	10C	1.8	na	12,400	1.4	776	1	1368	2	2232	3	3096	4	4008	4	216	2	792	3	1344	3	1344	3	1344	3						
66'	15.28'	1.6	na	17,000	2.2	768	2	1872	3	3072	3	4224	4	5472	4	264	2	864	3	1484	3	1484	3	1484	3						
	19C	1.7	na	15,400	1.9	696	2	1680	3	2784	4	3816	4	4968	4	312	3	1056	3	1800	3	1800	3	1800	3						
69'	30C	1.8	na	18,300	2.4	840	2	1980	3	3288	4	4536	4	5904	4	360	3	1248	3	2136	4	2136	4	2136	4						
	10C	1.7	na	23,200	3.4	1056	2	2544	3	4176	4	5784	4	7488	4	456	3	1584	3	2736	4	2736	4	2736	4						
72'	15.28'	1.7	2.1	18,100	1.5	816	2	1860	3	3264	3	4488	4	5832	4	336	3	1176	3	2040	3	2040	3	2040	3						
	19C	1.8	2.4	15,800	1.3	720	2	1752	3	2896	4	3936	4	5112	4	336	3	1194	3	1920	3	1920	3	1920	3						
75'	30C	1.8	2.5	18,900	1.6	864	2	2064	3	3408	4	4680	4	6096	4	384	3	1296	3	2256	3	2256	3	2256	3						
	10C	1.8	2.4	24,200	2.3	1104	2	2640	3	4368	4	6024	4	7908	4	480	3	1656	3	2956	4	2956	4	2956	4						
78'	40C	1.7	2.1	26,700	3.1	1344	3	3240	4	5352	5	7392	5	9576	5	576	3	2016	4	3480	4	3480	4	3480	4						
	15.28'	1.7	2.3	18,800	1.3	864	2	2064	3	3384	4	4680	4	6072	4	360	3	1248	3	2184	3	2184	3	2184	3						
81'	19C	1.9	2.6	16,100	1.0	744	2	1776	3	2904	4	4008	4	5208	4	336	3	1128	3	1968	3	1968	3	1968	3						
	20C	1.9	2.6	19,200	1.3	888	2	2112	3	3480	4	4776	4	6216	4	384	3	1344	3	2304	4	2304	4	2304	4						
84'	30C	1.8	2.5	24,800	1.7	1128	3	2712	4	4464	5	6144	5	7992	5	504	3	1728	4	2976	4	2976	4	2976	4						
	40C	1.8	2.4	30,600	2.2	1392	3	3360	4	5520	5	7608	5	9888	5	600	3	2112	4	3648	4	3648	4	3648	4						

The **CORN** charts are based on ambient air temperature of 50°F, 60% relative humidity, 16' (4.9 m) of corn, 10% moisture removal (2 points removed in cooling) (25%-17%).

The **RICE** charts are based on ambient air temperature of 80°F, 85% relative humidity, 16' (4.9 m) of rice, 7% moisture removal (19%-13%).

These charts are designed as a guide only. Fan performance will vary considerably from one manufacturer to another and other factors can change the approximate bushels per day. Choose from Stir-Ator models with one, two, or three augers to fit bins from 18' (5.5 m) to 48' (14.6 m). Each model gives you all the exclusive Stir-Ator features that can turn a simple bin into a wet-holding tank, dryer, and storage bin—all in one unit.

*All multiple fans are in parallel. Multiply drying rates x 1.6 for 5 point removal (for corn). All multiple fan static pressures (where multipliers are shown) fall within acceptable performance guidelines.



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