

(The engineering concepts behind the Follett Maestro™ icemaker.)

Although the Maestro icemaker was not formally introduced until 2001, Follett's engineering and technical service departments began designing the new model in 1997. Their mission – to make the new icemaker environmentally friendly with R404 refrigerant, energy efficient and easy to service. But, above all, the Maestro icemaker had to be reliable, even under adverse operating conditions.

Follett did extensive field testing to prove Maestro's reliability. Over fifty machines were installed all over the country. These locations had varied ambient temperatures and water conditions. At the same time, Follett subjected eighteen icemakers to a battery of tests in our lab. These tests were designed to simulate extreme operating conditions. Machines ran without condenser fans and with blocked condensers. The machines were started again and again with frozen evaporators. Side loads were applied to the auger to stress bearings beyond normal conditions. Bearings were stripped of grease and seals and intentionally filled with water. The machines still ran constantly for over a year. The auger drive system was overloaded thousands of times. One machine had an inch of sand in the evaporator.

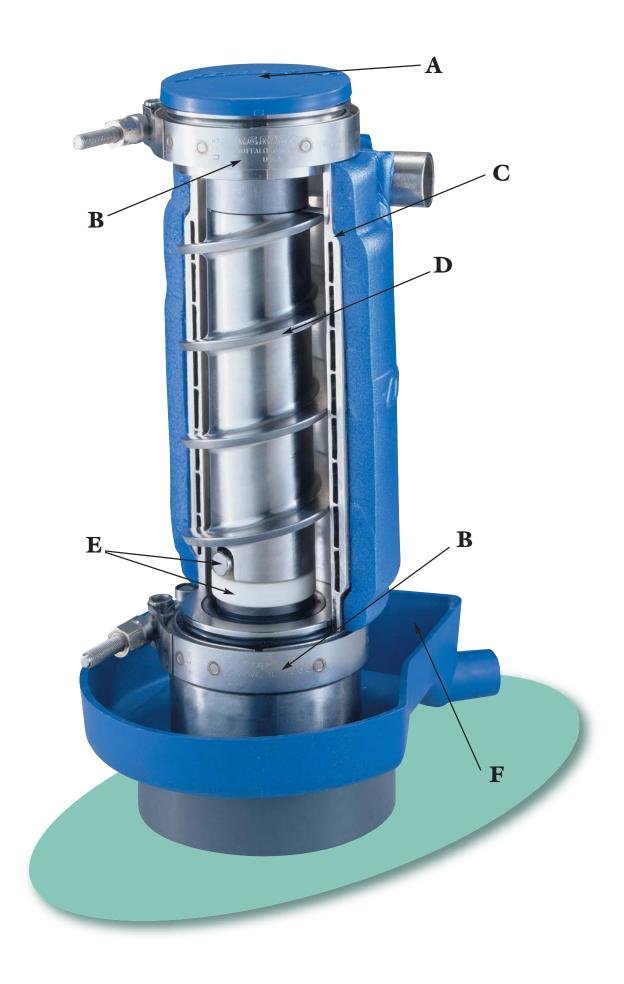
Maestro performed beyond expectations!

Only Follett uses a rust-free stainless steel top bearing for extended bearing life. The ball bearings, races and the cage are stainless steel, making them impervious to moisture and corrosion. In addition, an engineered polymeric bushing has been added to prevent radial movement of the coupling and extend the life of the seal.

You'll easily recognize a Maestro icemaker by the bright blue Follett domed cap. It keeps water from pooling on the top of the bearing assembly, preventing condensation from reaching the bearing inside.

Little details make the difference. Our v-clamp releases without removing the nut, so it is easier to service. It's sturdier too, with a stronger, hat-shaped profile to resist splitting and breaking.

The Maestro icemaker's unique jacketed evaporator is made from two pieces of precisely machined stainless steel, fit together to form an evaporator with no refrigerant tubing, solder or air gaps. This design creates an evaporator that is completely desensitized to moisture in the environment. Moisture is the enemy of conventional wrapped evaporators. When moisture is trapped between the evaporator and the refrigerant tubing, it expands and contracts to damage the solder bond, causing capacity loss. Because Maestro's thermal conduction is directly from the refrigerant to the wall of the evaporator, there is 40% less distance for heat transfer, making the evaporator more efficient. It requires up to 31% less refrigerated surface area than competitors' comparable capacity machines. Follett's manufacturing process is tightly controlled to produce consistent capacity from machine to machine.



