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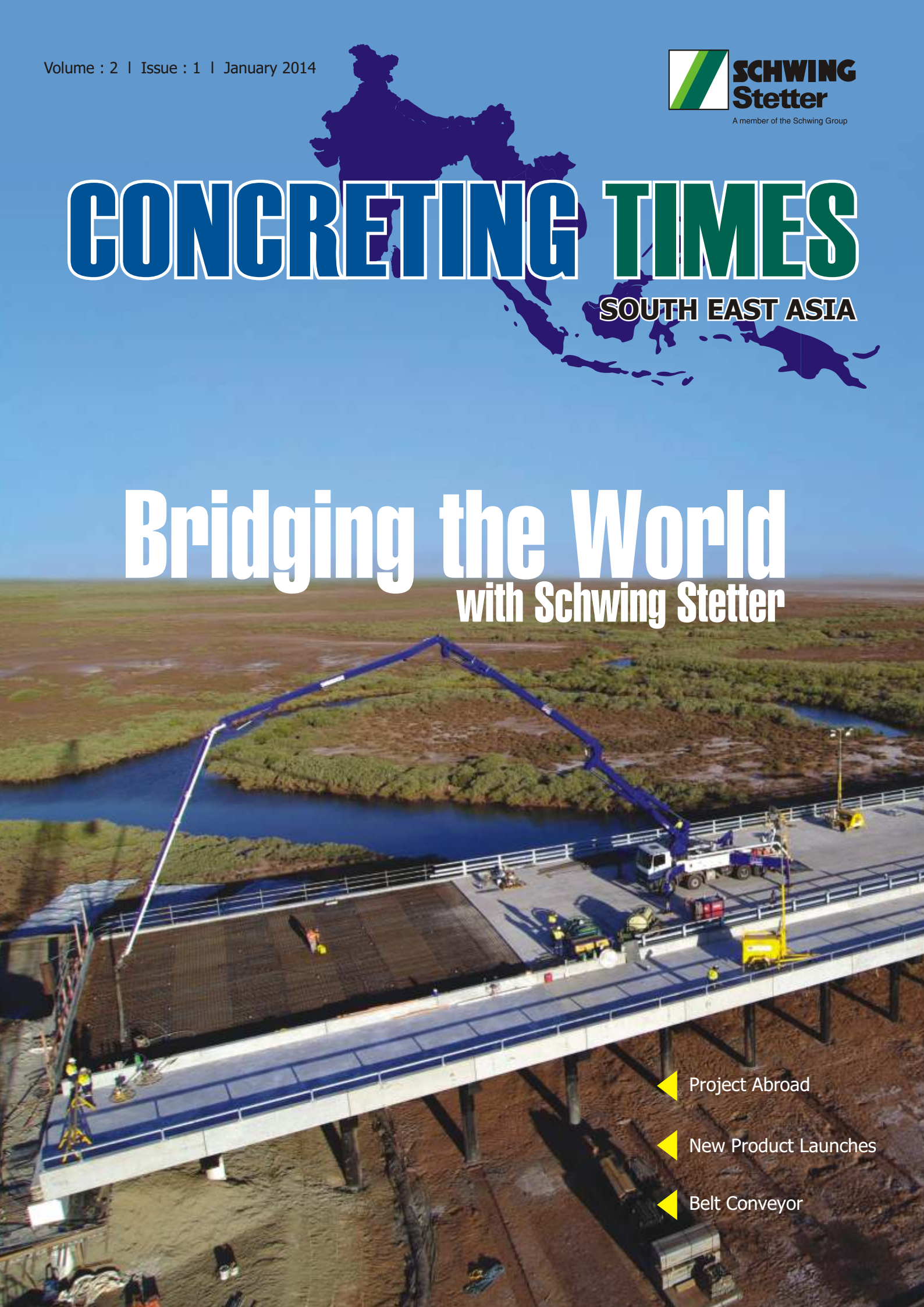
SCHWING Stetter
A member of the Schwing Group

CONCRETING TIMES

SOUTH EAST ASIA

Bridging the World
with Schwing Stetter



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Building & Infrastructure Expo 2013, Indonesia

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Elevated Bridge, Paris

Editorial

Dear Customer,

Greetings!!

