



Equipment & Automation for Pipe and Precast Concrete Product Production



World-Leading Equipment to produce:

- Concrete Pipe
- Manholes
- Box Culverts
- Poles, Piles, Columns
- High Pressure Pipe
- Slab and Veneer Products

www.afinitas.com

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About Afinitas

Afinitas is the world’s leading provider of equipment, automation, forming systems and accessories used in pipe and precast concrete product manufacturing.

We offer everything you need to optimize your production — from the world’s leading machinery, to high-quality wetcast forming systems for infrastructural, transportation and utility needs to a wide range of concrete accessories for spacing, lifting, fixation, reinforcement and more.

Headquartered in St. Louis, MO, we have nearly 500 team members worldwide, with sales and service facilities in the USA, Denmark, Germany, Italy, UK, and India, Our team of experts understands your needs and provides unmatched service and support. We offer trusted products and we are continually developing new products and technologies to help you win more business.

Afinitas is Intelligent Automation Technology

Forward-thinking manufacturers like Afinitas understand the benefits of incorporating automation into concrete pipe and manhole production — increased productivity, reduced labor inputs, predictable, repeatable quality, and more. Automated technologies in construction allow teams to do more in less time, with streamlined robotic processes that require minimal supervision and provide safer work environments. In addition, investing in automated manufacturing equipment gives you a competitive advantage and paves the way for the future of your business.

- Concrete Pipe
- Manhole and Box Culvert Machines
- Wetcast Automation Systems
- High Pressure Pipes, Poles, Piles and Columns Equipment
- Mold Equipment
- Plant Support Equipment
- Curing Systems
- Automated Post Processing and Handling Equipment
- Reinforcement Systems
- Pipe Unloaders
- Aftermarket Parts

Locations to Serve Your Needs

Afinitas has manufacturing and service locations throughout the world.



Learn more about us at www.afinitas.com



For more information, contact your local Afinitas sales representative.

At the heart of a concrete factory is the production machine. With our extensive product line, we have the available technology to tailor a plant solution ideal for your particular needs.

From simple stand-alone machines to fully automated plants incorporating the latest in electronics, robotics, and control technology, Afinitas has at its disposal a total family of solutions.

We have furnished and installed thousands of machines throughout the world. Our professionals work closely with our clients to design and specify the correct equipment; oversee installation, management, and startup of the project; and provide continuing support and consultation to ensure that your plant and machinery perform as envisioned.



See our entire offering at www.afinitas.com



 **A Portfolio Built on Trusted Brands**

1915

The machine factory of **Pedershaab** in Broenderslev, Denmark, began producing equipment for the concrete industry.

1949

Founding of **Hawkeye** in Mediapolis, IA
H.H. Schmidgall began making concrete block and tile in Morning Sun, IA

1956

Pipemaster Invented
First pipe-unloading machine invented

1962

First Pipe-Making Machine
VUP machine invented; production of concrete products stopped

1990s

Automated Machines
Began designing and building automatic machines

2000

Autoplants
Began automating entire factories

Product Matrix

	Automatic	Semi-Automatic	Concrete Pipe	Lined Concrete Products	Non-Round Shapes	Manhole Risers	Manhole Cones / Covers	Manhole Bases	Large Box Culverts	Specialty Products
ePak	▲		▲			▲				
Souveraen	▲		▲			▲				
Mastermatic XT	▲		▲		▲	▲				
PipePlus		▲	▲	▲	▲	▲	▲	▲		
Atlantic XT	▲				▲	▲	▲	▲		▲
Ringblitz	▲				▲	▲				▲
Multicast SCC		▲	▲	▲	▲	▲	▲	▲		
Multicast SCV		▲		▲	▲	▲	▲	▲	▲	▲
Multicast BC		▲		▲	▲			▲	▲	▲

A Portfolio Built on Trusted Brands

2007

Merged with Pedershaab CTW
Strong competitor with rich history back to 1915; global expansion

2016

Acquired by BW Forsyth Partners
Strategic investment arm of \$3B capital equipment firm

2017

Acquired New Hampton Metal Fab
October 2017
New Hampton, IA
Concrete Forming

Acquired BFS GmbH
November 2017
Blaubeuren, Germany
Equipment & Pressure Pipe

2018

Acquired CAM Sales
May 2018
Ludington, MI
Concrete Consumables

Acquired Spillman Company
October 2018
Columbus, OH
Architectural Forming

Afinitas Formed
Vision to provide world-class solutions and service to the precast industry

2021

Acquired Caswick Ltd.
September 2021
Doncaster, UK
Manhole Steps

Acquired Amifast
December 2021
Liberty Hill, TX
Concrete Accessories

2022

Acquired Johnson Gas
July 2022
Cedar Rapids, IA
Concrete Curing

Acquired Haala Industries
November 2022
Sleepy Eye, MN
Prefab Reinforcement

Service Throughout the Life of Your Equipment

Global Technical Support

Afinitas has decades of engineering and technical expertise to serve your needs worldwide.

Pre-Project Services

- Digital modeling
- ROI analysis
- Design consultation
- Plant tours
- Leasing and financing options
- Project Management
- Onsite or remote handling of specifications, materials, scheduling to keep project on time and budget

Equipment Start Up and Commissioning

- Dozens of experienced technicians to assist onsite or remotely
- Detailed training to ensure smooth operations
- Ongoing Service
- Onsite, by phone or Afinitas Connect remote-in capabilities
- Service subscriptions — preventative maintenance
- Follow-Up Consulting to enhance production

Aftersales

- Aftermarket specialists to ensure you have the proper parts when needed
- Thousands of parts in stock and ready to ship

Service Programs

Comprehensive service partnership programs for:

- Production Machines and Handling Equipment
- Form Equipment
- Curing Systems
- Plant Optimization



DRYCAST EQUIPMENT FOR PIPES, MANHOLES & BOX CULVERTS

From simple stand-alone machines to fully automated plants incorporating the latest in electronics, robotics, and control technology, Afinitas has at its disposal a total family of solutions.



See our entire offering of drycast equipment.



 See our entire offering at www.afinitas.com

ePak

Electronic direct-drive rollerhead redefines packerhead pipe production

The ePak machine represents a major leap forward in packerhead production technology. At the center is the machine's revolutionary eDrive rollerhead drive system. Powered by two proprietary, gearless, direct-drive, 60-pole, brushless permanent magnetic motors, the eDrive develops much higher than conventional torques and has a wider torque/speed operating band — allowing precise packing control throughout the machine's entire size range. The eDrive system accommodates Afinitas' innovative line of tooling as well as existing tooling of other makes and brands, including both single directional and bi-directional tooling.

