

Golden Trowel® Awards for the 2017 Contest

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THREE WORLD RECORDS SET IN 2017 GOLDEN TROWEL® COMPETITION

(LAS VEGAS) Thirteen Golden Trowels® were awarded to 12 different contractors from three continents at the annual Golden Trowel® ceremony held today at the World of Concrete in Las Vegas. Three contractors from Australia and the USA produced World Record F-Numbers in their respective categories. Five contractors were first-time winners.

Presented by The Face® Companies of Norfolk, Virginia, Golden Trowels® are given annually in recognition of the flattest and most level floor slabs produced in the world.

Christman Constructors, Inc., of Livonia, MI, a first-time Golden Trowel winner, stepped into the ranks of Golden Trowel Winners in a big way, by breaking not one but two world records on their first try on a large defined-traffic (Fmin) floor.

Eldridge Concrete, of Newton Grove, NC, a second-time Golden Trowel winner, produced more than a mile of floor track and broke a world record on another large defined-traffic (Fmin) floor.

Tuss Concrete, of Gingin, Western Australia produced the third of this year's world records, in the hotly-contested Large Laser Screed (wide Bay) category, and took home a Silver trowel in the equally tough Defined Traffic category. No stranger to the Golden Trowel competition, Tuss has won six previous awards; these are his seventh and eighth awards.

Brian Birdwell of SSI was this year's winner of the "Sam" award for his exceptional accomplishments in and contributions to the art & science of high quality horizontal concrete construction.

To date, 328 Golden Trowels® have been presented to 127 different contractors since the first Golden Trowels® were awarded in 1989. Golden Trowel® Gold Plates are awarded to the winner in each category; Golden Trowel® Silver Plates recognize outstanding entries that did not win their category.

Details of all the winning entries follow.

Fmin (Defined Traffic) Awards

Fmin is quite different from FF and FL. For one thing, the Fmin Numbers are based on the *worst* part of the floor, not the average. Fmin floors are judged by their Fmin Numbers and by the number and length of the aisles. The longer the aisle, the more chances it has to fail, and of course, the greater the number of aisles, the more chances there are to fail.

Fmin floors actually have 4 different specifications to meet or achieve:

- **Fmin Longitudinal Levelness** is the fore-and aft tilt, or pitch, of the floor.
- **Fmin Longitudinal Flatness** is the rate of change of pitch angle. This could be described as the “bumpiness” of the floor.
- **Fmin Transverse Levelness** is based on the very worst side-to-side roll angle of the floor, or how far to the side it tilts at the worst case.
- **Fmin Transverse Flatness** is based on the roll rate, or the rapidity at which the roll angle changes.

First-Time Winner

Christman Constructors Livonia MI

18 aisles, 2979 linear ft. Struck off with a truss screed.

The concrete incorporated 4.5 lb per cu yard of Euclid Tuf-strand fibers

**Golden[®]
Trowel**

In Recognition of Excellence in Construction of Flat & Level Concrete Floors

Christman Constructors, Inc.

2017

F_{min}: L_{Level} 145.7 L_{Flat} 172.1 ^{World Record} T_{Level} 146.4 T_{Flat} 222.3

18 Aisles, 2979 lf • B541 Warehouse Expansion • Kalamazoo, MI

**World
Record**

FACE[®]

Second Golden Trowel award.

Eldridge Concrete Newton Grove NC

23 aisles, 5980 linear ft. This is more than a mile of floor track to measure. Struck off with a Somero S-22E

**Golden[®]
Trowel**

In Recognition of Excellence in Construction of Flat & Level Concrete Floors

Eldridge Concrete

2017

F_{min}: L_{Level} 191.1 ^{World Record} L_{Flat} 161.9 T_{Level} 146.4 T_{Flat} 163.8

23 Aisles, 5980 lf • The Lodge DC • New Hope, TN

FACE[®]

Seventh and eighth Golden Trowel awards this year
Tuss Concrete Gingin, Western Australia
15 Aisles, 1290 linear feet
Struck off with a truss screed
In any other year, this would have been a Golden Trowel.