The second issue of Concreting Times - SEA, is in your hands now. In this issue we would like to share with you various exhibitions we have participated in South East Asia in last few months. Cambuild at Cambodia, Building & Construction at Myanmar, Philconstruct Expo at Philippines, Construction Exhibition at Sri Lanka and Building and Infrastructure Indonesia, all were well attended by customers.

We have also covered a story on Bridges and a Report on Circle Terminus in USA under "Project Abroad".

Schwing Stetter is constantly bringing out new launches by understanding customer preference in different market. As part of these efforts we have launched Concrete Pump-SP1300, SP3000 & TSM 20.8, Batching Plants H1J, CP45, which are detailed in this issue. Please request us for the further details.

As you are aware the 41st IFAWPCA Convention, is going to be held during 2-5 March 2014 in Jakarta, we wish all our customer participating a successful event and looking forward to hear your feedback.

Happy reading!!!

With best regards,

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News

CAMBUILD 2013 at Cambodia

Schwing Stetter recently participated in third CAMBUILD 2013, Cambodia's one of the Biggest International Building, Construction and M & E Industry Show. The event was held during 10 to 12th September 2013 at Diamond Island Convention & Exhibition Centre, Phnom Penh, Cambodia. The program was endorsed by the Ministry of Commerce, Cambodia and Hosted byMinistry of Land Management Urban Planning and Construction, Cambodia Constructors Association. The event was supported by Board of Engineers Cambodia. Schwing Stetter had participated through its local agents UMG Cambodia in an indoor stall and had elicited very encouraging response from the local contractor community.

Schwing Stetter at Myanmar Exhibitions

Three Exhibitions (Building & Construction - 2013, Electric Power & Renewable Energy 2013 and Mining 2013) were held simultaneously at Myanmar Convention Centre, Yangon from 31st October to 2nd November 2013. Schwing Stetter had participated through its local agents UMG Myanmar both in their outdoor as well as in their indoor stalls. In the outdoor stall, CP18 Batching Plant and SP1800 Concrete Pump were displayed, which evoked highly enthusiastic response. The indoor stall had the posters of SSIPL equipments, which had also attracted many customers, who had come and enquired about our products.

Philconstruct Expo at Philippines

Philconstruct 2013 (November 6-9, 2013, SMX Convention Center, Pasay, Philippines), the biggest event in the Philippines, which showcases latest products and technologies in construction industry, attracts over 60,000 industry professionals every year. Schwing Stetter has been a habitual participant to this event and always makes sure that the current trend and latest in concreting has been communicated to the emerging markets. Portraying Schwing Stetter's, latest in highrise pumping solution - Separate Placing Boom (through a simulated video presentation) was of prime attraction. Latest products were displayed during the event, like Transit Mixers, Boom pumps and Stationary pumps (with the latest Rock Valve Technology).