Mechanically, the ePak's unique frame design permits the toptable, rollerhead drive unit, and bellpacker to continuously bear and smoothly travel on the machine frame, operating at speeds up to 25% faster than conventional frame designs. Additionally, the frame's bolted, two-piece construction makes for easier installation in existing buildings and lower shipping costs.

Available Models

	ePak 120	ePak 150	ePak 180
Product Diameter	300mm to 1200mm (12" to 48")	300mm to 1500mm (12" to 60")	450mm to 1800mm (18" to 72")
Product Length	0,25m to 2,5m (1' to 8')	0,25m to 2,5m (1' to 8')	0,25m to 2,5m (1' to 8')

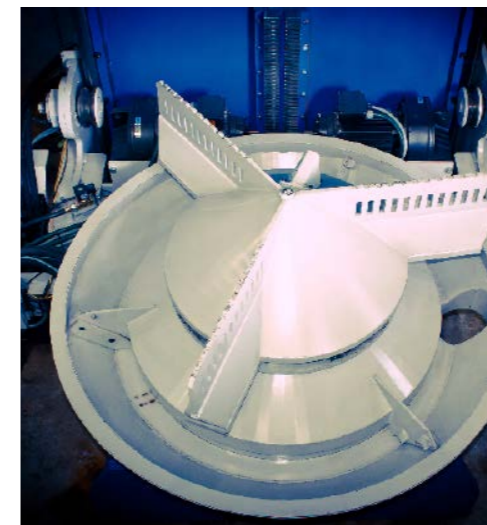
Machine Features

- Gearless, electronic direct-drive rollerhead, powered by two 60-pole, brushless permanent magnetic motors. This design gives more power for bigger pipe sizes while permitting more control for smaller pipe sizes.
- Rollerhead design accepts bi-directional, uni-directional, or a combination of bi- and uni-directional rollerhead tooling
- The main drive, toptable, and bellpacker are cantilevered to continually bear and smoothly roll on the ePak's unique main frame. Consequently, shaking and vibration are lessened minimizing wear on components. This allows the machine to operate at speeds up to 25% faster than conventional frame designs.
- Compact, centerpost-free turntable allows forms to be mounted closer to the centerpoint of turntable — permitting faster rotation of the form sets into the filling and offbearing positions
- ePak's advanced bell packer with dual self-synchronizing vibrators delivers powerful vertical vibration impact which quickly and effectively consolidates the pipe bell. The bellpacker is designed for self-cleaning and incorporates a single discharge point to permit easier or mechanized cleanup of excess concrete.
- Central PLC based console with touch-screen interface, video display monitor, and closed-loop controls that continuously provide feedback to the operating system for precise and accurate production control
- Available forklift-mounted video controller to permit machine operation by the forklift driver

Learn more
about ePak...



One-column machine frame design



Advanced bell packer



Guide system with V rollers



Unique gearless, electronic drive



ePak machine with operating console

Souveraen

Fast and efficient packerhead machine with electronic drive

The Souveraen is known for its high manufacturing quality using minimal manpower. The Souveraen design ingenuity uses counter-rotating, multilevel roller-head compaction tools operated by an advanced, high-tech control system. With only one (1) operator, Souveraen produces reinforced- and non-reinforced concrete pipes at a very high level in accordance with international standards.

Available Models

	SV 1225	SV 1230	SV 1235	SV 1625	SV 1630	SV 1635
Product Diameter	300mm to 1200mm (12" to 48")	300mm to 1200mm (12" to 48")	300mm to 1200mm (12" to 48")	300mm to 1600mm (12" to 64")	300mm to 1600mm (12" to 64")	300mm to 1600mm (12" to 64")
Product Length	2,5m (8')	3,0m (10')	3,5m (12')	2,5m (8')	3,0m (10')	3,5m (12')

Machine Features

- **S-Feed Compaction Control** — calculates amount of concrete needed to ensure uniform concrete compaction throughout the entire pipe length
- **S-Compact** — unique rollerhead technology comprised of multi-level rollers provides the highest concrete compaction at low water/cement ratios. The counter rotating movement perfectly embeds the reinforcement cage.
- **S-Eco** — main drive system combines frequency-controlled electric motors with state-of-the-art spur gear transmission to create exact speeds and a high torque for excellent compaction results. Energy efficient and produces minimal noise.
- **S-Flex** — this change system automatically converts all important product parameters with the push of a button

Learn more about Souveraen...



S-Compact rollerhead tool



Souveraen System



S-Eco Main Drive System



S-Flex Control Center



Automatic lifting anchor insertion robot



Robotic crane takes product to inventory area

VIHY Mastermatic

Unique pipe machine with rising core vibration technology

The VIHY Mastermatic XT is the perfect solution for mass-producing high-quality reinforced and non-reinforced concrete pipe. Its sophisticated rising core compaction technology permits forms to be filled and demolded up to 45% faster than with conventional fixed core vibration processes; and uniformly consolidates the concrete throughout the entire length of the pipe. A typical VIHY Mastermatic XT operation can produce up to 100,000 tons in a single-shift operation.

In addition to output and quality, the VIHY Mastermatic XT is quite flexible. Depending on the machine model and pipe sizes being produced, up to three different pipe sizes can be produced simultaneously. Equipped with Quick-Mold change components, forms can be changed in as little as thirty minutes each.

Available Models

	Mastermatic XT 150		Mastermatic XT 200	
Product Diameter	250mm to 1500mm (10" to 60")		250mm to 2000mm (10" to 78")	
Product Length	0,5m to 2,5m (2' to 8')	up to 3,0m (10') as an option	0,5m to 2,5m (2' to 8')	up to 3,0m (10') as an option

Machine Features

- Can produce two or three different diameters simultaneously (depending on machine model), which increases flexibility and reduces the investment in base pallets
- Self-contained production station complete with automatic concrete feed, presshead, and demold systems. Individual feed conveyors and pressurehead devices permit settings to be optimized for each form size.
- Built-in product demolder
- Advanced rising core VIHY vibration with Compactor Rotor System
- Option for automatic reinforcing cage and base ballet feeding system
- Finished pipe can be manually moved from the machine's production station by pipe transport truck; or automatically removed with a robotic off-bearer
- Central PLC console with touch-screen interface, video display monitor, and closed-loop control system to ensure optimum filling speed and concrete density

Learn more
about VIHY
Mastermatic...



Double Station



Single Station



Set Ring Platform



Three pipe sizes can be produced simultaneously



Electric Cart Product Transport

Atlantic

Fully-automatic manhole machine with double carriage demolding system

The Atlantic machine is an automatic fixed core vibration machine which makes it ideal for producing the complete range of manhole component products, such as manhole risers, cones, equalizing rings — circular as well as non-circular profiles. The machine has as standard the two carriage system for direct demolding allowing high output and higher quality than single carriage machines. It uses central core vibration with hydraulic clamping of the vibrator to the mold core allowing very short change-over times.

