

Concrete Equipment Manufacturer – Concrete Pipe Making Machines, Cage Welding Machines, Wet Cast Mould Equipment

Follow the pursuit of
Pipemaking Excellence



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The short story ...

HawkeyePedershaab from 1915-2018

HawkeyePedershaab is the world's leading supplier of machines for concrete products.

The company holds a leading global market position and export its products to well over 90 countries around the world.

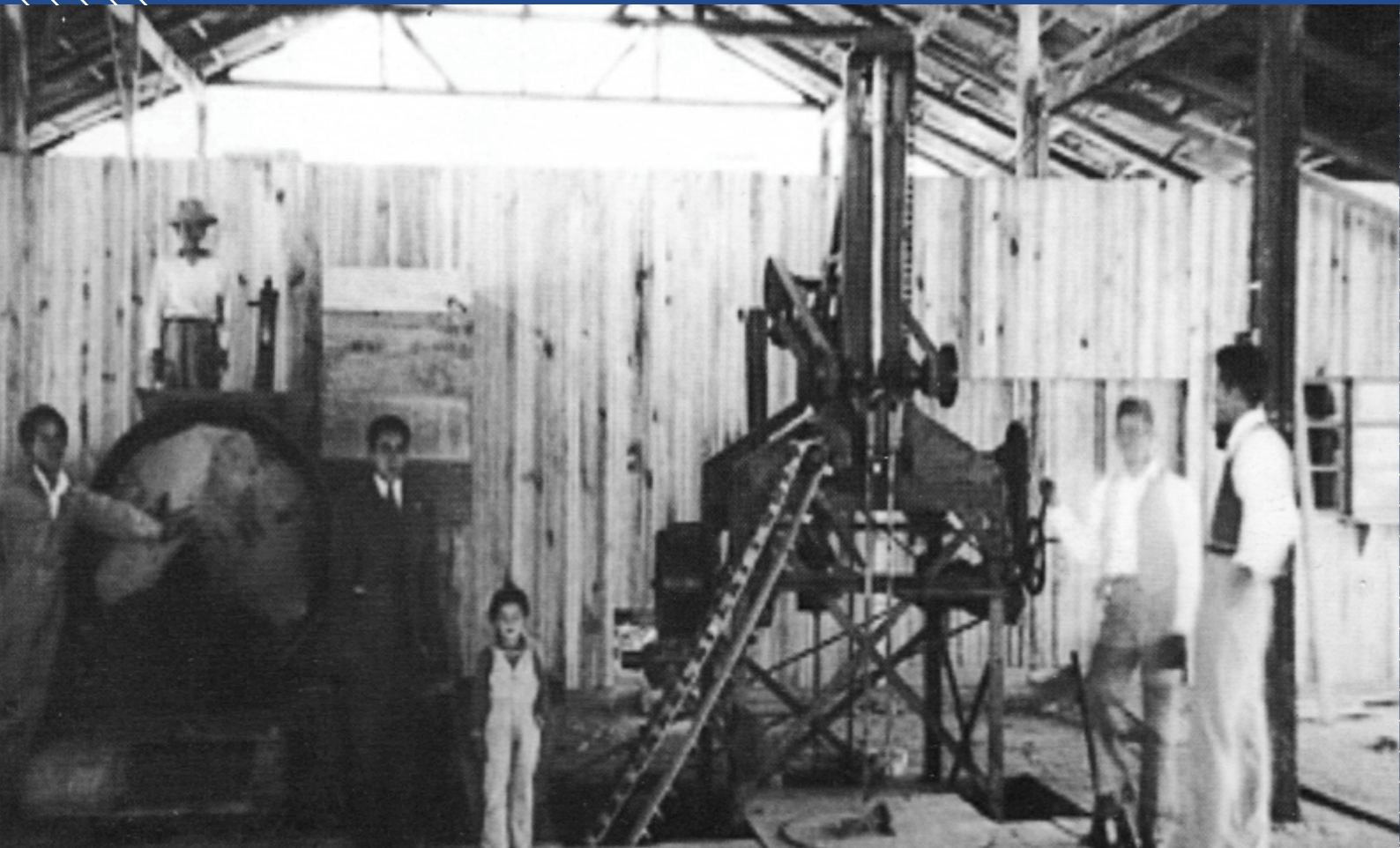
Hawkeye was found in 1949 by Hank Schmidgall to manufacture concrete pipes and blocks. The factory was located in Morning Sun, IA. Hank Schmidgall had previously worked at his father's pipe factory in Hancock, MN along with eight other siblings. In 1959 Hawkeye moved to Mediapolis, IA.