The Maestro **auger** is the result of many months of testing to find the right flyte profile for the job. It "cuts" the ice off the inside wall of the evaporator with only 17/1000th of an inch clearance. This cutting action results in harvest loads that are only 1/3 the rated load of the gearmotor, guaranteeing longer motor and bearing life.

Follett has used tapered roller bearings (TRB) in its bottom bearings assemblies for over 20 years. TRB's are much stronger than ball bearings and can withstand the high loads generated by compressed nugget machines. Our bottom bearing assemblies are sealed for life. If they need to be replaced, they disassemble as a unit from the auger in seconds. We've added a new twist with Maestro – a large male coupling with a drive pin and ceramic mating ring. This design will not permit water to reach the bottom bearing and the auger to touch the mating ring. The result is a better seal with a longer bearing life.

Our bright blue plastic drain pan has an oversize drain port to ensure steady draining without overflow. It collects and drains the mineral-laden water squeezed out of the ice by the compression nozzle – there's no self-flushing required. Easy to clean? You bet! Just squeeze the flexible plastic and scale deposits flake off. A quick vacuum and you're done!

The high-pressure cutout switch (not shown) protects the machine in the event of fan motor failure or water loss to a water-cooled condenser.

Our new corrosion-proof gearbox and motor (not shown) has a stainless steel mounting base. It is completely sealed to eliminate oil leaks. The new motor uses a start relay instead of a centrifugal switch. The start relay is more reliable. It is located under the motor cover for easy service access.

Maestro's patented compression nozzle (not shown) produces longer lasting nuggets. Mineral-laden water is drained from the compressed ice. Eliminating impurities produces better tasting, clearer ice.

The float bracket (not shown) is another well-engineered detail. The drain hose clip allows easy draining of the float reservoir for cleaning.

The PC board (not shown) is easy to read. Colored signal lights tell you at a glance the status of the machine. To protect the icemaker from catastrophic failure we've included two-stage torque-limiting protection. If the PC board senses an elevated gearmotor torque it will shut off for 20 minutes. Then it automatically restarts. If a second elevated torque situation occurs within 60 minutes the icemaker will shut off and must be manually restarted. The PC board will also sense a low water situation and shut off the machine.

The Maestro icemaker contains service-friendly, environmentally responsible R404 refrigerant (not shown).

Maestro ... Reliable, Easy to Maintain

Air-cooled icemaker capacity/24 hrs. Ambient Air Temperature °F/°C

Inlet Water Temperature °F/°C	F	60	70	80	90	100			
	С	16	21	27	32	38			
	50	510	454	397	335	273	lbs.		
	10	232	206	180	152	124	kg.		
	60	482	435	389	329	270	lbs.		
	16	219	198	177	150	123	kg.		
	70	454	417	380	323	266	lbs.		
	21	206	190	173	147	121	kg.		
	80	424	385	347	297	247	lbs.		
	27	193	175	158	135	112	kg.		
	90	394	354	313	270	227	lbs.		
	32	179	161	142	123	103	kg.		

Water-cooled icemaker capacity/24 hrs. Ambient Air Temperature °F/°C

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Inlet Water Temperature °F/°C	F	60	70	80	90	100	
	С	16	21	27	32	38	
	50	475	470	465	460	450	lbs.
	10	215	213	211	209	204	kg.
	60	445	435	430	420	415	lbs.
	16	202	197	195	191	188	kg.
	70	415	410	400	390	380	lbs.
	21	188	186	181	177	172	kg.
	80	390	380	370	360	350	lbs.
	27	177	172	168	163	159	kg.
	90	370	360	350	340	325	lbs.
	32	168	163	159	154	147	kg.

Maestro is modular* – you can remove it from the dispenser for cleaning or service. Keep a spare machine on hand to eliminate downtime completely.

The Maestro icemaker sanitizes with common household bleach and water – no expensive special sanitizing solutions to buy.

Maestro is backwardly compatible with existing Follett dispensers. An accessory kit lets you install the new, more compact icemaker in older equipment.

^{*}except 12Cl400A and 12Hl400A

Follett's Unique Single Icemaker Concept