**Golden[®]
Trowel**

In Recognition of Excellence in Construction of Flat & Level Concrete Floors

Tuss Concrete

2017

F_{min}: L_{Level} 144.3 L_{Flat} 137.0 T_{Level} 160.8 T_{Flat} 212.8

15 Aisles, 1290 lf • Perth Core Library • Perth, WA

FACE[®]

First-Time Winner of a Golden Trowel Asia award
Mitramas Pte Ltd Singapore
13 aisles, 914 linear ft. Struck off using a Copperhead XD3
These results would be great anywhere in the world, but are truly exceptional for Asia.

**Golden[®]
Trowel Asia**

In Recognition of Excellence in Construction of Flat & Level Concrete Floors

Mitramas Pte Ltd

2017

Narrow Strip • F_{min} L_{Level} 181.4 L_{Flat} 137.5 T_{Level} 105.5 T_{Flat} 95.4

w/16 kg/m³ steel fibers 13 Aisles, 278.5 linear m • MRC Global - RDC Singapore

FACE[®]

Second Golden Trowel Asia award (& have also won one Golden Trowel worldwide award)
Zacklim SRQ Concrete Floor SDN. BHD. Petaling Jaya, Selangor, Malaysia
12 aisles, 1420 linear ft. Struck off using a truss screed
A very few years ago, this floor would have won a Golden Trowel in the worldwide competition.

**Golden[®]
Trowel Asia**

In Recognition of Excellence in Construction of Flat & Level Concrete Floors

Zacklim SRQ Concrete Floor SDN. BHD.

2017

Narrow Strip • F_{min} L_{Level} 110.9 L_{Flat} 105.6 T_{Level} 115.4 T_{Flat} 114.5

12 Aisles, 433 linear m • Cosmo Scientex Port Klang, Malaysia

FACE[®]

*Second Golden Trowel award
Full-Tilt Constructors Sanford, FL
Struck off using two Somero S22-E
These would be truly exceptional numbers for any floor,
but this is incredible for a floor close to a million square feet.*

**Golden
Trowel**[®]

In Recognition of Excellence in Construction of Flat & Level Concrete Floors

Full-Tilt Constructors

2017

**Somero Laser Screed 106 ft wide • F_F 101.5 / F_L 71.7
790,000 ft² • Medline Warehouse • Auburndale, FL**

FACE[®]

*First-Time Winner
Concrete Strategies LLC St. Louis MO
Struck off with a Somero S-22E
This would have beaten the world record in 2007 for floors over 500,000 sf.*

**Golden
Trowel**[®]

In Recognition of Excellence in Construction of Flat & Level Concrete Floors

Concrete Strategies LLC

2017

**Somero Laser Screed 120 ft wide • F_F 92.5 / F_L 62.0
765,000 ft² • Inland Port 8 • Edgerton, KS**

FACE[®]

*Seventh and eighth Golden Trowel awards this year
Tuss Concrete Gingin, Western Australia
Struck off with a Somero SXP-D Laser Screed
79 ft. wide, 106,000 sf.
Somewhat smaller than the floors listed above but with record-breaking FL Numbers and overall F-Numbers*

**Golden
Trowel**[®]

In Recognition of Excellence in Construction of Flat & Level Concrete Floors

Tuss Concrete

2017

**Somero Laser Screed 24 m wide • F_F 111.9 / F_L 91.1 World Record FL & Overall
9,848 m² • Bunnings Cannington • Cannington, WA**

FACE[®]

First-Time Winner

Precision Concrete Construction Inc. Alpharetta GA

Struck off with a 16' Hand Screed

It is rare these days for any commercial or industrial floor to be struck off by hand.

This is the second-highest FF Number ever recorded for an unshored elevated deck this size.

**Golden[®]
Trowel**

In Recognition of Excellence in Construction of Flat & Level Concrete Floors

Precision Concrete Construction Inc.

Unshored Large Slab on Metal Deck • F_F 54.22

133,000 ft² • FRC-2 Facebook Data Center • Forest City, NC

2017

FACE[®]

First-Time Winner of a Golden Trowel Asia award

B.S.Y. Construction Co., Ltd. Bangkok, Thailand

Slabs built on piles are quite unusual outside Asia but are apparently common in Asia.

