

EVOLUTION OF THE ZAMBONI® ICE RESURFACER



MODEL A

1949

In March of 1942, Frank bought a tractor and started experimenting. His first attempt – a machine built onto a sled towed behind a tractor – neither smoothed the surface nor picked up the “snow” adequately. However, Frank had another idea, and in 1947 he took a different approach: a self-propelled machine by which one person could accomplish a complete resurfacing operation. This attempt (Prototype No. 3) had only two-wheeled drive and was unsuccessful because of lack of traction on the ice and limited snow carrying capacity. Parts from this prototype were used in building a four-wheel drive machine that would shave the ice, remove the shavings, wash and squeeze the ice, and hold snow in an elevated tank large enough to last for an entire resurfacing job. The adjustable blade was held firmly in the conditioner, thus keeping it from digging too far into the ice. By the summer of 1949, he was able to get a good sheet of ice consistently, and the “Model A Zamboni ice resurfacer” became a working reality.

The Model A introduced the “wash water” system, which washed the ice with recirculating water before applying the final coat of ice making water. Its wooden side was hinged so snow could be shoveled out or melted by overhead sprayers. Having achieved success with the invention of this machine, Frank applied for a patent and in 1953, Patent Application No. 93,478 was granted by the United States Patent and Trademark Office. Patent No. 2,642,679 was Frank’s basic and broadest patent, although it was not his first. The Model A was restored in 1998 and is on display at Paramount Iceland.



MODEL G 1962

The Model G was designed to handle large outdoor surfaces. Five Model G units were built. The machine pictured was unique as it featured seats for two operators. The Model G had a dumping snow tank and incorporated a revolutionary vertical auger conveyor system.

MODEL L 1966

This huge “one of a kind” machine was made for the refrigerated 400 meter speed skating rink built by the U.S. Olympic Committee in West Allis, Wisconsin. Besides resurfacing, it could create a snow lane to separate racing skaters on the track.

MODEL M 1970

As the Canadian market increased, a new non-dumper was designed for manufacture and was called the Model M. Introduced in 1970, it was similar in design to the JRB, but had much larger snow and water carrying capacities. The machine had a VW® air-cooled engine and hydrostatic transmission.

1962

MODEL G

MODEL L

MODEL M

1978

500 SERIES FUEL

MODEL 550 ELECTRIC



500 Series (Fuel Powered): 500, 520, 525, 526, 540, 545, 546 1978 – Present
Featuring extremely efficient low emission engines, the current 500 Series models include the Model 526 manufactured in Canada and the Model 546 manufactured in the California Zamboni facility. Four wheel drive and 50 years of proven hydrostatic performance combine to make the 500 Series the world’s most popular ice resurfacer.



Model 550 1978 – 1984
Zamboni introduced the first electric ice resurfacer at the 1960 Olympic Games in Squaw Valley, California. However, it was not until 1978 that Zamboni brought the Model 550 to life as the world’s first production electric ice resurfacing machine.

MODEL 552 1990 – Present

As battery technology evolved, Zamboni remained committed to electric powered production machines. In 1990, the Model 552 immediately set the standard for electric resurfacing equipment, demonstrating its quality and reliability. With more than 1,000 units delivered and a legendary reputation as a solid performer, the Model 552 is the world’s most popular electric ice resurfacer.



1990

MODEL 552 ELECTRIC

2010

MODEL 560 ELECTRIC

MODEL 560AC 2010 – Present

The integration of AC motors and controls and a load sensing hydraulic system increased the efficiency of this electric powered ice resurfacer. The “One-Touch™” on-dash display enables operators to monitor the resurfacing in progress and make adjustments on demand. Additional features include an automatic snow breaker and Advanced Water System (AWS™).



2014



Model 526 2014 – Present
The Model 526 is manufactured in the Canadian Zamboni factory and can be configured to accommodate gasoline, CNG or LPG. Its 2.4 L engine is slightly larger than that of the Model 546, yet is extremely efficient for a cleaner arena environment.

Model 446 2014 – Present
Manufactured in Canada, the Model 446 features a 2.4 L engine with a hydrostatic transmission, providing exceptional value for arena operators. Its slightly reduced size versus that of the 500 Series retains maximal capacities for snow and water, while allowing for a tighter turn radius for arenas and facilities with smaller ice sheets.

2016



MODEL 710

MODEL 710 2016 – Present

The Model 710 features an EU certified diesel engine, delivering robust power as well as emissions compliance. A wider blade and double the ice-making water makes swift work of big surfaces.

2018



MODEL 450 LITHIUM-ION

MODEL 450 2018 – Present

Industrial strength electric power. Introducing the high energy density of lithium-ion batteries to a proven and rugged workhorse for unbeatable electric-powered performance.

2019



MODEL 552^AC LITHIUM-ION

MODEL 552AC Lithium-ion 2019 – Present

As battery technology continues to evolve, the Model 552AC was ready for its lithium-ion makeover. Sealed maintenance-free batteries and quick charging capabilities are a game-changer for busy arenas looking for truly emission-free electric equipment.

1950

MODEL B



Model B 1950 – 1952
The Model B featured a Jeep® vehicle chassis. There were four Model B machines produced and they included units for the Ice Capades® and Sonja Henie Ice Revue Shows. Model B No. 4 is currently on display at the United States Hockey Hall of Fame.