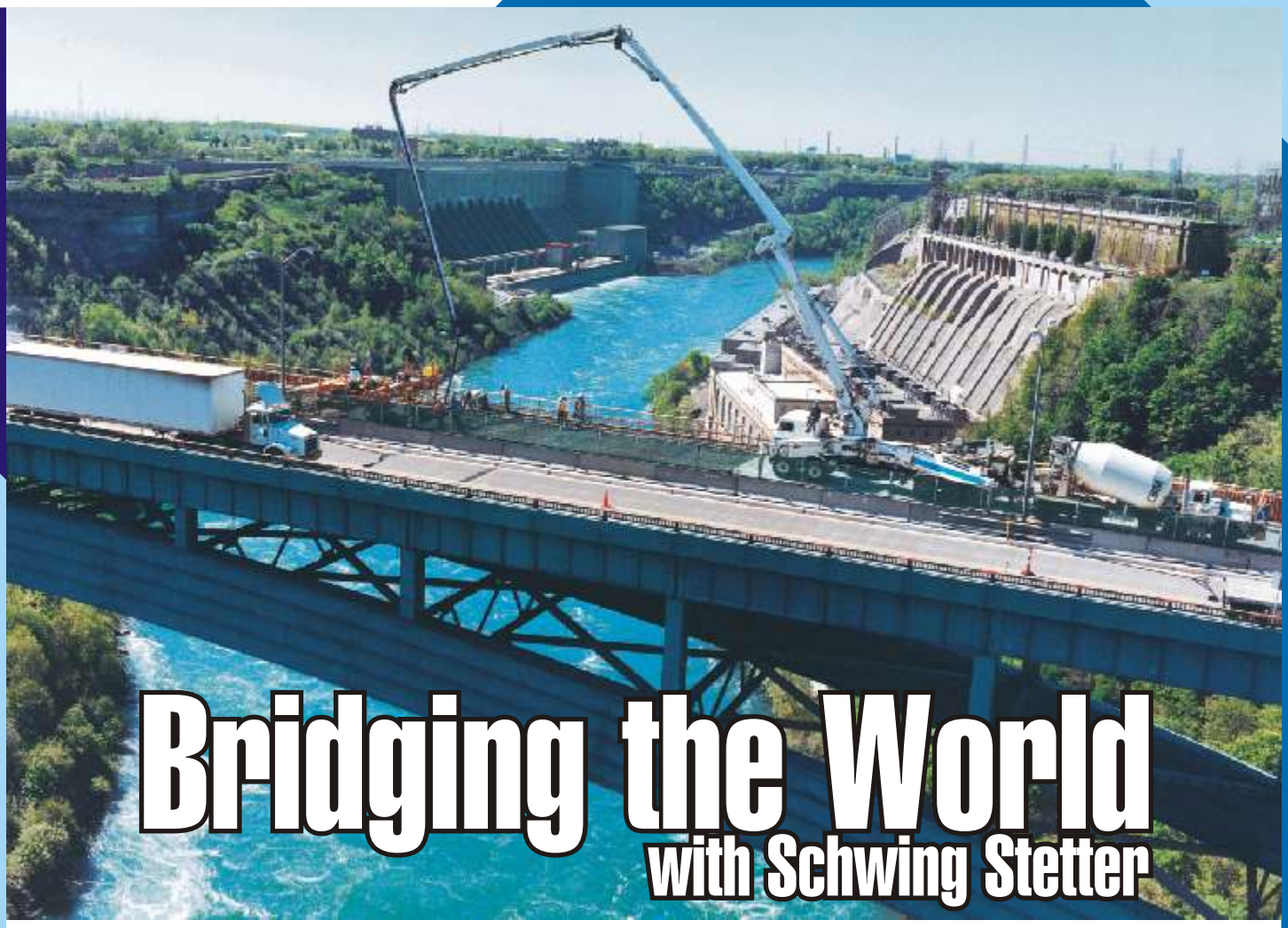
Construction Exhibition at Sri Lanka

Schwing Stetter recently participated in Construct Exhibition held during 9th to 11th August 2013 at BMICH, Colombo, Sri Lanka. The program was conducted by Construction Association of Sri Lanka. Schwing Stetter exhibited various Products like CP-18 Batching Plant, SP-1800 Concrete Pump and 6 m^3 Transit Mixer during this exhibition.

Building and Infrastructure Indonesia

Building and Infrastructure Indonesia was recently held during 4 - 7 September 2013, Jakarta International Expo Kemayoran, Jakarta – Indonesia. The event, which was organized by PT. Pamerindo Indonesia had 154 companies exhibiting their products. According to the organizers the event was attended by 6,000 visitors. Schwing Stetter had a stall in a prominent position, which was visited by many customers not only from Indonesia but also from across the world.

Cover Story



Bridging the World with Schwing Stetter

A large numbers of Bridges, Flyovers and Elevated MRTS Structures are being constructed all over the world for better and faster commuting. They also provide connectivity to different parts of the city in a country which needs fast transport system. Most of the bridge structures built across the world are being concreted by equipment of Schwing Stetter.

Bridge construction is most complicated because of unexpected difficulties faced during construction and during especially concreting. The latest trends and development in design and technology have lead to many challenges during the construction of bridges.