The Atlantic machine requires only one operator. It can be offered as a stand-alone machine with battery cart offbearing — or be integrated into a fully automated plant with automated handling systems.

Available Models

	Atlantic 1500	Atlantic 2000	Atlantic XT 2500
Product Diameter	300mm to 1500mm (12" to 60")	300mm to 2000mm (12" to 78")	300mm to 2000mm (12" to 98")
Product Height	100mm to 2500mm (4" to 98")	100mm to 2500mm (4" to 98")	250mm to 1100mm (1' to 4")
Product Length	up to 2500m (8')	up to 2500m (8')	—

Machine Features

- Fully automatic production cycle can be operated by one person
- Base pallet magazine pusher system automatically moves pallet to release agent spraying station and then into concrete casting position
- Compaction performed by central vibrator with hydraulic mold core clamping
- Noise dampening technology
- Optional automatic pallet handling system
- Manhole steps can be cast directly into products

Learn more
about
Atlantic...



Drycast stormwater pit



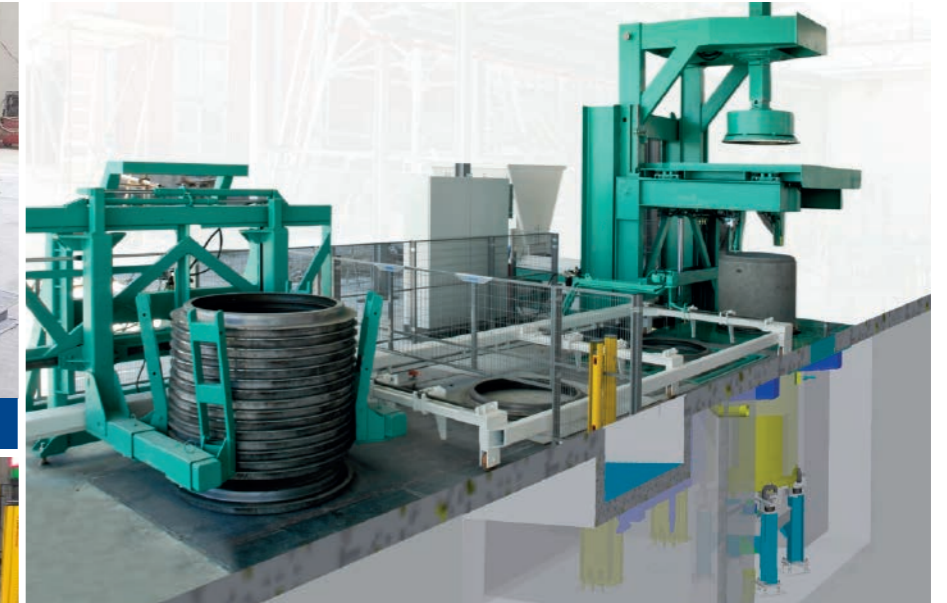
Atlantic Step Robot



Atlantic Battery Cart



Manhole finished product



Atlantic system overview



Manhole finished product



Robotrac Product Handling System

Ringblitz

Automatic production machine for grade rings and special products

The Ringblitz is a core vibration machine designed for high output production of grade rings and similar complementary manhole products. It is a fully automated, modular and above-floor production system which makes it very productive. The machine has a small footprint and can be installed in basically any kind of building.

Changeover times are very short and shifting between different product heights within the same diameter can be done in a few seconds with just a push on a button.

Available Products

The Ringblitz comes in a mono and a duo model, which can make one or two products at the time, respectively.

It can make products up to 1100mm (44") diameter and heights up to 500mm (1.67').

Machine Features

- The machine is easy to operate and requires a minimum of manpower.
- Concrete compaction via a modern central vibrator with hydraulic mold core clamping
- Automatic grease lubrication system available as an option
- The products can be demolded wet-on-wet directly on wooden pallets eliminating the need for secondary handling after curing
- It can be supplied to use a jibcrane for demolding — or it can be supplied with the Fasttrac demolding manipulator system which allows very high output with a minimum of labor
- Fully automatic height adjustment using hydraulic lifting and lowering movement

Learn more about Ringblitz...



Manhole ring production



Fasttrac Product Handling System



Ringblitz System



Pressing Device



Finished product



Manufacturing cycle without base pallets

VIHY Multicast SCC

Flexible core vibration machine for pipes and manholes

VIHY Multicast SCC is the ideal machine for high quality production of a large range of infrastructural concrete products such as reinforced and non-reinforced pipes, lined pipes, jacking pipes, manhole risers — with just one single machine.

The Multicast SCC machine can be supplied in a double station configuration to increase versatility, flexibility, as well as productivity.

The Multicast SCC machine is a semi-automatic machine where filling of concrete and presheading can be done automatically and only the demolding is done manually using an overhead crane. The advantage of this process is that even very large products can be produced with the machine — up to 3,6m diameter.

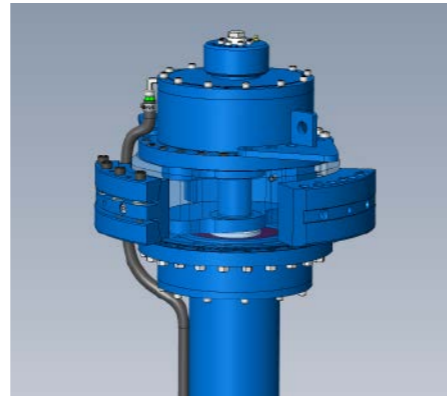
Available Models

VIHY Multicast SCC	VIHY Multicast SCC 150	VIHY Multicast SCC 200	VIHY Multicast SCC 250	Multicast SCC 360
Product Dimensions	300mm to 1500mm diameter pipes (12" to 60" diameter) and up to 2000mm (78") diameter for manholes	300mm to 2000mm diameter (12" to 78" diameter) for circular products	300mm to 2500mm diameter (12" to 96" diameter)	600mm to 3600mm diameter (24" to 144" diameter)
Product Lengths	0,25m to 2,5m (1' to 8'). A model for production of 3,0m (10') long products is available.	0,25m to 2,5m (1' to 8'). A model for production of 3,0m (10') long products is available.	0,25m to 2,5m (1' to 8'). A model for production of 3,0m (10') long products is available.	0,25m up to 3,0m (1' to 10')

Machine Features

- Recessed production station(s), available in single or double station configurations
- Adjustable form mounting system to adjust various length form sets to a uniform working elevation
- Powered concrete feeders, including computer-controlled feeders with laser-level fill control
- The powerful VIHY vibration system with synchronized core vibrators with oil-lubrication and cooling system allows the Multicast SCC machine to run consistently during production of large concrete products with even very heavy wall thickness
- Hydraulically powered presshead system designed for use with master spigot formers or individual stay-in-place top rings
- A vertical vibration system can be added to the machine to allow even wider range of products to be manufactured
- Lined pipe (HDPE, PVC and GRP) production accessories available
- Central operator's console for efficient control of the entire machine operation. Automatic machine controls are also available
- Available for the production of up to 3,0m (10') long products

Learn more about VIHY Multicast SCC...



