ARDEX AMERICAS | Process and Pumping Innovation

- ARDEX Concrete Management Systems™ (ACMS™)
- ARDEX ARDIFLO™ Pumping Systems

US PATENT
# 8,857,130 B1
Process Innovation – Rough Screed

In new construction applications, ARDEX Concrete Management Systems™ (ACMS™) - US Patent 8,857,130 B1 save time and labor costs by eliminating the traditional steel trowel step in the finishing process. Using this system, the contractor will only place, consolidate, strike off and bull-float/restraighten the surface and allow the bleed-water to dissipate. Following a wet-cover or chemical cure (3 to 7 day min.) and surface brush blast, a layer of ARDEX self-leveling underlayment is installed either immediately after deflection or during interior build out. In some cases, the system can be installed first using an ARDEX Moisture Control System to allow almost immediate installation of finished flooring while mitigating any future risks resulting from moisture emissions from the slab. The resulting finish delivers a concrete substrate capable of meeting the most demanding flatness and levelness tolerances for both the flooring and other interior trades while eliminating unplanned leveling and delays.

Innovative Products for an Innovative System

ARDEX MC™ Moisture Control Systems are formulated to suppress excessive moisture vapor emissions in new or existing concrete and are especially suited to treat areas of new concrete where the construction schedule does not allow adequate drying of the concrete.

ARDEX High-Capacity Self-Leveling Underlayments are designed for the POWERFLO® High-Capacity Pump Trailer. These blends of Portland and other hydraulic cements provide the performance characteristics expected from an ARDEX product and handle the challenge of delivery through high-speed, long distance requirements.

FOR THE OWNER – ACMS™ ensures your floors will be as level as needed for your application, minimizes schedule delays for the installation of flooring and eliminates disruptions of service to reinstall failed floor coverings due to flatness or moisture issues.

FOR THE SPECIFIER – ACMS™ removes floor covering performance concerns due to deflection, floor levelness and moisture issues – all from one global manufacturer with decades of industry success – providing the ultimate peace of mind.

FOR THE GENERAL CONTRACTOR – ACMS™ ensures floors will be as level as needed for the owner’s application, minimizes schedule delays for the installation of flooring and removes floor levelness and moisture concerns from the equation.

For detailed performance parameters and installation instructions, please refer to www.ardexacms.com. Formatted specifications are available from your ARDEX Representative.
One Size Does Not Fit All – Choose the Right Delivery System

**ROVER® Rolling Barrel Cart**

The ROVER® eliminates the pains of the traditional barrel mixing and carrying process. Transportation of a three-bag batch, approximately 210 pounds, by a single installer is facilitated by the ROVER Rolling Barrel Cart that offers a precise and controlled pour. ROVER has full swivel, heavy duty caster wheels and a tilt mechanism constructed of robust steel with a compact and ergonomic design. Removable barrel sold separately.

**AMP® 200 Automatic Mixing Pump**

The AMP® 200 is a self-contained unit for mixing and pumping ARDEX materials 60 feet vertically and 200 feet horizontally at 350 PSI. The unit operates with one three-phase gear motor with a variable frequency drive system for conveying, mixing and pumping. State-of-the-art, electronic circuitries eliminate variables caused by power fluctuations. AMP features an onboard water booster pump with a cam-lock adapter and accessible shaft-in mixing tube and spray nozzle for easy cleaning. All units are reversible for operator safety.

**CUBE® Medium-Capacity Mobile Mixing Pump**

The CUBE mobile mixing pump is designed for outdoor location, eliminating freight elevators and material staging, dust, bag disposal and allowing single source for power and water. It will accept bulk super sacks of ARDEX material with a 6,000-pound bulk hopper with a bag-piercing device to provide top load capability. The CUBE has an in-line continuous mixer, rotor stator pump, on board generator and an optional crane. The CUBE is available with 7,200 pounds of pumping capacity per hour. The system also pumps 150 feet vertically and 400 feet horizontally. Patent Pending

**POWERFLO® High-Capacity Pump Trailer**

The POWERFLO® pump trailers are designed for outdoor location, eliminating freight elevators and material staging, dust, bag disposal and allowing single source for power and water. The self-contained mobile mixing and pumping giant has a silo capacity of 22,000 pounds with an articulating knuckle boom crane and remote control hydraulic hatch that make bulk loading a breeze. It pumps 150 feet vertically and 600 feet horizontally. For large footprint jobs, or when the site requires a deep fill fast, the POWERFLO is fully computerized and offers an output range up to 33,000 pounds per hour with remote controlled pump output.

For information, call your local ARDEX Sales Professional at 1-888-512-7339 or visit www.ardexardiflo.com.

ARDEX pumps are available for rent providing inventory is available.
Breakthrough Concrete Solutions

Despite concrete's durability, strength and versatility, the material's inherent properties present challenges. These challenges include curing and drying of slabs, labor-intensive placement and finishing and, for elevated concrete slabs, deflection.

In addition, specification and trade practices have built in a disparity in slab tolerance standards between Division 3 and 9, often challenging today’s fast-track construction schedules with unplanned remedial floor leveling and the associated delays, costs and lack of accountability. In response to these unavoidable challenges, ARDEX developed ARDEX Concrete Management Systems™ (ACMS™) – US Patent 8,857,130 B1. ARDEX ACMS™ proactively addresses concrete construction issues through an innovative specified finishing method for new concrete with an integrated system of moisture control and self-leveling underlayment products. ACMS is complemented by the ARDIFLO™ Systems, a range of high-technology pumping platforms that provide the ability to achieve a flat and level floor.

"Producing floors that are both level and flat after they have deflected has been my passion for more than 25 years. The ARDEX Concrete Management System is an elegant solution to this challenge. Properly installed, ARDEX Concrete Management Systems ensure the owner and the design/construction team that the in-service flatness and levelness needs of their project will be achieved. The inclusion in the system of a moisture mitigation component that permits immediate installation of moisture-sensitive floor coverings is icing on the cake."

– Eldon Tipping
 Structural Services, Inc.
 Principal

Cast-In-Place Concrete System

Deflection occurs initially between form removal and installation of reshores and again after final removal of reshores

Concrete Slab on Metal Deck

Concrete and steel deflect immediately under weight