Challenges Faced in Bridge Concreting

The quality and reliability of the concrete is crucial to safe construction and lifespan of the bridges. To ensure the same, different ingredients of concrete has to be mixed homogenously to produce a perfect mix of concrete and has to be place in short span of time. Bridge concreting is done using concrete mix up to M80 grade and critical requirements like casting blocks need maximum strength in minimum possible time for pre-stressed or post-tension casting.

Some of the other issues and challenges in concreting of bridges are;

- Stiff consistency concrete producing
- Placing concrete girders using cranes (e.g. Metro Projects)
- Heavy crowded roads & transportation
- Laying of concrete pipes on the sea or river for concrete placement.

To overcome these concreting difficulties Schwing Stetter not only manufactures different types of advanced concreting equipment but also provide various concreting solutions to its customers.

Equipment Used

The most commonly used Schwing Stetter Equipment to place concrete for bridge projects are: Batching Plants

CP30 and M1, which provide a homogenous mix of concrete. Concrete Pumps like BP350, SP1800 and BP3500 which are designed with two valve technologies, Flat Gate Valve (FGV) and Rock Valve, which enable smooth conveying of concrete to long distances and also helps to pump stiff mixes for casting.

Transit Mixer 6m^3 is usually used to transport concrete for bridge constructions. These Transit Mixers come with modern design, simple handling and are cost effective. Separate Placing Booms - 28 meter to 42 meter and Boom Placer - 17 meter to 36 meter are used for faster completion of concrete placement. These equipments take on the challenges posted by the bridge projects.

Concreting Solutions

Our team of concrete experts looks into the depth of the problems and provides solutions to guide the customer on easy concreting. Customers call us right away to discuss the project before the commencement of construction and to find the possible concrete placing solutions for complicated projects. Our team provides the best solution which would make the most sense and would be most cost effective. We have a complete system approach, helping the customer from the beginning of the project.

Some of the concreting solutions given by Schwing Stetter are;

- Selection of equipment for batching, transporting, placing as per project requirements.
- Use of RVM's for concrete transfer from shore to off shore.
- Mounting option for Batching Plant, Transit Mixer, and Separate Placing Boom on barge and on lattice frame.
- Use of minimum space required for setting up our boom placer which is useful in traffic as well as casting yards.
- Pipeline placing and cleaning systems for cast yard, offshore and high structure application.

Bridge Project by Schwing Stetter

Schwing Stetter has contributed in many critical & landmark bridge projects across the world. The different types of bridge projects where our equipment are used are Beam or Girder type Bridges (regular), Cable Stayed Bridge, Suspension Bridges, Elevated Highway Bridge and Rail bridge for Metro & Monorail projects to name a few.

Project Abroad

Circle Terminus is a Tight Fit

The word terminus literally means boundary in Latin. It is also the name of a long term residential and retail development in Atlanta that is being completed with a three-building luxury apartment complex – Circle Terminus. With tight boundaries on all sides, the name fits this project well. Efficient concrete placement on the project is benefiting from a concrete pump recently acquired by ACPA member Cherokee Concrete Pumping headquartered in Hampton, Georgia. "We knew this project was coming up and decided the requirement of boom versatility and footprint size would require a special pump," explains, Cherokee President Wayne Bylsma, "That was one reason we chose the Schwing S 36 SX."

Concrete construction is ongoing on the three-level parking garage that will support five stories of apartments. DPR Hardin Construction of Atlanta, is the general contractor and long-time Cherokee customer. Located in the heart of the upscale Buckhead neighborhood, the project is surrounded by existing development and public roads, leaving very little room for equipment. "This is familiar ground to us," explains Bylsma, "We pumped another tower on the site with our SP 8800 several years ago." As the development nears completion, existing structures crowd the last site to be developed. "It is just so tight," according to Bylsma, "We have to reach all portions of the site from one location and not take up too much space on the street." The company's Schwing S 36 SX, with 118-feet of reach, fits the bill.

