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SCHWING Stetter
A member of the Schwing Group

CONCRETING TIMES

SOUTH EAST ASIA

Schwing Stetter in Thermal Power Projects

CT Editorial

Dear Customer,

Greetings!!

Wish you a great business Year in 2017. We are pleased to share with you in a short span of 5 years. SCHWING Stetter India has delivered more than 2500 Machines in the export market, which would not be possible without your unstinted support to us. In this issue, we have covered projects in Philippines, Myanmar and Indonesia where our after-sales team supported the projects to achieve peak performances. We are pleased to inform our new partner M/s. PT Tunas Mega Spirit, who will be stocking parts for our esteemed customers in Indonesia. We sincerely hope that the parts availability locally will enhance our customers experience in patronizing Schwing Stetter.

Our cover story on thermal power projects is to highlight the types of machines that can be supplied by us in executing projects of such nature. We are also pleased to introduce Schwing products for non-concreting applications "Sludge Pumps" for varied industries like mineral processing, waste water management, fly ash handling etc., through this edition of concreting times –South East Asia.

During the last Bauma ConExpo India exhibition at New Delhi, SCHWING Stetter India launched slew of new equipment, out of which SP4507 for high-rise pumping fills the gap that existed in our range. Similarly, recycling plant RA20 will be an attraction for recycling concrete for Ready-mix Industry. We hope RA20 can handle spike in returned concrete with its extra capacity over his younger brother RA12. We will be participating in Construction Indonesia at Jakarta happening from September 13th – 16th, 2017 and Phil construct, Manila on November 9th – 12th, 2017. We will keep you informed about our other activities soon.

Happy reading!!!

With best regards,

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Follow us on

CT Projects in progress and Events

Lima

Malvar Batangas: This warehouse project is being constructed in Philippines by Santa Clara International Corp. Schwing Stetter India equipment in use at their project site are seven numbers of AM8FHC LH Transit mixers.

Mongkol Borey Dam Project

Kdolthahen: This dam development project is being constructed by Kumbho E & C using Schwing Stetter India equipment from United Mercury Group of Myanmar. Stationary concrete pump SP 1800 HD with concrete grades of C10, C24 and C27 are in use to pour a total concrete of 20,000 m^3.

Toll Road

East Java: This 31 km road project between Pasuruan – Probolinggo is being constructed by PT Waskita Karya (Persero) Tbk using Schwing Stetter equipment of BP 3000 concrete pump and a S36 X truck mounted concrete boom pump. Estimated concrete volume to be poured is around 380,000 m^3. Concrete grades used are K 250, K 350, K450. The deadline for this project to be completed is by June 2018.

PhilConstruct 2016

Pasay: This event took place at the World Trade Center in Pasay city, Philippines from November 10th – 13th, 2016. Stationary concrete pump SP 1400, Truck mounted concrete boom pump S36 X and AM4SHN concrete mixer were on display which was very well appreciated by the visitors. Also, Schwing Stetter India awarded the most improved SEA dealer of 2015 – 2016 to the MAN Automotive Concessionaires Corporation during the event.

New Spare Parts Stockist

Indonesia: We are pleased to announce that we have appointed PT Tunas Mega Spirit as our stockists and distributors for Spare Parts to the Indonesian market. PT Tunas Mega Spirit is a well-known organisation specialized in automotive spare parts stocking. They will be assisted by Schwing Stetter Indonesia office. In lieu of this, customers are requested to contact Schwing Stetter- Indonesia office for spare parts enquiries.

Building & Construction Exhibition

Dili: Schwing Stetter – Indonesia participated in the Building & Construction exhibition at Timor Leste recently. This was the first of its kind exhibition focusing on the infrastructure. Schwing Stetter stall received encouraging response by potential customers from private as well as the Govt sector. Mr. Constancio Da Conceicao Pinto, Minister of Commerce, Industry and Environment, Mr. Gastao de Sousa, Minister of Public Works, Transport and Communications, Hon'ble Liu Hongyang, Ambassador of China and Hon'ble Evelyn D. Austria - Garcia, Ambassador of Philippines visited the stall and appreciated our keen interest in offering latest technology products to the Timor Leste region. SCHWING Stetter also received enquiries from potential dealers and are in the process of finalising.