This type construction makes it quite difficult to achieve high FF and FL Numbers.

Struck off using a Copperhead XD3

**Golden[®]
Trowel**

In Recognition of Excellence in Construction of Flat & Level Concrete Floors

Asia B.S.Y. Construction Co., Ltd.

Elevated Slab on Piles • F_F 54.4 • F_L 34.6

25920 m² • WHA MLC – B.244A Bangkok, Thailand

2017

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*First-Time Winner
BCI Concrete Backus, MN
Struck off using two Somero S485 Ride-On Screeds
The third-highest total F-Numbers ever for a full-sized ice rink*

**Golden[®]
Trowel**

In Recognition of Excellence in Construction of Flat & Level Concrete Floors

BCI Concrete

2017

**NHL Size Ice Rink over Styrofoam • F_F 80.1 / F_L 65.8
17,000 ft² • Mandan Sports Complex • Mandan, ND**

FACE[®]

*Fourth Golden Trowel award
Tri Con Haid Concrete Finishing, Ltd. St. Clements Ontario, Canada
The concrete included 1 lb/sf dry shake and was struck off using a Copperhead XD3
These are the second highest F-Numbers ever recorded for an ice rink using dry shake.*

When the ice is removed from the rink in the summer, it is not melted in place to avoid flooding. It is scraped off by the Zamboni. The dry-shake hardener prevents slab damage from the scraper blade attachment and the tire studs on the Zamboni. Another reason for the hardener is during the spring, summer and autumn, whenever there is no ice on the slab, the complex is used for multiple shows such as Home & Garden shows, Agricultural shows, Fall Fairs, etc. The forklifts used to set up and tear down these exhibits could also cause damage to the slab without the use of the hardener.

**Golden[®]
Trowel**

In Recognition of Excellence in Construction of Flat & Level Concrete Floors

Tri Con Haid Concrete Finishing, Ltd.

2017

**NHL Size Ice Rink with Dry Shake • F_F 64.7 F_L 54.0
17,000 ft² • Steve Kerr Memorial Complex • Listowel, Ontario, CA**

FACE[®]

*Fifth Golden Trowel award
D.J. Rossetti, Inc. Ballston Spa, NY
Struck off using a Somero S840 Ride-On Screed
In any other year, this award would have been a Golden Trowel, but for BCI's rink this year.*

**Golden[®]
Trowel**

In Recognition of Excellence in Construction of Flat & Level Concrete Floors

D.J. Rossetti, Inc.

2017

**NHL Size Ice Rink over styrofoam • F_F 73.6 / F_L 58.8
17,000 ft² • Target Center • Minneapolis, MN**

FACE[®]

Bryan Birdwell is a Senior Consultant in Structural Services, Incorporated, or SSI. Prior to joining SSI, he won 25 Golden Trowel Awards as a flooring contractor and is a 5-time World Record Holder for the construction of the flattest & most level concrete floors in the world. He is a member of ACI Committees 640, 117, 302, 330, 360, and 522, and is an examiner for ACI's Flatwork Finisher / Technician Certification Program. He is a frequent instructor at the World of Concrete seminars and SSI's Concrete College and has written many articles for various concrete publications. Bryan received the ACI Young Member Award in 2015 for advancing the quality construction of flat and level concrete floors, and for educating and mentoring people in construction of flat and level concrete floors. It is for exactly this reason that the Face Company is proud to award Brian with the "Sam" award, named after Sam Face, an inventor and the co-developer of some of the most important advances in concrete floor technology. Sam is best known for his role in the development of essentially all of the technology that now constitutes the world standard for the specification, measurement and control of the flatness and levelness of concrete. Bryan is eminently worthy of the "Sam" award.

The Samuel A. Face, Jr. Award

For Outstanding Accomplishments in and Contributions to
The Art & Science of High Quality Horizontal Concrete Construction

Golden[®]
Trowel

Bryan Birdwell

Awarded January 2018

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