Large-diameter pipe production



Concrete feeding



Cured drycast jacking pipes



Spigot forming by hydraulic-driven press



Product demolding with hydraulic pallet clamps

VIHY Multicast SCV

Flexible vertical vibration machine for special concrete products

VIHY Multicast SCV is designed for special concrete products like non-circular products, box culverts, concrete products with base, as well as very shallow products such as covers and slabs.

The VIHY Multicast SCV machine uses vertical vibration created by our unique VIHY vibration tables and is therefore ideal for making high quality products of many special geometries.

The Multicast SCV machine can be supplied in a double station configuration to increase versatility, flexibility, as well as productivity.

The Multicast SCV machine is available in many sizes and can make very large products — up to 5,3 x 3,6m box culverts.

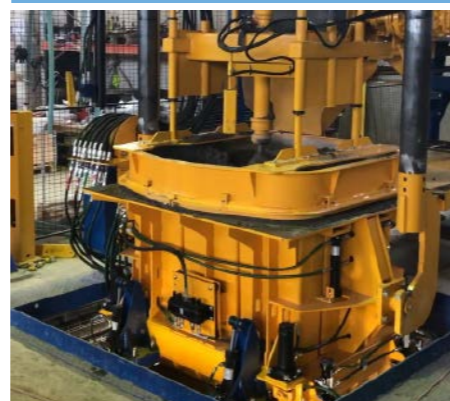
Available Models

VIHY Multicast SCV	VIHY Multicast SCV 120	VIHY Multicast SCV 250	VIHY Multicast SCV 300	VIHY Multicast SCV 360
Product Dimensions	300mm to 1200mm diameter (12" to 48" diameter)	600mm to 2500mm diameter (24" to 96" diameter) for circular products and up to 1800 x 1800mm (6' x 6') for square products	600mm to 3000mm diameter (24" to 120" diameter) for circular products and up to 2100 x 2100mm (7' x 7') for square products	600mm to 3600mm diameter (24" to 144" diameter) for circular products and up to 2500 x 2500mm (8" x 8") for square products
Product Lengths	up to 1,2m (4')	up to 2,5m (8')	up to 2,5m (8')	up to 2,5m (8')

Machine Features

- Recessed production station(s), available in single or double station configurations
- Strong and easy locking system for clamping molds to the vibration table
- Adjustable form mounting system to adjust various length form sets to a uniform working elevation
- Form turnover system for slab and base production available
- Powered concrete feeder, including computer-controlled feeding with laser-level fill control
- Hydraulically powered presshead system designed for giving the product a high-quality finish
- A central core vibration system can be added to the machine to allow an even wider range of products to be manufactured
- Operator platform system to permit safe and close access to form equipment during production
- Central operator's console for efficient control of the entire machine operation
- Automatic product demolding available (Mastercast demolding manipulator) for increased output and reduced labor

Learn more about VIHY Multicast SCV...



Filling and vibration of base section



Multicast SCV 250 machine



Open floor curing of sand traps



Concrete post demolding

VIHY Multicast BC

Drycast box culvert production machine

VIHY Multicast BC is specifically designed for production of box culverts and other square and rectangular concrete products — single cell boxes as well as double cell boxes.

The VIHY Multicast BC machine uses vertical vibration created by our unique VIHY vibration tables, and this machine is therefore ideal for making high quality box culverts. The vibrations from our vibration table are true vertical which secures optimum transfer of the energy to the molds for dense compaction of the concrete with a minimum of wear of the equipment.

The Multicast BC machine can ideally be combined with our modular mold equipment for box culverts which allows the producer to make many different sizes of boxes with just one single set of mold equipment.

The Multicast BC machine is available in several models and can make box culverts up to 5,25 x 3,6m box culverts — or 6,0 x 3,0m.

Machine Features

Recessed production station(s), available in single or double station configurations:

- Powered concrete feeders, operator or automatic control designs available, including X-Y computer-controlled feeders with laser-level fill control
- Moveable operator platform to permit safe and close access to form equipment during production
- Central operator's console for efficient control of the entire machine operation. Automatic machine controls are also available

Vibration Table Technology

Our vibration tables are renowned for their powerful vibrations and are recognized for their performance and their longevity:

- Each vibrating unit is designed with two counter-rotating, mechanically synchronized weight elements — generating only vertical vibrations
- The vibrators are oil-lubricated with optional water cooling for uninterrupted operation even in ambient temperatures higher than 40 degrees Celsius
- The upper part of the table is suspended on airbags with automatic control of the air pressure which effectively isolates the vibrations from transmitting into the foundations
- The upper part is machined for a completely level surface allowing full contact with the mold equipment and securing the vibrations are effectively transmitted to the mold
- The vibration table comes in six different models — with a load capacity of up to 60 tons

Available Models

	VIHY Multicast BC 360	Multicast BC 450
Product Dimensions	Up to 2500mm to 2500mm (8' to 8') box culverts, and up to 3600mm (144") diameter for circular products	Up to 6000mm to 3000mm (20' to 10') box culverts, and up to 3600mm (144") diameter for circular products
Product Lengths	up to 2,5m (8')	up to 2,5m (8')

Other models available on request.

Learn more about VIHY Multicast BC...



Demolding of box culvert



Modular core and jacket system



Demolding of box culvert



Drycast double-cell box culvert



Modular box culvert form



Multicast XL BC 360 machine

Modular Box Forms

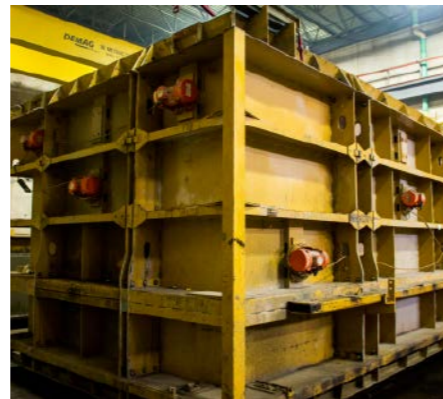
Produce boxes with unmatched precision and dimensional accuracy

Modular form and joint ring components can be configured to manufacture a wide range of products with a single set of components. Machined joint ring segments are capable of manufacturing both gasketed or mortar joints. Forming components are pegged and machined to facilitate precise assembly for the manufacture of high-quality box sections.

