

AUTOMATED PRODUCT HANDLING EQUIPMENT

The pipe manipulator moves cured pipe from the moving floor system to the depalletizer.



After the cured pipe is moved to the depalletizer, the pallet is removed by pneumatic devices.

If the pipe has a top header ring, the pipe is rotated 180° and moved to the top header ring remover.



Besser Company now offers completely automated pipe production systems to producers around the world. The recent addition of the product handling system, designed by Messmann Service GmbH of Germany, complements our current pipe machinery product line. As part of the agreement, Besser and Messmann formed an exclusive partnership to continue the development of product handling equipment.

The automated handling system automatically places the pallet with a cage onto the machine loading station. A bi-rail moves the pipe to the moving floor, which transports it to the curing chamber. Once cured, the pipe is picked up by a robot and moved to

The manipulator transports the cured pipe from the depalletizing station to the top header ring removal station where the pipe is rotated 180 degrees, and the top header ring is removed.



Once the pallet and/or top header ring has been removed from the pipe, it moves on a table to the cleaning station where it rotates as wire brushes clean its surface.

a depalletizing station. The pallet is then cleaned, stacked and oiled while the pipe is placed on the staging area, where it is deburred, measured for roundness and vacuum- or hydrostatic-tested. The pipe travels to the marking station before being transported to the yard for storage. This product handling system can be installed in existing production facilities.

The Besser line of concrete pipe-making machinery includes both Advantage Series BiDi® concrete pipe machines and Besser OMAG vibration pipe machines. BiDi Advantage machines combine advanced pipe-making technology with the time-tested Bidirectional Rollerhead System to produce pipe with excellent wire-to-concrete bond, improved compaction and superior appearance. BiDi Advantage machines are available in

Pipe are gently placed on the finish line conveyor table by the manipulator. Once placed, the table rotates 90 degrees and the pipe moves to the deburring station.





7
The deburring devices are positioned on the pipe's spigot and socket inner and outer edges. As the pipe rotates the deburring devices remove the rough concrete edges.



8
Once deburred, the pipe moves into the measuring station where the spigot is measured for accuracy and the data recorded.



9
After being measured for roundness, the pipe moves into the testing station where it is vacuum- or hydrostatic-tested (depending on type of test machine).



three models: the A-36 machine to produce concrete pipe diameters from 8"-36" (200 mm - 900 mm) in maximum lengths of 8' (2.5 m) or 10' (3 m); the A-60 machine for diameters from 12"-60" (300 mm - 1500 mm) in maximum lengths of 8' (2.5 m) or 12' (3.5 m); and the A-84 machine for diameters from 18"-84" (450 mm - 2100 mm) in maximum lengths of 8' (2.5 m) or 12' (3.5 m).

Besser OMAG machines have a single vibrator that mounts in the inner core, ensuring that the concrete is fully compacted with an excellent wire-to-

concrete bond. Two machine types are offered—stationary core and rising core—in models that produce pipe in sizes from 12" - 66" (300 mm - 1600 mm) in maximum lengths up to 8' (2.5 m). Model R250/120 has a stationary core and produces pipe diameters of 12"- 48" (300 mm - 1200 mm) in maximum lengths up to 8' (2.5 m). The R250/160 machine has a rising core, produces pipe diameters from 12" - 66" (300 mm - 1600 mm) in maximum lengths up to 8' (2.5 m). The R120/120 manhole machine has a stationary core, produces manhole sections, risers, cones

and monolithic bases in diameters up to 48" (1200 mm) and lengths up to 48" (1.2 m). These pipe machines are capable of producing one, two and three pipe at a time depending on the model of machine.

Besser also has other vibration machines—the VIBRO-MAC® and HYDROPAK—that produce pipe with diameters as large as 156" (4000 mm)

Contact your Besser sales representative to learn how this equipment can improve the productivity of your production facility.



10
Once tested, the pipe moves into the data marking station. The pipe can be marked to include any information desired, such as: manufacturing date, class of pipe, company name, method of testing and/or pipe serial number.



11
Pipe that has been deburred, tested, measured and marked is ready to be moved into the storage area where it is available for delivery to the job site.



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For better viewing, all guards, safety devices and signs are not necessarily shown. Some of the equipment shown or described throughout this brochure is available at extra cost. Since the time of printing, some of the information in this brochure may have been updated; ask your Besser sales representative for details.