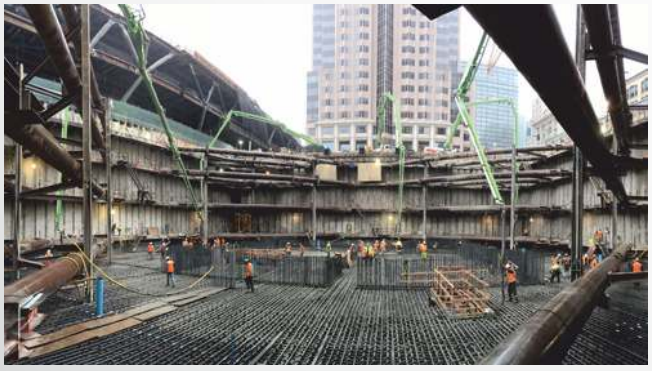
CT International Project

SalesForce Tower gets a start in San Francisco

All seven Schwing CONCO booms can be seen discharging concrete early in the pour that began at 12:00 a.m. on a Sunday morning. Conco chose 4 Schwing S 58 SX and three S 47 SX concrete pumps for the marathon pour.

In a marathon pour, the foundation for SalesForce Tower in downtown San Francisco was pumped with seven Schwing boom pumps and more than 1400 loads of concrete. The majority of the concrete was pumped in 12-hours by Conco, Concord, California, which also acted as the concrete contractor on the project. The 1,070-foot tower that will rise from the 12,000 cubic yard monolith will be the tallest occupied office building west of Chicago. While the culmination of the project will occur in 2018 when the tower is completed, the planning goes back nearly a decade.

The foundation rests on 42 deep piles that extend 265-feet down to bedrock. Prior to the epic pour, more than six-million pounds of steel were woven into a 14-foot thick reinforcement that includes 2.25 inch diameter #18 rebar. Planning for the pour was started a year ahead to coordinate two ready-mix suppliers and the Conco pumps which were set-up in a challenging urban environment. More than 1400 loads of concrete were required and routes were established to keep two mixers at every concrete pump for at least 12 hours. A 950 yard per hour goal was established for the crew of finishers and pump operators. Normal maintenance was applied to the long booms that would shoulder the continuous pumping.



Six million pounds of rebar up to 2.25-inch diameter created a 14-foot mat to reinforce the concrete monolith.

Conco chose seven Schwing boom pumps from their fleet – three S 58 SX and four S 47 SX models. All the pumps are equipped with 2525H-6 120/85 MPS pumpkits with output to

Schwing's exclusive Super X curved, telescoping front outriggers allowed seven of the long booms to fit on two sides of the excavation.

216 cubic yards per hour. Standard on these models is the Big Rock sequencing valve with extended hopper to easily manage the constant flow of ready-mix. Important to the operation is the pump's large diameter 10 inch pumping cylinders that operate through a 98-inch stroke. The slow stroking action keeps the boom stable even at maximum output which allowed the hosemen to manage the pour safely in tight quarters surrounded by finishers.

With boom reach measuring 139 feet seven inches for the S 47 SX units and 175 feet two inches for the S 58 SX, the pumps were able to be placed on just two sides of the square block excavation. The Overhead Roll and Fold design of the 4-section booms allowed operators to fully extend to the middle of the pour area and place concrete back to the edge. Also contributing to the efficient placement were the curved telescopic Super X front outriggers on all the pumps that allow set-up in confined areas. At 12:00 am, Sunday morning, the ready-mix began arriving in Cemex and Central Concrete mixer trucks. Seventy-six mixer trucks were utilized to rapidly discharge their loads and make room for waiting trucks to maintain constant pumping. A washout area near the downtown site, manned by several workers, kept truck drivers in their cabs. The early morning weekend hours were necessary to keep the trucks moving and minimize the impact on downtown San Francisco. Two major thoroughfares were closed to normal traffic during the pour. By noon, the majority of the concrete was in place and Conco was able to pull four pumps from the area. The concrete was pumped without any issues resulting in the largest continuous concrete pour in San Francisco's history. The three remaining trucks finished the pour by six p.m.

The SalesForce tower was a repeat performance as Conco participated in two of the largest pours in California's history. In April 2014, the company placed 21,200 cubic yards for a foundation that will support the Wilshire Grand, a 1,000 foot highrise being constructed in Los Angeles. Together, the two skyscrapers will not only be the tallest structures in their respective cities, but also the two tallest buildings west of the Mississippi River.

CT Cover Story

Schwing Stetter in Thermal Power Projects

M1 Batching Plant at Bhavnagar Energy Company Ltd Thermal Power project by Shapoorji Pallonji