The history of Pedershaab dates back to 1877 when Blacksmith Peder Nielsen started his first company in the Northern part of Denmark. Years later, in 1915 all activities regarding the production of concrete machines were consolidated in a separate company under the name of A/S Pedershaab Cementindustri Maskinfabrik.

In 2008 Hawkeye and Pedershaab merged and joined forces under the name HawkeyePedershaab. The company has headquarters in Mediapolis, Iowa, USA and Brønderslev, Denmark.

In 2010 HawkeyePedershaab did JV with India's fastest growing concrete equipment maker Apollo Inffratech Pvt. Ltd., Gujarat and formed a JV company Apollo HawkeyePedershaab Concrete Technologies Pvt. Ltd. (India).

In 2018 HawkeyePedershaab announced the formation of Afinitas, a new parent company, which also acquired BFS Betonfertigteilesysteme GmbH, based in Blaubeuren, Germany and New Hampton Metal Fabrication Corp., New Hampton, Iowa. The company has vision of creating a global, comprehensive, customer-oriented infrastructure equipment and service platform.



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Pioneers in Concrete Pipe Machinery since 1877

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Apollo Infratech Group

Apollo Infratech Private Limited is one of India's premier infrastructure backbone companies providing international standards and global technological breakthroughs to the Indian infrastructure companies. The company's adherence to quality and capabilities for global competency is clearly reflected in its supreme products. Blending quality, innovation and technology, Apollo offers world class products and services that encompass extensive market needs and thus is positioned as a leader in the market inspiring new trends and techniques.

Apollo Infratech has a state of the art facility spread across 40,000 sq. mtrs. located at Ahmedabad-Mehsana highway Gujarat with fully functional R&D facilities to deliver innovatively designed, high quality world-class products.

Apollo's ready mix concrete solutions including ready mix concrete plants, fixed form concrete pavers are cost effective, user friendly and easy to maintain. Now with the growing distribution & dealership network across the globe, all Apollo products are backed by strong after-sales services.

Ever since its inception, Apollo has adopted a policy of providing the finest products and services to all its customers. The group's accelerated expansion and drive for optimal performance led to the formation of a multi-divisional organization structure armed with exceptional knowledge and experience in the area of high quality concrete construction equipments production. The product range has been developed with utmost attention and no effort has been spared in trying to make the products superior than the competition.

When it comes to modern infrastructure, Apollo Infratech's concrete solutions have no match in terms of quality reliably and speed.

Apart from joint venture with HawkeyePedershaab,USA, Apollo has entered into JV with Carmix, Italy for self-loading mobile mixers and Zenith, Germany for block making machines, respectively formed Apollo Carmix Equipments Private Limited and Apollo Zenith Concrete Technologies Private Limited. Apollo has also exclusive business partnership with HEM, USA for slip form paving equipment. Thus providing a complete range of world class concrete solutions under single roof to Indian infrastructure industry.

Apollo HawkeyePedershaab Concrete Technologies Pvt. Ltd (AHCT)

Sensing the need of technological advancement and cost effective solutions in the infrastructure industry of India, Apollo Infratech did a Joint Venture with HawkeyePedershaab - USA in the name of Apollo HawkeyePedershaab Concrete Technologies Pvt. Ltd (AHCT) to offer wide spectrum of machines for manufacturing Concrete Pipes, Lined Pipes, Jacking Pipes, Manhole Systems, Box culverts and allied products to the Indian customers using vertical cast vibration technology.