Machine Features

- All mold components (outer mold, core, pallet, and headers) are modular
- The mold system is designed so even the wall thickness can be varied to be able to meet all market requirements
- Box-shaped pallet structure prevents torsion of pallets
- Pallet joints can be multi joints — or machined for rubber ring joints
- Ability to easily change wall thickness
- Pegged and machined mold components facilitate precise assembly
- Designed for vertical vibration machines but compatible with other machine technologies — such as egg-laying process
- Strong pallet locks secure firm connection between outer mold and pallet

Learn more about Modular Box Forms...



Product demolding



Box culvert installation



Product demolding

PipePlus

Three-station turntable machine that can make pipes and manholes simultaneously

The PipePlus machine model will produce most of a typical plant's requirements. A single machine model can manufacture a full range of manhole products and concrete pipe, including box, arch, and elliptical shapes. The PipePlus is also used to produce catch basins, lined concrete pipe, and jacking pipe. For maximum production flexibility, three different shapes or form sizes can be run at-a-time on the PipePlus machine's three-station rotary turntable.

Available Models

	PipePlusPlus	PipePlus 96	PipePlusPlus Compact
Product Dimensions	300mm to 1800mm diameter (12" to 72" diameter)	300mm to 2400mm diameter (12" to 96" diameter)	300mm to 1800mm diameter (12" to 72" diameter)
Product Lengths	up to 3,5m (12')	up to 3,5m (12')	up to 3,5m (12')
Maximum Multiforms by Machine			
Singleform	up to 72" diameter	up to 96" diameter	up to 72" on one station and 60" on other two stations
Duoform	up to 30" diameter	up to 48" diameter	up to 24" diameter
Triform	—	up to 36" diameter	—
Quadform	up to 18" diameter	up to 30" diameter	up to 18" diameter
SixPak	—	up to 24" diameter	—
EightPak	—	up to 18" diameter	—

Machine Features

- Three-station rotary turntable with built-in operator's platform to permit safe and close access to form equipment
- Quick-change form anchorage components designed to accept a wide range of form styles and shapes, including multiform modules
- Concrete feed system with adjustable distributor to accommodate various form diameters and shapes
- Presshead system with built-in header infeed jib. System is designed to sequentially accommodate various form sizes, configurations, and types.
- Available PLC control system with a touch screen interface for semi-automatic filling and pressheading of products
- Hydraulic distribution system to equip each production station with power for available manhole step accessories, including step and lay hole formers and cast-in-place step mechanisms
- Electric distribution system to operate multiple vibration styles, including form-vibration, core-vibration, and table vibration. A table-mounted form rotator is available to facilitate the manufacture of manhole base and cover sections.

Learn more
about
PipePlus...



Flexible production



Automatic pressureheading



Concrete distributor chute



Handles a range of pipe sizes



Rotary three-station turntable

Pallet Handling Systems

The latest technology optimized for productivity and quality

Afinitas has a dedicated line of robots specifically engineered to bring more efficiency, consistency and productivity to the concrete pipe and manhole industries.

Our robotic solutions are individually tailored to precisely fit the needs and specifications of our users. Rather than restrict our clients to a pre-defined solution, we create systems that best fit the needs of our users. We can just apply automation to certain aspects of your production or provide a totally automatic factory.

We have commissioned nearly 100 fully or semi-automatic factories, including pipe factories, combination of pipe and manhole factories, and large bore pipe and box culvert factories. These factories are successfully using automation to manufacture products ranging in diameters from 250mm (10") to 4000mm (156") and up to 3500x5250mm.

Available Robotics

- Demolding cranes and offbearers
- Product handling manipulators
- Reinforcement handling systems
- Set ring removal manipulators
- Joint ring storage and retrieval manipulators
- Joint ring removal devices
- Joint ring cleaners
- Joint ring oiling devices

Learn more
about Pallet
Handling
Systems...



Inventory stacking



Joint ring retrieval



Joint ring cleaner



Pallet inventory system



Pallet manipulator

Pipe Finishing and Testing

Quality through design, technology and appropriate application

Post-processing and testing newly manufactured pipes and manholes are critical phases involved with the production of the highest quality concrete products. With our family of testing and processing equipment these vital production steps are consistently and dependably performed with a minimum of labor, time, and cost. The post-processing and testing equipment can be integrated and installed online with the plant's production machinery to create a seamless and automatic production system, or can be setup offline as independent testing and processing centers. Whichever orientation is used, significant labor and time savings can be achieved and the manufacturer can rest assured of his product's quality and performance.

Post-processing and testing equipment is available for concrete pipe, manhole, and box culvert production.

Available Products

- Deburring Devices
- Spigot Measuring Devices
- Product Labeling Devices
- D-Load Test Machines
- Vacuum Test Devices
- Hydrostatic Test Devices

Learn more about Pipe Finishing and Testing...



Vacuum testing



Box Tipper



Hydrostatic test machine (in-line)



Tecline Outfeed Turntable



Pipe manipulator



Stand-alone hydrostatic tester



Get More From Afinitas Forming Systems for Wetcast Applications



Heavy steel construction designed for strength, durability and performance

Afinitas is known for bringing together the top engineering and manufacturing expertise in the industry to build best-in-class precast forming systems. Our wide range of quality products are backed by knowledgeable and responsive customer sales and manufacturing team members who are there to assist you throughout the life of your form. And to that point, our forms are built to last. We combine heavy-duty steel with an innovative approach to manufacturing that will ensure we can help you take your business where you want to grow. Wetcast formwork is a core competency of the Afinitas team. We have been trusted for decades to engineer forms for a wide variety of applications.



Learn more at www.afinitas.com/concrete-formwork-systems

PRIMA 360 WETCAST AUTOMATION

Prima 360 is our innovative family of wetcast equipment and automation systems. Prima leverages a wide range of technologies we've developed internally to bring you the power to get wetcast products to market faster and with the utmost quality. No matter the size of your operation or range of products you make, we have a Prima to meet your needs and budget. With Prima you'll enhance productivity, reduce labor issues, increase throughput, and, ultimately, win more business.



See our entire offering of Prima 360 Wetcast Automation.





Prima System

Cutting-edge wetcast automation system designed to bring assembly line efficiency to the production of infrastructural products.