"The machine features the RZ4 4-section boom that combines the best features of two boom types, " says Cherokee operator Paul Thrasher, "It has the unfolding convenience of a Roll and Fold and it incorporates a 270-degree Z-fold tip for maneuvering into tight places. I call it the Rolling Z." The S 36 SX also features Super X outriggers that aid in setting up on the site while providing a compact, stable pumping platform. Crowding a lot of equipment onto a small site made set-up an unpredictable proposition day-to-day. "The Super X outriggers give you more choices for set-up because their curved shape telescopes out and around jobsite obstacles," states Thrasher.

Concrete placement usually occurs two times a week at Circle Terminus, with the Cherokee pump placing slabs and walls. "Sometimes we will set-up in the morning, pump 20-25 yards for a wall and move on to another project, " says Thrasher.

The S 36 SX allows Cherokee to provide this type of service. "It can be set-up in 15 minutes with this 36-meter and because it has 730-degree boom rotation, I don't have to worry about which side I will be booming off on the next job, "explains Thrasher, a 20-year veteran pump operator. He also credits the large 210-gallon water tank and fast cleanout of the Schwing Rock Valve for his ability to cover more jobs in a day. The ability of the pump to handle a variety of wall and slab mixes on the project is facilitated by the Big Rock Valve standard on all Schwing boom pump's over 31-meters. "The Big Rock has an extended valve and housing to easily keep up with the requirements of high volume pours on this project even with the harshest mixes, " according to Bylsma.

DPR Hardin project superintendent, Mike Janssen, concurs with the performance of the Schwing pump and Cherokee's service, "With 165,000 square feet of parking structure to be built, we need to stay on schedule, " Hardin states, "But with the tight conditions and mixture of large and small pours, it is a high maintenance job" The S 36 SX features the Generation 3 all-hydraulic 2025-5 pump kit with 10-inch diameter pumping cylinders operating through 79-inches of stroke.

This allows relatively slow stroking to meet volume requirements on the job. "I've never seen a smoother boom, " Thrasher says, "When I'm going flat-out on one of the large slabs the boom stays nice and steady." The versatility of the S 36 SX is aided by the RZ4 boom's design that angles the second section to one side in the travel position to minimize overall length for maneuverability in and out of the urban site. The boom straightens itself as it unfolds.

The ability of the S 36 SX to cycle on and off the Circle Terminus site was important to Cherokee's goal of satisfying the growing demand for pumping in Atlanta. "We have used it on inside pours where the unique boom configuration allows it to pour right back to the bumper and stay within the ceiling height. You don't see too many booms that can do that." Cherokee caters to all pumping needs in the Atlanta area. "The S 36 SX fulfills our need for an all-purpose pump working on commercial and residential projects, " Bylsma says.

As Circle Terminus rises above the three parking levels, Cherokee will move their boom pumps off the project to place the concrete decks for the five apartment levels. Another newly acquired Schwing pump, the SPTO 2000, will take their place performing

as a line pump on the project. With only 250 square feet required for set-up, the SPTO 2000 is only 40% of a boom pump's footprint on the cramped project. The SPTO 2000 pumpkit is powered by the truck's CAT engine and mounted on a medium-duty Freightliner chassis. With output to 118-cubic yards per hour it will meet the most demanding schedule for deck placement.

The first Circle Terminus units are expected to come online in 2014. Amenities will include a salt-water resort-style pool, rooftop terraces with dramatic skyline views, a wine bar and tavern, an extensive fitness center, a dog walk park, an art gallery and a business center.

New Product Launches

Concrete Pump SP1300

New in the class is our SP1300 a pump with a whole row of qualities and new features. SP1300 is designed to facilitate the customer needs for placing concrete at medium heights with lesser power. This concrete pump has a concrete flow of 37 m^3 perhour. and has a maximum pressure of 85 bar. It can handle maximum size of aggregate up to 30 mm.

Concrete Pump SP3000

SP3000 Concrete pump is developed with 156 bar concrete pressure which is ideal for highrise project. It gives more output and more pressure with less power consumption. This pump is capable of pumping larger quantities of concerte to greater distances, both vertical and horizontal. It helps in smooth pumping in highrise projects with reduced risk of concrete back pressure.