HawkeyePedershaab's primary brands include Hawkeye Group (founded in 1949) and Pedershaab Concrete Technologies (founded in 1915). HawkeyePedershaab - USA is the leading global manufacturer of capital equipment for the production of concrete pipes and manholes. With operations in Mediapolis, Iowa and Brønderslev, Denmark, Hawkeye offers a full range of customer solutions for manufacturers of concrete pipes, manholes and other precast products ranging from stand-alone production machines to fully automated plants incorporating the latest robotics and control technology.

In India, the joint venture AHCT has a manufacturing facility located strategically in the growth hub of India - Gujarat. It has an in-house design department equipped with the latest 3D modeling software to design the machines and moulds as per IS 458:2003 Standards. With the state-of-the-art facility, equipment, specialized tools & proprietary fixtures, the company manufactures products as per national and international standards.

Adhering to the quality policy of the company, stringent quality control measures are taken at every stage of manufacturing. Supervision, technical assistance and expert guidance are provided by the HawkeyePedershaab engineers as and when needed.

At AHCT our goal is simple – to create innovative and appropriate technology for the manufacturers to produce world-class quality concrete products.



Core Team of Apollo Infratech



Mr. Ajit Patel

As a Chairman and one of the founders of the Apollo Infratech, having more than 40 years of experience in the road construction equipment manufacturing industry, Mr. Ajit Patel decided to pave a new path in the concrete construction equipments industry and started Apollo Infratech Pvt. Ltd. Being a farsighted businessman, he could sense the growth opportunities of the business and invested his time and efforts in the development of the company. Today, the company benefits from his Vision, Leadership and Ingenuity, making great progress inland and overseas.

Mr. Mitul Patel

Young... Enthusiastic... Visionary... Mr. Mitul Patel - son of Mr. Ajit Patel - is the Managing Director and one of the founders of Apollo Infratech. When he returned to India in 2003 with an engineering degree from Penn State University, USA, he had a very clear vision of doing something concrete in the concrete machinery industry. After gaining significant experience in his family business of road construction equipment manufacturing, he decided to establish a new entity for concrete construction equipments that can contribute to the growth of his country. Since then he has been spearheading Apollo Infratech and under his dynamic leadership the company has seen major export and domestic growth. He did very successful Joint Ventures that took the company to new summits of success.

Mr. Kiran Patel

Mr. Kiran M. Patel is a Mechanical Engineer from the M.S. University, Vadodara. He got his Master Degree in Industrial Engineering from the University of Wisconsin, USA. Mr. Kiran Patel has more than twenty five years of experience in the manufacturing field and has exceptional expertise in establishing joint ventures, technical alliances, mergers, acquisitions, product driven partnerships, as well as putting together strategies for the International markets. He has been working with Apollo Infratech Group as a Director and mainly works on developing all business alliances for Apollo.



Core Team of HawkeyePedershaab



Mike Kiefer

Mike Kiefer serves HawkeyePedershaab as Chief Financial Officer. Kiefer joined HawkeyePedershaab in 2017 after serving 12 years with Caleres, Inc. (formerly Brown Shoe Company) and roles prior to that at Honeywell and Arthur Andersen. Kiefer brings over 15 years of corporate finance, M&A, strategic planning and operational planning to HawkeyePedershaab. Kiefer's role includes global scope for all Financial (e.g. accounting, AR/AP, treasury, etc.), CPD (Culture and People Development), and Information Technology. He holds a bachelor's degree in business from University of Missouri – Columbia and an MBA from Washington University in St. Louis.

Mr. Darrell Haar

Mr. Darrell Haar, Vice President, Sales at HawkeyePedershaab-USA possesses more than 52 years of experience in the Concrete Pipe Industry. He is a member of ASTM C13 committee writing standards for concrete pipe, precast box culverts and manhole products for more than 28 years. He is past board member of the Ontario Concrete Pipe Association as well as American Concrete Pipe Association and past President of Associate Members – American Concrete Pipe Association. He is also a Board member of Small Business Exporters Association. With 30 years of experience in the international concrete pipe industry, he has witnessed various types of concrete pipe production processes in more than 70 countries.