Prima is the ultimate system to take the guesswork and variability out of your wetcast product production. With a state-of-the-art production loop, automatic inventory management system and real-time analytics, Prima's highly optimized work stations reduce labor and increase throughput. Prima simplifies planning and provides all the metrics needed to optimize processes at every level of production.

Ease Labor Issues

- Assembly line approach eliminates wasted motions
- Specialized workstations allow for faster turnaround
- No aimless walking around searching for tools
- No time moving concrete around to forms and back to mixer
- Up to 50% labor reduction over traditional wetcast plant — drives a rapid ROI and a decisive advantage over the competition

Increase Profitability and Throughput

- Prima provides the tools to properly optimize and manage the complete process
- Exposes bottlenecks
- Large, real-time visual "scoreboard" provides immediate production data to avoid bottlenecks
- Promotes healthy "competition" among teams, prevents "sandbagging"
- Measure productivity — down to the individual product

Learn more about Prima...



Demolding station



Process line



Off feed line



Advanced production software



Forming that reduces cycle times



Prima Fit

Ingenious automation that flexes to your factory footprint or precast concrete product requirements.

Prima Fit — as the name suggests — is wetcast automation that scales to fit your requirements. It's a powerful, yet economical option that utilizes vertical product stacking to maximize floor space. In addition, Prima Fit can be easily configured to produce specialty precast structures that would require extra space and set up time on other systems. The flexibility and affordability of Prima Fit makes it an excellent choice to optimize your wetcast operations without breaking the bank.

Prima Fit is Ideally Suited to Produce:

- Median barriers
- Retaining walls
- Manhole products
- Other road and railway products
- Specialty products

Our technical team can help you design a system that optimizes your plant footprint and product needs. Contact us today to learn more.

Learn more about Prima Fit...



Are You Producing Polymer Products?

Our Prima Fit wetcast automation equipment is designed to meet your polymer needs, no matter the product type or size. Ask your Afinitas sales representative for a quote.



Manhole products



Inventory stacking



End product



Prima Fit concrete feeder with vibration table



Prima Fit concrete feeder



Prima Base

Maximize production efficiency, range and consistency of monolithic manhole bases.

Prima Base is an intuitive design software for creating limitless channel flow options for monolithic manhole bases. Prima Base transforms the labor-intensive, inconsistent traditional methods of producing monolithic manhole bases using an intelligent digital configurator and precision EPS milling system. Increase your output and quality while reducing rework with Prima Base.

Available Models

Capacity	Models
<p>A system using CNC multi-axis milling can output 30+ pieces in one shift and up to 15 pieces using the robotic milling device (depending on the product parameters).</p> <ul style="list-style-type: none"> Nominal diameter 600 – 2000mm (24–78") Vertical drop up to 900mm (3') 	<ul style="list-style-type: none"> Prima Base Hybrid (robotic milling arm and CNC multi-axis milling capabilities) Prima Base Robotic arm milling Prima Base CNC multi-axis milling

Intuitive Design Software

- The manhole channel design is automatically created using a user-friendly interface that can be available on your local server or a web server (your choice)
- Prima Base can run as a stand-alone system or integrated into your company's ERP system
- The web-based option allows usage from any computer station (PC, laptop, tablet or Smartphone), at work or remotely
- After the manhole base has been designed, a full manufacturing drawing can be downloaded immediately. Once approved the manhole base design is released for production with a single click.
- International language capabilities
- Connects to almost any ERP and can create a project workflow and associated paperwork (purchase orders, change orders, datasheets, etc.) within the system
- Calendar feature for scheduling and/or rescheduling work
- Barcoding can be added to datasheets
- Can also configure square manholes
- All channel settings can be saved as favorites for reuse
- Special configurators can be created to do very complex or unusual pieces
- Stacking software also available

Learn more about Prima Base...



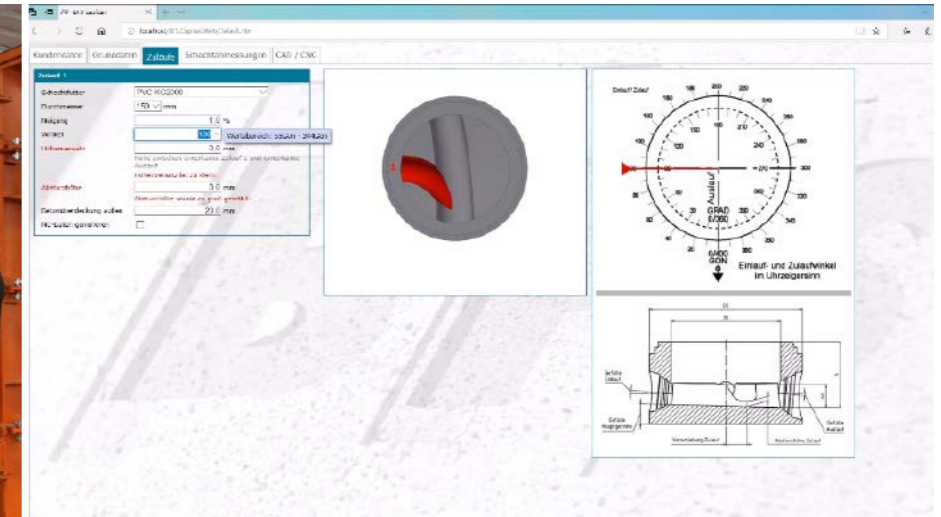
Mold with EPS core top



Robotic milling



Monolithic manhole base



Intuitive design software



Precision CNC milling



Prima Scape

Experience the beauty and precision of concrete slab and veneer production automation.

Prima Scape draws upon decades of vibration technology to help you create visually appealing and mechanically precise slabs, pavers, veneers and more. With one automated system, create reproductions of natural stones, slate, granite or terracotta in exact laying units for flooring, pool and fountain slabs, patios, deck slabs and other residential and commercial applications.

Concrete slab and other specialty precast products production features:

- Cycle time for pallet 35 sec. with a maximum of 6 products per cycle
- Standard width pallet: 1400mm (55")
- Standard length pallet: 1100mm (43")
- Max. product height: 4" (100mm-different heights can be discussed)
- Polyurethane (PUR) molds for slab production (other materials can be discussed)

Veneer stone and other specialty products production features:

- Cycle time for pallet 30–50 sec. for one battery mold
- Standard width pallet: 1200mm (48")
- Standard length pallet: 950mm (63")
- Max. product height: must be discussed
- Coloring of the products is manual process
- The molds can be made from different materials but we recommend Polyurethane (PUR) for the highest quality

Learn more about Prima Scape...