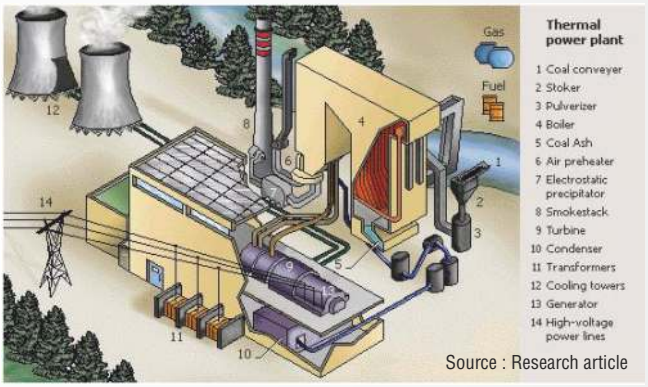
Concrete is the world's second most consumed material after water, and its widespread use is the basis for urban development. Thermal power projects are classified into Coal, Natural Gas and Nuclear power plant. Coal-based thermal power plants have been a major source of power generation in India, where 75% of the total power obtained is from coal-based thermal power plants. The coal reserve of India is about 200 billion tonnes (bt) and its annual production reaches 250 million tonnes (mt) approximately. About 70% of this is used in the power sector.

SCHWING Stetter in thermal power plants

Concreting a power plant will involve massive amount of concrete. Schwing Stetter equipment are working round the clock in producing such levels of concrete.

TATA Power Gammon CP 18 with star batcher at Mundra Power project

One of our recent project is for the company Bhavnagar energy company limited with its power project had the contractors of Shapoorji Pallonji and Paharpur cooling towers in constructing the cooling tower of 110 m height. The total concrete poured and produced in this project is around 2 lakh m^3. The concrete grades used were M10, M25, M30, M35, M40. Concreting record is 2700m^3 in 44 hours. Also, the concreting achievement is 1,500m^3 produced in one day with M1 and CP 30 batching plant.



Source : Research article

Concreting the power plant

The object of the invention of a thermal power plant is especially with a view to the production of electric power, including at least one boiler house equipped with a boiler and at least one chimney for the evacuation of the fumes produced by the boiler, characterised by the fact that the boiler house and the chimney present a common lateral wall portion and are made up of a unitary concrete structure. One way of setting up the thermal power plant, including the boiler house with a tower and a chimney. A common supporting structure consists of foundations, which support a floor slab plate. The boiler house and the chimney reveal a vertical portion with a common lateral wall.

These structures are made of concrete and constitute a continuous assembly. The tower of the boiler house, in particular, consists of a layer of reinforced concrete about

Lanco CP 18 with Chimney

20cm thick, surmounted by a belt of reinforced concrete. In this example, the tower has a cylindrical revolution shape. The concrete layer of this tower serves as a cover for the boiler house, supporting and sheltering it. The tower of the chimney as such consists of a revolution cylinder of reinforced concrete with a thickness of about 30cm.

A smoke flue is arranged concentrically inside the chimney while leaving a free space between the chimney and the flue. This flue is designed to protect the concrete of the chimney against heat stress, i.e., against the chemical attack of hot gases; the free space guarantees heat insulation and at the same time permits any possible necessary maintenance or repair work.

A version involving two cylindrical towers made of concrete and forming a continuous block, resting on the same foundations, ensures the stability of the chimney, which, if built separately, would require a conical structure with foundations and a floor slab plate of its own. This arrangement makes it possible to achieve considerable savings, especially in terms of the volume and the weight of the chimney tower and its construction cost.

For example, using cylindrical sliding coffering, which is half the cost of conical sliding coffering. Second, it facilitates savings in terms of the weight and the volume of the common foundations as well as the floor slab plate surface, which is reduced. Finally, it is possible to use the concrete cover of the boiler house in place of a shingle covering. On the other hand, it should be noted that the time to build these structures is much shorter due to the usage of cylindrical sliding coffering; this is not without significance in terms of construction time. Our recent solutions to Fly ash from power plant is our launch into sludge pump products for the very first time in India! Log on to www.schwingstetterindia.com/products

Machine	Model	Quantity
Batching plant	M1, CP 30	1,2
Concrete Mixer	AM6FHC2	16
Concrete pump	BP 350, SP 1800	4,2

SCHWING Sludge Pump System

SCHWING Stetter India with its strong presence in concrete construction equipment in India introduced an exclusive range of SCHWING Sludge Pump System, SMARTTEC at IFAT India 2016 at Bombay Exhibition Center in Mumbai. This marked the entry of SCHWING Stetter India into industrial, environmental and sewage works technology. SCHWING Sludge pump system is specially developed for industrial applications. It has fully automatic operations through remote monitoring.