This pump comes with added features like Schwing Generation 3 pump kit and has open loop for better fuel efficiency. Other features includes twin circuit, dual shifting cylinder, high pressure rock valve to handle the harsh mix, lowest cost per m^3 and ease of rebuilding as the rock valve. Schwing G3 design continuously draws hydraulic oil from the tank and circulates it through the filter and high efficiency cooler. Even when the concrete pump is not engaged, this separate hydraulic circuit continues to operate for protection and performance.

Schwing G3 hydraulic system having three high flow control block is the brain for all the hydraulic system. The block incorporates the soft switch into the relief valve and the accumulator manifold into the S3 spool valve for a compact, simpler design. Multi port shifting is an important part of the twin circuit system, which uses accumulator pressure to switch the S3 valve. Faster switching of the S3 translates to smoother pumping. The S3 block and system accumulator are separated from the control block and located near the tank and hopper for easy access.

Batching Plant H1 J

The versatile horizontal batching plant which was so far available only between 1.25 to 6 m^3 is now also available in 1 m^3 per batch capacity. Being a trend setter with over 48 years of experience in Batching Plants, this plant is specifically designed to cater to different requirements of Indian Construction Industry. As a standard feature of all Schwing Stetter Batching Plants, this plant also comes with very low operating cost and a faster ROI. This plant is more flexible to customer's changing requirement and is available with conveyor feeding option. Apart from the capability of handling mix recipes for higher grade and special grade concrete, this plant is also ideal for construction projects like road, bridge and canal etc.

Shotcrete Pump TSM 20.8

TSM 20.8 is a space optimized Shotcrete Machine with 8 meter boom on Truck. Foldable 2 Section boom coupled with rotatable horizontal axis makes it versatile and easy to use in tough shotcreting jobs. Curved profile of the tunnel can be followed in single Joy stick movement on the remote control unit. This small but power boom is suitable for tunnel size starting from five meter to 16 meter.

Batching Plant CP45

CP45 plant is the result of the desire expressed by many of our existing customers to have a plant between our popular CP30 and M1. This Compact Batching Plant can be offered in compartment batcher, inline silo & star batcher versions. Like all our Batching Plants this plant also comes with standard advantages of easy erection and user friendly control system. This plant is of very high reliability and comes with a reasonable price.

CP45 is most suitable for small and medium construction companies and middle segment RMC players. This plant also finds its application in the segment where customer wants to provide high grade & high performance concrete (using micro silica, ice etc.) with medium capacity Batching Plants.

New Product Varients

Concrete pump SP1400 (Mahindra Engine)

- Modularised chassis frame with completely new looks and arrangement.
- The new chassis frame is stronger yet lighter. The revised chassis has a stronger Axle.
- The chassis is balanced so that it is easy to maneuver at site. And it exerts very small load on the towing vehicle as the height of tow hook is appropriate for most of LCVs.
- The hydraulic routing is simplified & numbers of connectors are reduced by 50%.
- The modular version can accommodate different makes of Engines like Duetz, KOEL, Mahindra and Ashok Leyland. It can also accommodate hydraulics of Rexroth, Eaton and Kawasaki make pumps.

Boom Pump S36 X

- Twin Circuit as the name implies has one Hydraulic Circuit for the Differential Cylinder and another Circuit to switch the Rock Valve.
- This helps in smooth changeover of the Rock independent of quality of the pumped concrete. The Rock and the Hydraulic Valves connected do not slam/pound but switch across smoothly.
- This results in improved wear life of Cutting Ring, Kidney Seal, Kidney Plate and Slewing Cylinder.

Separate Placing Boom SPB 25

XCMG Tower Mast

- This highly flexible Separate Placing Boom (SPB) can now be offered for improving building constructions along with XCMG Tower Crane Mast.
- This can be offered on 5 Ton, 6 Ton and 10 Ton Tower Crane Masts to help increase Production.
- The Concrete Pipeline can be routed without any modification on Tower Crane Mast.

Transit Mixer AM 7 SHC2

- We are offering naturally aspirated and well-proven Mahindra 705 DI Engine as an alternative to air cooled engine.
- This modularised engine can provide higher torque and marginally improved fuel efficiency and thereby reduced the cost of concrete.
- This engine comes with better safety features like Low Lubrication Oil Pressure, HWT and Shut off Valve. Overall noise level is expected to be lower.