Robotic stacking unit



PUR molds



Example of end product



Prima Scape finished product conveyor



Prima Scape system



Get More From Afinitas Concrete Accessories



For Every Concrete Accessory Application

Knowledge is power. And knowing how to get the exact product for your application when and where you need it — well, these days, some might call that a superpower. We call it business as usual. When you team up with Afinitas, you get product, sourcing, manufacturing and service specialists who know accessories and know how they are used. And best of all, we're continuing to add more innovative products and capabilities to take you where you want to grow.



Learn more at www.afinitas.com/accessories

POLES & PILES

Spun technologies to produce vibrated spun poles, piles and columns, including standard prestressed reinforced poles, decorative spun poles, telecommunications applications and other applications like oil reinforcement, building foundations, offshore/onshore maritime structures and other prestressed applications.



See our entire offering of poles and piles.



Poles & Piles

Complete system for production of spun or vibrated concrete poles and piles

Afinitas is known for its specially developed spun concrete technologies that enable the production of reinforced or prestressed concrete poles and piles that are fully compliant with local regulations. The wide range of equipment offered fulfills all requirements regarding production cycles; from concrete formulation and mixing to spinning, drying, demolding, manufacture of reinforcement cages, prestressing and testing. The use of biconical molds enables significantly increased productivity as two products can be spun in each cycle. The degree of automation can be adapted to your needs in terms of productivity and flexibility.

Applications

- Transition lines
- GPS poles
- Mobile phone poles
- Light masts and billboard poles (parkings, malls etc)
- Street lanterns
- Foundation poles for bridges, ports, factories etc
- Poles for fences and columns for industrial buildings
- Poles for electrified railway lines

Features Spun Poles Technology

- Production range: From 300 – 1200 mm (12 – 48") outer diameter
- From 6 up to 50 m (20 – 164') length single piece
- Biconical molds for two pieces or more per mold
- PLC controlled spinning process
- Quick opening and closing procedures of molds
- Fast concrete filling system
- Shapes of tapered poles: circular, square, hexagon, octagon, fluted, flared, decorative shape any regular geometric section

Features Spun Piles Technology

- From 150 up to 2000 mm (6 – 80") diameter
- From 6 to 50 m (20 – 164') length
- Prestressed or reinforced
- Tapered or cylindrical single piece piles
- Cylindrical jointed type piles
- Square/octagon piles jointed type
- Micro piles, H piles

Learn more about Poles & Piles...



Transmission pole



Feeder line



Spun poles



Pole mold



Pole production plant



Introducing Afinitas Alliance Service Partnership Programs

Working together, through Service Partnerships, ensures safety, quality, and productivity — keys to success in today's dynamic plant environment.

An excellent way to stay ahead of the game is to be more proactive and preventative in the maintenance of your equipment. There's nothing more frustrating than a simple part bringing your production to a grinding halt — not to mention the time and productivity lost waiting for a replacement.

That's why Afinitas has developed our Alliance Service Partnership Programs, designed to assist with reduced downtime, maintain product quality, and ensure your team members operate as safely, effectively, and efficiently as possible.

Our Alliance Service Programs are most optimized for multi-year partnership agreements where our field professionals help to identify risks that may create downtime and product deficiencies. These assessments occur during regular service visits scheduled to fit your particular needs.

During your planned visits, our field professional will evaluate your equipment, identify problem areas, and provide professional guidance for repairs and maintenance, as well as system updates and enhancements.

Why choose an Afinitas Alliance Multi-Year Service Partnership?

- Receive dedicated, individualized technician time spent on ensuring the reliability of your machinery and forms
- Proactive scheduling of service visits to prevent issues that could cause downtime
- Priority repair service and access to our vast parts inventory. We stock the parts so you don't have to maintain that extra overhead.
- Supplement your team with our skilled technicians who can support MRO needs as well as team member training
- Most importantly, our multi-year agreements provide for sustained, year-over-year, Service Partnerships that significantly build upon the familiarity and trust that you have already come to expect from Afinitas



Machine Maintenance Programs



Form Maintenance Programs



Plant Optimization Programs

HIGH PRESSURE CONCRETE PIPE PLANTS

Systems to produce prestressed cylinder pipes and prestressed concrete spun pipes for fresh water applications. From the start of the process, Afinitas is there to help you select the right system to meet your specific requirements. To assist in this, our team provides an initial design of the factory layout as well as pertinent technical and financial details. Once your system has been selected, Afinitas will manufacture it to your exact specifications and be there every step of the way to ensure it is expertly installed and commissioned.



See our entire offering of high pressure concrete pipe plants.



Learn more about our new Afinitas Alliance Service Partnership Programs

High Pressure Pipe

Production plant for concrete high pressure pipes

Our brand has been designing and producing quality high pressure concrete pipe equipment for more than 50 years and has influenced the development of the pressure pipe production equipment used today worldwide. Our pressure pipe equipment meets the pipe production requirements of both Europe (EN) and those of the American Water Works Association (AWWA) and most other rigorous standards for quality.

Pre-stressed Concrete Cylinder Pipe (PCCP) Equipment Features

- Specific design of vertical molds
- Strong and solid mold construction
- Easy hydraulic openings of inner and outer mold
- Uniform concrete distribution by a specifically designed motorized cone
- Strong vibration on the inner and outer mold by means of turbo vibrators
- Clever progressive vibrating system along the mold
- Steam curing of each casting mold
- Circumferential pre-stressing machine which is very reliable in maintaining the constant pull and pitch of the steel wire along the entire length of the pipe, for an optimal and uniform resistance to pipeline water pressure
- MRC machine to perform an accurate concrete compacted coating protection of the post compression steel spiral

Pre-stressed Concrete Spun Pipe (PCSP) Equipment Features

- Specific design of spun molds
- Strong and solid mold construction
- High performances of the special spinning machine:
 - 30 m/s (98 ft/s) peripheral speed
 - Hydraulic-movable wheels for covering a wide range of diameters
- Steam curing and water curing of each pipe
- Special vibration systems activated during the concrete pouring process to strongly compact concrete especially at the pipe joint area. The spinning machine's compacting roller expertly compacts and creates a smooth pipe inner surface.
- Circumferential pre-stressing machine is very reliable in maintaining the constant pull and pitch of the steel wire along the entire length of the pipe, guarantees an optimal and uniform resistance to pipeline water pressure
- MRC machine performs an accurate concrete compacted coating protection of the post compression steel spiral

Sizes

Pressure Pipes	Pre-stressed Concrete Cylinder Pipe (PCCP)	Pre-stressed Concrete Spun Pipe (PCSP)
Normal Nominal Diameters	400mm up to 4000mm (15" to 150")	300mm up to 2800mm (12" to 110")
Nominal Lengths	up to 8000m (26')	5000m up to 7000m (16' to 21')

Learn more about High Pressure Pipe...