Mr. Brett Cox

Mr. Brett Cox is Supply Chain Manager of HawkeyePedershaab - USA. He held a variety of supply chain roles in various manufacturing industries prior to joining HawkeyePedershaab in 2004. Mr. Cox has a BS in Industrial Management from Missouri State University. He is a member of the Institute of Supply Management.



Concrete Pipe Making Machines : CAP 150, CAP 200

CAP series machines from Apollo HawkeyePedershaab are dry cast machine for manufacturing almost any type of high quality concrete products:

- Reinforced and non-reinforced pipes
- Circular and non-circular pipes with a “bell” or in-wall joint
- Lined pipe with PE, HDPE, PVC or GRP
- Jacking pipes
- Box culverts
- Manhole risers
- Cones

Single and Twin Station Capability

A second production station can be installed initially or added in the future. Second station permits two different product sizes to be produced at-a-time and virtually doubles machine output.

Standard Features (CAP 150/200)

- Compaction by synchronized core vibration
- Frequency controlled vibration speed
- Concrete feeding by radial horizontal feeder
- Hydraulic pressing/rocking function
- Demoulding by overhead crane

Vertical Vibrated Casting Technology



PRODUCTION CAPABILITY

Diameter mm	Reinforced pipe Length=2500mm Pipe/hour	Manhole riser Height=1200mm Units/hour	Manhole riser Height=600mm Units/hour	Box Culverts Length=2000mm Units/hour
300	7	-	-	4
600	8	11	16	4
900	7	9	16	3.5
1200	5	8	14	3
1500	4.5	7	12	2.5
1800	4	6.5	10	2.2
2000	3.5	5.5	8	1.9

Dimensions (mm)

Model	Circular Pipes	Box Culverts/ Manhole Cones	Max Product Length
CAP 150	300-1500	300-1200	2500
CAP 200	300-2000	300-1500	2500

Optional Features (CAP 150/200)

The CAP 150/200 can be supplied with a number of add-on features to make operations and handling even easier and improve production in general.

These include:

- Powered pivot for press arm and concrete feeder
- Stationary control panel
- Lifting hole equipment
- Pneumatic equipment for casting of lined pipe
- Elevating system
- Cooling system for the vibrator
- Double casting stations
- 3 Meter length
- Quick relocated platform / pit cover



Concrete Pipe Making Machines : CAP 250, CAP 360

CAP series machines from Apollo HawkeyePedershaab are dry cast machine for manufacturing almost any type of high quality concrete products:

- Reinforced and non-reinforced pipes
- Circular and non-circular pipes with a “bell” or in-wall joint
- Lined pipe with PE, HDPE, PVC or GRP
- Jacking pipes
- Box culverts
- Manhole risers
- Cones

Single and Twin Station Capability

A second production station can be installed initially or added in the future. Second station permits two different product sizes to be produced at-a-time and virtually doubles machine output.

Standard Features (CAP 250/360)

- Electrically driven, synchronized VIHY core vibration system with oil-lubricated bearings.
- Frequency controlled vibrator speeds.
- Concrete feeder with belt distributor for direct filling of all pipe diameters.
- Hydraulically operated pressing/rocking device for forming spigots, with mechanical pipe length control.
- Hydraulic power pack to drive the concrete feeder, the pressing/rocking device and any given hydraulic features on the machine.
- Mechanical elevation system to accommodate different product lengths.
- Stationary Panel with PLC control system and digital display.
- Pit cover plates incl. stairway to the pit for easy access to the machine and the mold.
- Safety system for compliance with EU standard requirements.