Transit Mixer AM 3 SHN

- AM 3 SHN is ideal for delivery of small loads of concrete and can easily enter narrow roads and can be easily maneuvered on hilly terrain and sharp bends. It can enter city roads all day long.
- Optimised hydrostatic drive to suit 3 m^3/ 4 m^3 Transit Mixers. This is not an adopted design but hydrostatic drive designed for 3 m^3/4 m^3 Transit Mixers.
- New optimized turbo charged water cooled engine is to improve fuel efficiency and also to deliver high torque.

Cover Story

Belt Conveyor

INSTALLATION

1. Please ensure that the installation is done with necessary precautions. Measure the belt without creasing, folding or straining.
2. Care should be taken while splicing or vulcanising to ensure that the joint is made correctly & no horizontal bends are developed in the belt while making joint out of square.
3. Belt should be clean and free from oil and grease.
4. Belt and Conveyor Supports should be in proper alignment.
5. Power transmission machinery should be checked for proper alignment on assembly.

OPERATION

1. Before starting Conveyor, ensure that the Conveyor structure is firm enough to prevent vibration.
2. Before starting the Conveyor, care to be taken to see that there is no coal lumps, chips and wood or pieces of iron etc., on the carrying and return belt.
3. After confirming no load operation, feed material on the Conveyor Belt, uniformly and carefully.
4. Quantity of material feed should be controlled. If the material is fed in excess, the motor of the Conveyor will get overloaded. In addition, the material on the belt is bound to spill.
5. At the loading point, skirt boards are used to centralize material, falling off the belt. The skirts should have proper contact with the belt.
6. Proper belt tension should be maintained by the take-up,

   a) To ensure that minimum tension in the belt is sufficient to prevent undue sag between idlers. b) To transmit load.
7. When the Conveyor has to be stopped, please ensure that there is no material left on the belt.

Maintenance

The general good maintenance practice is as follows:

1. Check clearances periodically.
2. Emphasize visibility in loading and unloading sections and in control locations.
3. Confine the operation of conveyors to authorised employees only.
4. Confine repair functions to trained maintenance employees only.
5. Repair damaged belts immediately.
6. Do not permit riding or stepping on conveyor.
7. Instruct employees using conveyors on the methods of loading and unloading them and the clearances required for safe operation.
8. In general do not load mechanical equipment beyond its rated capacity.
9. Lubricate through piping where possible. Lubricate conveyor with oil of proper grade on a regular schedule with definite responsibility assigned to particular individuals for doing the work and making signed reports.
10. Use lock-outs in fuse boxes during maintenance operation and have push buttons or cord lines for emergency stops.
11. Insist on high quality heavy electrical equipments and strict adherence to electrical codes.
12. Check the oil level of gearbox every week and fill it if required.
13. Initial oil shall be replaced after two months or 1400 running hours, whichever is earlier.
14. Greasing has to be done for all bearing block every month.
15. Check all nuts and bolts of Head Pulley, Gearbox Motors regularly.
16. Don't stop Belt Conveyor until all material is unloaded.

Perfection. Beyond comparison!

S 36 X

BOOM PUMP

Made in

GERMANY

- Fuel Efficient.
- State-of-the-Art - Rock Valve Technology.
- Better Control System.
- Long Stroke Pumping Cylinders.
- High Return on Investment.
- Slewing Ring provides 720° Rotation of the Boom.
- Open Hydraulic Circuit increases the Reliability.
- One-side stability system - as an option.
- Lowest Wear and Tear Cost.
- Long service life.

Schwing Stetter is the pioneer in manufacturing of concreting equipment for the past 78 years. Quality products, strong design capabilities and the experience from developed countries during its growth phase make Schwing Stetter the preferred choice world over.

Batching Plants I Concrete Pumps I Transit Mixers I Concrete Recycling Plants I Belt Conveyors I Separate Placing Booms I Shotcrete Pumps

SCHWING STETTER (INDIA) PVT LTD

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