1952

MODEL C

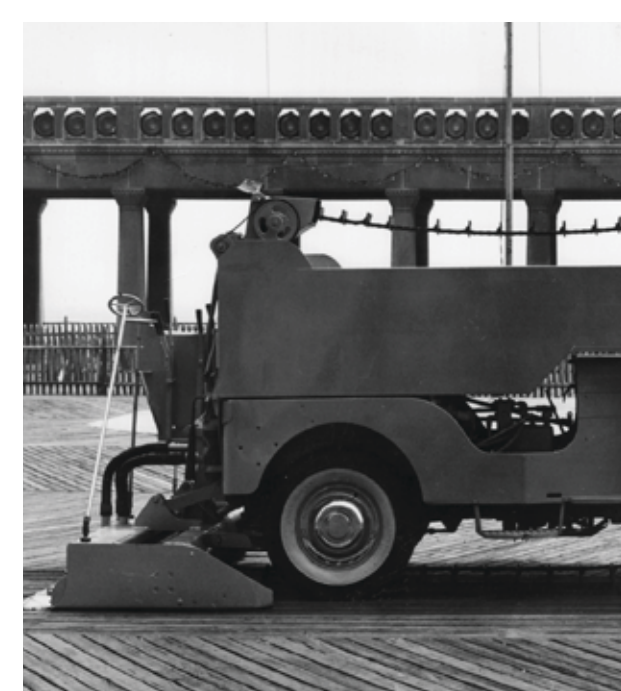


Model C 1952 – 1953
The operator seat was raised for better visibility and to increase snow capacity. An ice washing system was added to improve the finish of the ice surface.

Model D 1953 – 1954
Each of the first thirteen machines built varied somewhat from the previous units as Frank continued incorporating improvements using feedback from arena operators and industry professionals. Four Model D units were built.

1954

MODEL E



Model E 1954 – 1955
With the first standardized machine design, Frank produced twenty Model E units between 1954 and 1955. Word had begun to spread that Frank’s machine was able to produce a superior sheet of ice in a fraction of the time previously required to resurface.

1956

MODEL F



Model F 1956 – 1964
Ice skating in the late 1950’s became more popular and with growing demand, the machine was redesigned on a stripped Jeep® chassis to increase capacities. The Model F introduced a number of new features and options throughout the production of the 394 units built through 1964.

1964

HD SERIES



HD Series: HD, HDA, HDB, HDC 1964-1978
The Model HD featured Zamboni’s first all-welded tubular steel chassis, eliminating use of the Jeep® parts. Along with air-cooled engines, they featured a vertical auger snow conveyor and a quick dumping snow tank. (HDB and HDC, pictured left to right)

MODEL K



Model K 1964 – 1969
Following the introduction of the Model HD, the Model K was designed for arenas that lacked adequate height to accommodate a dumping snow tank.

JR Series: JR, JRA, JRB and JRD 1964-1982
These small machines were built for studio sized skating surfaces and their capacities were approximately half that of the standard machine.

1983

400 SERIES



400 Series: 400, 440, 445, 446 1983 – Present
With slightly smaller snow and water capacities than that of the 500 Series, the 400 Series features a compact design, and a tighter turning radius than that of the larger machines.

1985

MODEL 700



Model 700 1985 – Present
Although it has the same wheelbase and length as the 500 Series, the Model 700 is wider and taller to accommodate increased snow collection and water capacities. Ideal for large outdoor surfaces and speed skating ovals.

1987

MODEL 100



Model 100 1987 – Present
The Model 100 is designed for small studio and backyard rinks. It is pulled by a garden tractor and has about 1/10 the water and snow carrying capacity of a standard sized ice resurfacer.

1995

MODEL 200



Model 200 1995 – Present
Built to provide a quality resurfacing for a standard sized facility, the Model 200 mounts behind a farm / industrial sized tractor.

2013

MODEL 546



Model 546 2013 – Present

With an extremely efficient engine, the Model 546 offers the industry’s lowest emissions and significant fuel savings versus that of other manufacturers. Built at Zamboni’s California factory, the Model 546 features four-wheel drive and the innovative hydrostatic transmission introduced by Zamboni.

2015

MODEL 650 ELECTRIC



Model 650 2015 – Present

The clean sheet design of the Model 650 introduced an entirely new chassis configuration, capable of handling increased battery size and capacities to power additional resurfacings. The AC motors and controls virtually eliminate associated maintenance. The Model 650 retained the solid and proven conditioner and unmatched downpressure for which Zamboni is renown.

2017

MODEL 552^BC ELECTRIC



Model 552AC 2017 – Present

Building upon the solid reputation of its predecessor, the Model 552AC combines worry-free AC motors and controls with an industry-proven drivetrain, providing a low maintenance option for a high maintenance surface. A notable and distinguishing feature of the 552AC is its vertical auger housing enclosure which reduces operator area sound levels.

2018

IZO MODEL 612 ELECTRIC



IZO MODEL 712 ELECTRIC

IZO Model 612 and IZO Model 712 2018 – Present
Leading edge automation driven by design. European masterpieces loaded with technology and features normally considered optional, these machines maximize capacities and efficiencies, delivering a world-class sheet of ice.

2019



Zamboni Company celebrates 70 years 2019