Vertical Vibrated Casting Technology



PRODUCTION CAPABILITY

Diameter mm	Reinforced pipe Length=2500mm Pipe/hour	Manhole riser Height=1200mm Units/hour	Manhole riser Height=600mm Units/hour	Box Culverts Length=2000mm Units/hour
300	7	-	-	4
600	8	11	16	4
900	7	9	16	3.5
1200	5	8	14	3
1500	4.5	7	12	2.5
1800	4	6.5	10	2.2
2000	3.5	5.5	8	1.9
2500	2.5	4	5	1.5
3000	1.4	2	3	1.2
3600	1.0	1.5	2	-

Dimensions (mm)

Model	Circular Pipes	Box Culverts/ Manhole Cones	Max Product Length
CAP 250	300-2500	300-2000	2500
CAP 360	600-3600	600-3000	3000

Optional Features (CAP 250/360)

The CAP 250/360 can be supplied with a number of add-on features to make operations and handling even easier and improve production in general.

These include:

- Top ring (header) system
- Lifting hole equipment
- Pneumatic equipment for casting of lined pipe
- Double casting stations
- 3 Meter length
- Quick relocated platform / pit cover.
- Pneumatic pallet locking
- Laser fine filling control with concrete distribution belt
- Direct cast-in pin holes for step holes or inserts



Moulds & Accessories

A concrete product can only ever be as good as the mould it was made in – words to live by and trust when it comes to mould equipment. ApolloHawkeyePedershaab's vast experience coupled with our engineering and manufacturing abilities, enables the supply of precise, robust and long-lasting moulds, able to produce all types of precast concrete products like pipes, manholes and box culverts.

We supply high-quality pallets, headers and set rings, used to form the ever-important joints on the produced precast concrete products.



Manhole Mould



Pipe Mould



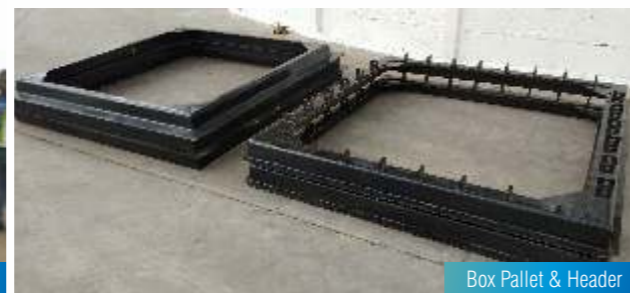
Box Mould



Pipe Pallet



Pipe Set Rings



Box Pallet & Header



Make
Concrete Pipes,
Manholes & Box Culverts
With Our World Class Concrete Machinery



Cage Welding Machines



With an objective of providing the best and the most innovative products to the Indian market, AHCT did a Technical Alliance with Germany based group MBK which is one of the best manufacturers of cage welding machine worldwide. Established in 1961, MBK Maschinenbau GmbH is today a global market leader for welding machines for the concrete industry.

The company's conduct is characterized by fair and friendly working relationships between customers, employees and business partners. It's quality management systems are according to DIN EN ISO 9001.

MBK - it not only means the highest level of expertise and experience, but also stands for individualisation and distinctive service performance, beginning with the first design sketch and going all the way to production, installation and finally, after sales service.

Cage Welding Machine : MBK ISM - 250

ISM-250-R - a wire cage making machine for the reinforcement of concrete pipes and manholes, is made in India in accordance with the design of MBK Maschinenbau GmbH, Germany

The machine is suitable for the production of round straight cages as well as round cage with bell.

Faster way to make quality cage



Production Capability (Cages of 2500mm length per hour)

Cage Dia. (mm)	Spacing of Winding Wire (mm)												Long. Wire (Nos.)
	40	50	60	70	80	90	100	110	120	130	140	150	
330	10	11	13	15	16	17	18	19	20	21	21	22	9
600	9	10	12	14	15	16	17	18	18	19	20	21	9
900	6	7	8	9	10	11	11	12	13	13	14	14	9
1200	5	6	7	8	9	10	10	11	12	12	13	13	18
1500	4	5	5	6	7	7	8	9	9	9	10	10	18
1800	3	4	5	5	6	7	7	8	8	8	9	9	18
2000	3	4	5	5	6	7	7	8	8	8	9	9	18
2500	2	3	3	4	5	5	5	6	6	6	7	7	18