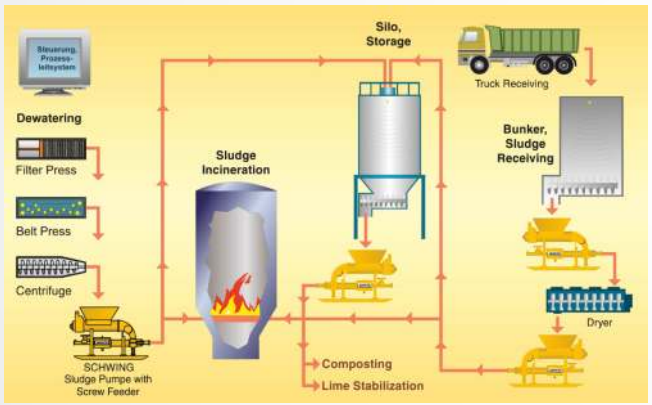
SCHWING sludge pumps are available at a standard design with a continuous electro-hydraulic adjustment of the delivery rate - which depending on the installation size range from 0.1m^3/hr to 200 m^3/hr reliable operation with pumping pressures even above 100 bars.

CT SCHWING Sludge Pump System

SCHWING is one of the leading manufacturers of hydraulically driven twin-cylinder sludge pumps (KSP) and provides turnkey solutions for the transport and storage of sludges as well as materials with a high solids content. A detailed customer oriented project planning and an effective design go hand in hand with a thorough consultation that rounds off the full scope of the competent SCHWING Team.

For the optimum results, SCHWING relies on the in-house production of all major components such as piston pumps, electric control systems, hydraulic power packs, and double screw feeders and also provides for silo technology, continuous dosing and mixing devices, pipelines and accessories.

For the optimum adaptation of the pump system to the type of sludge to be pumped, two different types of valve are available: the rock valve system (transfer tube system) and the poppet valve system (suction and pressure valves). The valve system used largely depends on the characteristics of the sludge. Both pump types have been developed and manufactured by SCHWING and display impressively high performance, efficiency and reliability.



Due to its flexibility in pump design, amongst some of our recent well-known references are for example – pumping of dewatered and dried sludge in Waste Water Treatment Plants, fly ash handling in Power Plants, Mine Backfilling and Offshore drill cuttings.

Convincing advantages of the SCHWING sludge pumping system at one glance:

1.Transportation by pipe is environment - friendly, no dust - no dirt, no odour and no noise.

2.Reliable and comes with a low hydraulic pressure. A robust design allows easy repair and maintenance.

3.Smooth switching and no backflow from one pumping cylinder to the other, thanks to the poppet valve design. This is especially important in case of compressible sludge's or high pressure heads.

4.High fatigue strength and precise switching of the transfer tube is typical for the moment-free "Rock valve".

5.Problem-free continuous operations even with high pumping pressures and large pumping distances. Running time of more than 50,000 hours of continuous operation are common. Their high availability makes it a reliable system for the operator.

The main characteristics of SCHWING sludge pumps are:

- High performance design
- Reliable and safe
- Low owning and operating costs
- Low maintenance costs

SCHWING supports its customer long after delivery and start-up. Our after sales care includes training, spares, service and projects for all your needs. For decades, plant operators have put their trust in SCHWING sludge pump systems for pumping pasty materials. Thanks to their reliability, they make an essential contribution to the operational safety of their plant, while their low-wear design keeps maintenance costs as low as possible.

Field of Applications

Waste recycling, construction industry – tunneling, cleaning applications, mining/ flyash, refineries, power plants, chemical industry, forage industry, water sludge removal, paper industry, cleaning, residues and sugar industry

CT New Launch

Heavy Duty Concrete Pump - SP 4507

Schwing Stetter India launched a Heavy duty stationary pump SP 4507 which is a new development for the present trend of high rise pumping requirement especially in growing real estate markets like India and abroad. This will cater to high rise segment where the present challenges of pumping the mix with stiff consistencies at a faster rate to around 300m vertical.

Other features

1. The pump develops 203 bar pressure on concrete and delivers an output of 54 m^3/hr in high pressure configuration.
2. The pump kit and rock valve of the SP 4507 each have their own hydraulic circuit. It helps to handle high grade mix. The full power of the pump kit will be available - regardless of the switching movements of the rock. This ensures a quiet pump behavior, high pumping capacity and protection of the components with less vibration resulting in less wear and tear.
3. The new generation 'rock' comes with high efficient energy transfer on the concrete.

Recycling Plant RA 20

Benefits of the Concrete Recycling Plant

- Environmental concern satisfying Legal authorities guidelines.(PCB)
- No waste concrete disposal costs
- Minimum payback period of capital investments from RA 20.
- Low operational costs, thanks to automatic operation
- Recycling plant can be positioned for limited space constraints in the site.
- Low replacement part costs
- Low-noise operation

Return on Investment:

Investment in installing a RA - 20 could be taken back in a couple of years through direct saving by way of

- Aggregates / Water recycling.
- Slurry water could be used in th production of concrete
- Transit Mixer Washing extends the life of spirals and minimizing the replacement costs
- Labour cost for chipping the settled concrete from Transit Mixer drum will be eliminated.