Pipe core production



Coating machine



Spun pole mold



Prestressing wire



Mold filling



Cured product



Introducing Afinitas Alliance Machine Preventative Maintenance

Production Machine Evaluation

Available for Afinitas Machines, including:

- Atlantic
- CAP
- ePak
- Mastermatic
- Multicast
- PipePlus
- PipePro
- Prima Base (Smartcast/Capitan)
- Ringblitz
- Souveraen
- VUP

Our Machine Service Partnership Programs offer increased focus to our preventative maintenance and plans for repairs and improvements. As part of our inspection, we'll communicate the critical wear points and maintenance needed to your team. In addition, we'll evaluate wear and spare parts inventory, to avoid downtime and suggest machine upgrades/replacements to increase efficiency and reliability. The Afinitas technician will issue a written inspection report detailing all of this information along with recommended actions.

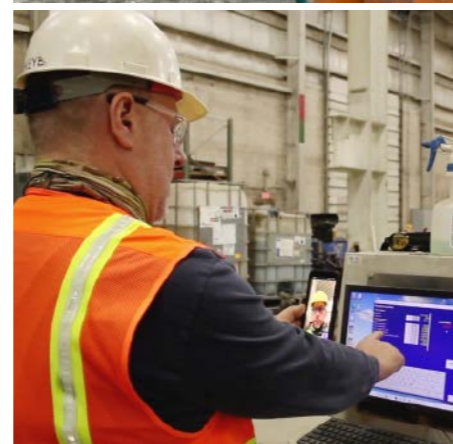
Equipment Evaluation List:

- Hydraulic and Pneumatic Power Source
- Electrical System and Controls
- Power Transmission (wheels, belts, gears, bearings)
- Operator Console or Interface
- Actuators (cylinders, motors)
- Specialized Parts on Equipment

NOTE: Production machine evaluation requires operator's survey filled out before the visit, observation of the machine in production, and approximately a half day of machine shutdown for close inspections. Sub-pit entry (if the machine has stilts/sub-pit) needs planned for the inspection. Consider confined space requirements.

Pick the Service Partnership Plan that Works for You

Contact us to discuss the service partnership plan that is professionally tailored to fit your particular needs.



CURING

Afinitas offers advanced concrete curing technologies, including direct-fired steam generators, controls and airflow systems, misting and drying components, plus kilns, piping and moving floors. All are backed by our global team of curing technicians.



See our entire offering of curing products.



Learn more about our new
Afinitas Alliance Service Partnership Programs

SmartSet CurePak® Curing Systems

Direct-Fired Steam Generation Technology


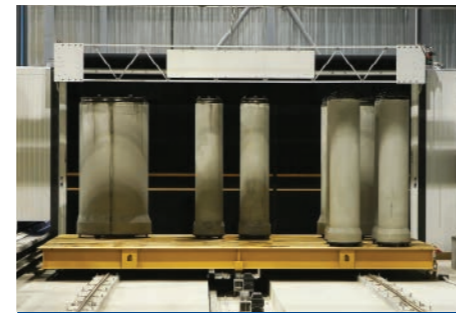
In many markets, a key to the production of the highest-quality concrete products is to ensure the products being produced are able to cure in a heat and humidity-controlled environment. That's why we developed our SmartSet CurePak Curing Systems to ensure the proper hydration of the cement will result in the strongest concrete possible. Our SmartSet Systems include:

- Advanced and basic model direct-fired steam generators
- Kiln control systems
- Air circulation and exhaust systems
- Installation and turnkey services
- Misting and dry burners
- Piping and equipment installation
- Kilns
- Moving floors
- Retrofits and upgrades
- Troubleshooting and preventative maintenance
- Vast parts inventory
- Dedicated technical team and service vans

Machine Features

- System automatically adjusts to proper firing load needed based on real-time conditions
- Automatic temperature control anticipates thermocouple reaction time during outlet temperature changes
- Combustion-engineered burner provides positive flame propagation and flame retention under a variety of gas/air ratios and line pressures
- Large combustion chamber perfectly manages timing, temperature and turbulence for a clean burn
- Auto-controlled water inlet chamber
- Fog control system
- Circulation system creates even heat and moisture throughout the kiln
- Drying for block systems
- Misting system

Learn more about CurePak...

AutoKiln – The most advanced pipe and manhole curing system on the market.



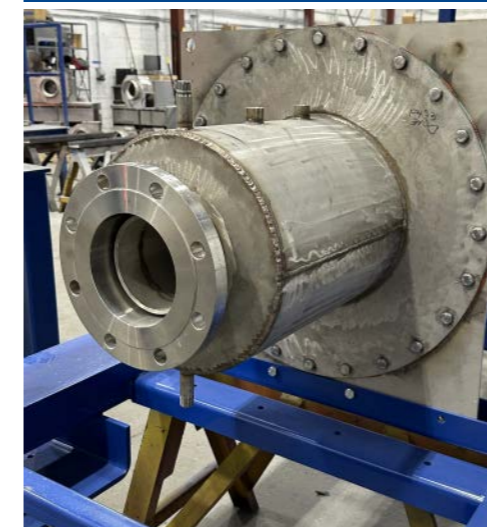
Telekiln – The simple and quick method for covering concrete pipe and manholes.



Canopy Kiln – The traditional solution for curing various concrete products.



Automatic controls



End bell



Steam curing



Pipe curing



CurePak Direct-Fired Steam Generation System



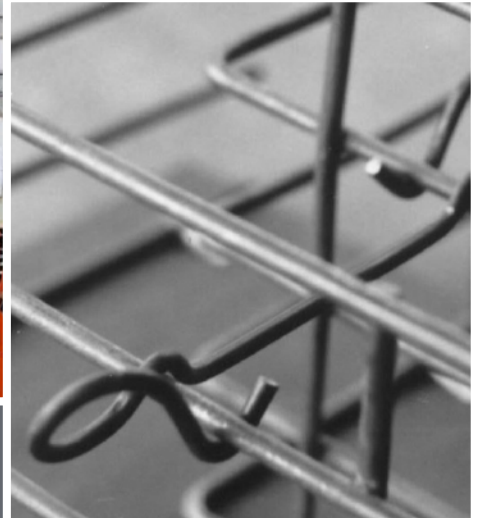
Equipment & Automation for Pipe and Precast Concrete Product Production

GET MORE FROM AFINITAS

Equipment & Automation



Concrete Accessories



Forming Systems

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Intelligent Infrastructure Solutions

Afinitas is a global, comprehensive and customer-oriented equipment, automation, forming and accessories platform for precast concrete and infrastructural products.

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