Specifications

- Diameter of cage : 330 mm-2500 mm
- Length of cage : 3000mm (Max.)
- Number of longitudinal : 18
- Spacing of wrap wire : 20-200 mm
- Diameter of longitudinal : 4-10 mm (4-8 mm for bell type)
- Diameter of wrap wire : 4-12 mm
- Welding capacity : 80 kva

Characteristics

- More reliability and long life span due to stable construction
- High flexibility
- Closest possible production tolerance for precise and straight cages; compatibility with every standard
- Rapid chain controlled diameter adjustment (hydraulic, low-maintenance)
- Holding tray for longitudinals (load weight upto 1 ton)
- Winding wire decoiler without cut-off ramp (fixed)
- Simple winding wire guide up to welding roller
- Water re- cooling system with closed circuit cooling (only necessary to fill once)
- Safety light barrier system separated for feeding and cage removal side
- Security fence on the left / right side as well as at the central division area
- Ambient conditions standard +5 up to +40°C
- Control of the machine with limit switches and PLC, safety with secure input / output in dual channel (double redundancy)
- Technical execution of the machine according to CE Conformity
- No foundation required
- Only one operator required



Solutions for Special Applications



HawkeyePedershaab has merged with BFS Betonfertigteilesysteme GmbH, based in Blaubeuren, Germany.

BFS develops, designs and produces machines for manufacturing high quality prefabricated concrete products to be used in sewage and waste water systems.

The main activities of BFS GmbH and its Italian branch office, BFS S.r.l., revolve around sophisticated machinery and equipment for production processes with flexible manufacturing capabilities.

The origin of BFS can be traced back to BaumgärtnerMaschinenfabrik GmbH, which was established in 1980 and was purchased by the Casagrande Group (Italy) in 2002. The "Impianti" department at Casagrande was assigned to BFS GmbH and it has since then operated as BFS S.r.l. The custom built equipment and machinery allow the production of a wide variety of concrete products and the company's close cooperation with individual customers creates an efficient, demand-oriented production platform for high-quality products. BFS develops and delivers modular systems from semi-automated single machine units to fully automated turnkey production plants.

State-of-the-art equipment and know-how has allowed BFS to establish itself in the national and international market as the innovation engine and technology leader for concrete pipe and manhole production as well as for other prefabricated concrete products for the professional construction of the civil engineering infrastructure.

SOUVERAEN

The most modern and efficient manufacture of concrete pipes with highest product quality in the **packer head** procedures up to 1600 mm dia.



KARIBIC

Fully automatic production line for :
Manhole rings and necks up to 1500 mm dia.
Manhole bases up to 1200 mm dia. Road and yard gullies



MAMMUT (for big box production)

Vibration table production for specialty products such as **box culverts** and supply line. It can make products with dimensions of up to **6850 x 5200 mm** and an overall height of 1200 mm with a maximum weight of 35 tons.



Solutions for Pressure Pipes

Water pressure main pipelines are generally projects for which a life expectancy of 100 years is required . A correct approach to best result of these projects involve many engineering activities and disciplines from the survey to the planning of the activities to the structural and hydraulic design.

The 60 years BFS (previously CASAGRANDE) experience in the supply of engineering, machinery, assistance for the manufacturing of concrete pressure pipes and for the pipeline construction can summarized as follow:

- 46 factories installed all around the world for PCCP, RCCP, RCP and PCSP types according to EN, AWWA, JIS Standards
- 15,000 km and more of water pressure pipelines built by using BFS Technology from 600 – 4200 I.D. x 6000 – 8000 mm length with working pressure up to 2 Mpa.
- All pipelines are still operating in very good conditions without particular maintenance costs after many years.

Types of pressure pipes

a) Pre - stressed Concrete Pipes (P.S.C.)

Applications: - Water supply; lift Irrigation and drainage schemes which involve medium pressure.

b) Pre - stressed Concrete Cylinder Pipes (P.C.C.P)

Applications: - Water transmissions and distribution pipelines, sewer force mains, cooling water systems and liners for pressure tunnels.



PCCP pipe working cycle for large diameter pipes

- Steel cylinders prepared by the automatic helical welding system
- Welding of the end rings to the cylinders
- Cylinders vertical testing
- Additional steel cage application on spigot and socket area (if required)
- Concrete preparation in the batching plant , quality control of the materials
- Pouring of concrete by a special distribution system to equalize the level of concrete inside and outside the Cylinder
- Vibration action system on inner and outer moulds in different stages
- Steam curing to reach the required concrete strength, approx. 6 hours
- Demould the inner and outer moulds ,
- Second curing by water spraying
- Remove the pipe and tilt it horizontally
- Circumferential post tensioning operation
- Concrete mortar coating by compact system (slurry spraying not required)
- Curing the concrete mortar for 24 hours
- Pipes laid in the store yard for at least 20 days.



PCCP pipes handling and laying

- Pipes will be transported by special saddles on flat truck horizontally
- Pipes will be laid beside the road along the trench by crawl crane
- The trench will be large enough to receive the pipeline and the crawl crane to install the pipes
- Pipe will be transported into the trench by a special trailer in front of the laid pipes
- The crawl crane will lift the pipe from the trailer
- Pipes will be pulled and jointed to the laid piped by using a hydraulic jack from the inside of pipe



Specialized Wet Cast Mould Equipment

NEW HAMPTON
Metal Fab

HawkeyePedershaab has acquired New Hampton Metal Fabrication Corp., based in New Hampton, Iowa (USA).

The company was founded in 1945 by John Wegner, which manufactures form / mould equipment for the Pipe & Precast concrete industry specializing in; manholes, boxes, safety ends, curb inlets, pouring tables, flared ends, and specialty form equipment.



Custom Forms for Concrete

Spillman
Where Concrete Ideas Take Form

Spillman, located in Columbus, Ohio joins with New Hampton Metal Fabrication Corp. (NHMF), an Afinitas company.

Spillman, founded in 1948, a leading designer and manufacturer of custom wet-cast concrete forms. The company is also a provider of precast accessories relating to plastic spacers, magnetic products and automation solutions.



Quality

Due to the tireless efforts and customer-oriented policies, Apollo Infratech Group (AIG) enjoys a special status amongst its buyers. Right from the machine manufacturing process to its proper and timely dispatch, AIG personnel are on their toes to make the entire procedure fast yet flawless. But the group's responsibility does not end here. AIG ensures best quality human resource, the group conducts regular product training and updation program. Apart from in house design studio and world class product training facilities, Apollo also implement KAIZEN and 5S to improve working practices and personal efficiency as standard practice.

Certificate



Achieving Accolades

We at Apollo Infratech Group believe that if endeavors are pure and honest, you never need to chase rewards and recognitions as they become part and parcel of your journey. While the group has been held in high esteem and extreme trust by its countless satisfied customers, the trust has been manifested by the numerous awards group has won.

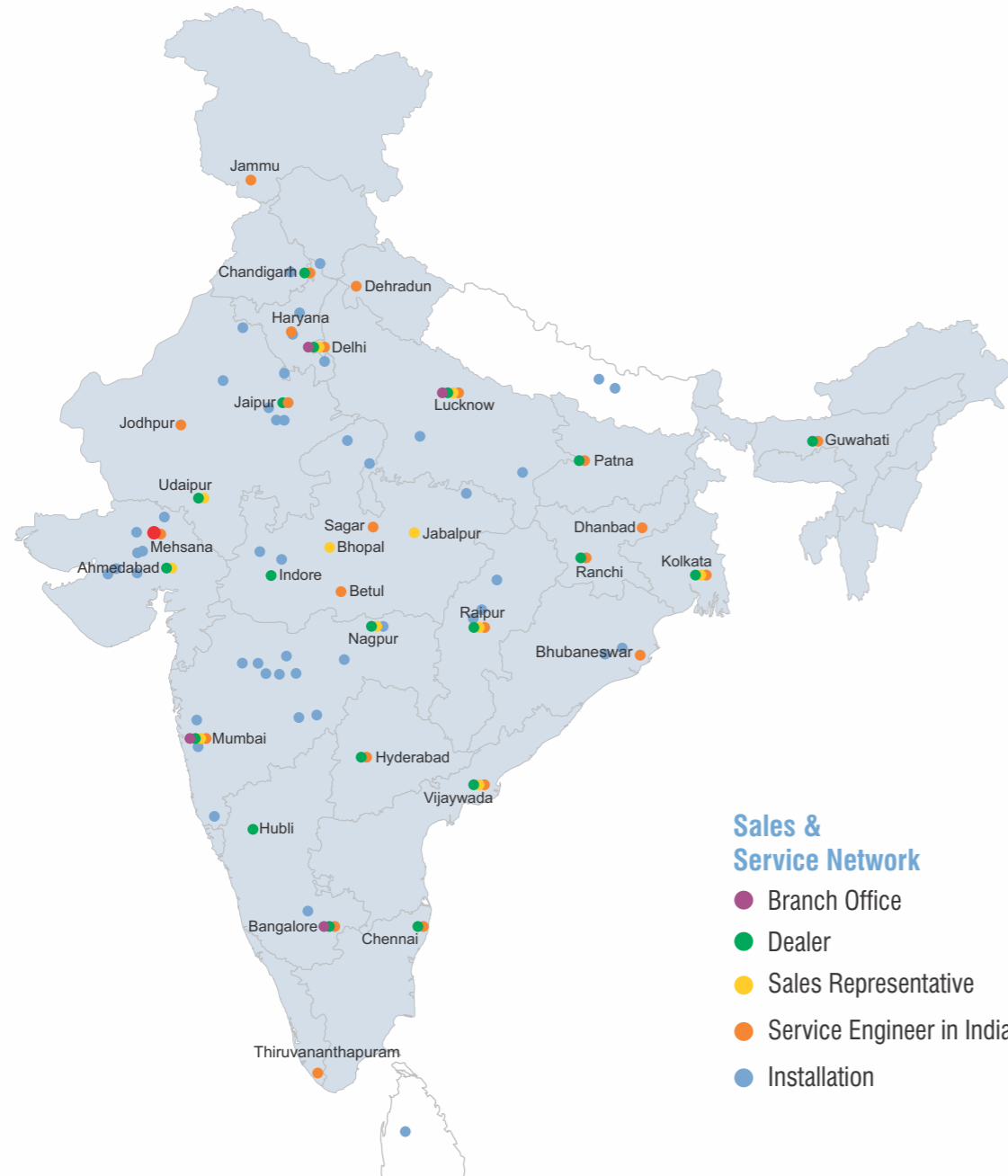
- 1) **Outstanding Company in Concrete Equipment**
EPC WORLD Awards 2012
- 2) **National Achievements Award For Construction & Design**
Indian Economic Development & Research Association, New Delhi
- 3) **Best LEAN Initiative Award 2011**
- 4) **Visionary Award 2011**
Vision Foundation
- 5) **Best Company in Construction Equipment 2016**
CIA World
- 6) **India's Greatest Brand & Leader award for 2017-18**
Asia One



Sales & Service Network

At Apollo HawkeyePedershaab, we make sure that our customers get quality spare parts and outstanding after sales service through our widespread service network. Apart from our regular services such as installation & commissioning, the group conducts continuous training programs at its world class training facility for its fleet of highly proficient service engineers to provide impeccable after-sale service. Apollo HawkeyePedershaab makes sure the customers' operators go through basic training to handle the equipment safely and look after the elementary trouble shooting.

The group also offers Annual Maintenance Contract (AMC) to safeguard the customers from incurring unexpected expenditure in the event of a breakdown. The AMC takes care of preventive maintenance and parts replacement. It also ensures trouble-free operations and longer life cycles. We have an effective spare part management and forecasting system in-place whereby procurement and warehousing is done.



Typical Plant Layout

