Superior Steel Conduit A Product of Torrance

In 1950, the Rome Cable Corporation, Rome, New York, purchased the Andersen-Carlson tube mill located on 213th Street. Shortly after the acquisition of its Torrance plant, Rome Cable brought out its first electrical metallic tubing. Light weight, mirror-smooth interior surface and over-all strength of this tubing, plus its uniform protective zinc coating soon brought the acceptance and acclaim of leading contractors, utilities, and industrials throughout the West.

Meanwhile, the engineers at Torrance were experimenting with rigid steel conduit.

Rome engineers felt that they could produce a better rigid conduit — one with greater strength, more uniformity of ductility and increased protection against corrosion. This would be something entirely new and unique for it would be the only full weight steel conduit to be: 1. Cold formed from shot blasted steel. 2. Electric resistance welded. 3. Hot-dip galvanized inside and out by Armco's famous Sendzimir process.

Today, the superior quality of Rome RIGID produced at the Torrance plant is testimony to persistent confidence in the excellence of steel conduit cold formed with electric resistance welded seam and galvanized by the Sendzimir hot-dip process.

The Steel

The steel used in Rome RIGID Steel Conduit at the Torrance plant is hot-rolled sheet, produced by the open-hearth process. Unlike ordinary "skelp" used in conventional rigid conduit manufacture, hot-rolled sheet steel is basically free of heavy mill scale and pits. This quality does not require pickling.

In addition, the purchase of sheet steel permits Rome to carefully control the thickness, weight, hardness and surface conditions to assure uniformity.

To further improve surface quality, the full width sheet stock is first run through a shot blast, in which millions of tiny, chilled steel particles are thrown by centrifugal wheels against both surfaces of the sheet as it is rerolled from one coil into another. This shot blast completly removes all oxides, rust, roughness, and dirt leaving a clean, bright, uniform, velvet-smooth surface.

Following the shot blasting operation the full width sheet is slit to proper width for forming. Here are two more of Rome Cable's precise controls —those for width and edge quality.

The strip is next fed into a series of forming rolls which shape it into round pipe by successive stages.

As the pipe is formed, the seam is closed by electric resistance welding. In the welding unit, heavy current is caused to flow between the two edges of the formed steel strip. At the same moment, side rolls exert sufficient pressure to bring the heated edges together to make a strongly welded joint.

This process, unique with Rome in the conduit field, provides three important advantages over ordinary butt welding.

First is strength. Electric resistance welding is recognized as providing a superior joint and is commonly specified for tubing in such high-pressure services as boiler and condenser tubes .

Second is surface quality. In electric resistance welding the only part of the pipe subjected to heat is a very small section at the actual joint of the weld. There is no other heating of the pipe with the result that the smooth, uniform surface produced by the shot blasting of the steel is retained, inside and out. Ordinary butt welding used in the conventional manufacture of conduit results in heavy scaling, necessitating pickling.

Third is uniformity of diameters. Once again the electrical resistance welding process permits careful control and inspection of inside and outside diameters and wall thickness.

The pipe is taken off the continuous tube mill in cut lengths, by a cut-off device which controls the length very accurately. Each length is carefully inspected for straightness. Any that fails to meet this stringent inspection is put on the straightening machine.

After chamfering and straightening, the pipe is ready for annealing and hot-dip galvanizing.

Rome Cable's hot-dip galvanizing process is unique in that it has never before been used for steel tubing.

It is a patented process known as the Sendzimir process. Rome is using it through a special licensing arrangement with Armco Steel Corporation.

The Sendzimir process has long been recognized as producing the highest and most uniform quality hot-dip galvanizing known.

The first unit in the Sendzimir process is the flame preheater. In this furnace, under a carefully controlled atmosphere, any dirt, oil or scale is burned off the inside and outside surfaces of the pipe. This furnace produces a uniform blue oxide, much like that of a gun barrel, on the pipe which is then fed directly into a reducing furnace at a high temperature.

This furnace performs two very important functions. First, it completely anneals the pipe, thus providing a uniformly soft and ductile conduit which can be easily and accurately bent. Second, the reducing atmosphere of hydrogen maintained in the furnace reduces the blue oxide to a mirror-smooth, stain-free, perfectly clean steel surface.

The reducing furnace discharges the pipe directly into the molten zinc bath. Thus, the pipe goes directly from the reducing atmosphere into the molten zinc at a temperature very close to that of the zinc.

The pipe is conveyed through a bath of pure zinc by a mechanical conveyor. Temperature is carefully controlled. This assures each length of pipe being exposed to the zinc at a uniform temperature and for the same period of time, guaranteeing a uniformity never before possible in galvanizing of rigid conduit.

After emerging from the hot-dip zinc bath, excess molten zinc is removed from both the inside and outside surfaces by an air and super-heated steam wipe. The conduit, now coated with a uniformly smooth, tightly bonded, ductile zinc coating is conveyed to a well-lighted inspection table.

Rome Rigid is the only rigid steel conduit produced under the complete technical control of the manufacturer from specification sheet steel to finished galvanized pipe. This is in keeping with Rome Cable's policy of starting with the basic material in the manufacture of its products.

Rome RIGID Conduit is threaded in a double-end threader.

The conduit now passes into a lacquering operation where it is, first, thoroughly cleaned by vapor degreasing.

Then a uniform coating of clear polyester lacquer is applied inside and out. This is baked to a smooth hard permanent coating to provide a slick, low friction surface for easy pulling.

When the conduit leaves the lacquer dip unit, it passes over an inspection table where each length received a 100 per cent inspection, inside and out.

After inspection, special color-coded therad protectors are applied. The conduit then receives the Underwriters' Laboratories label, is bundled and ready for shipment.

GOLD FOUND

Gold was first discovered in Colorado along a small stream that flowed into Cherry Creek, not far distant from the present site of Denver.

New Home Loans Nearing $2 Million in First Year

On April 1, 1955, the Torrance branch of the Southwest Savings and Loan Assn. will celebrate its first anniversary.

The first year of business in Torrance has been a thriving one, indeed, for this association, for new home loans, mostly in the Torrance area, have exceeded $1,750,000 in the local office, and savings deposits also are now well into the second million.

According to Eldon Bowen, manager, these additional investments will have swelled the local offices assets to approximately $6,000,000, with approximately $5,800,000 in total home loans in force through the Torrance branch as of April 1, 1955.

The local growth, as well as the steady growth of assets in the main office of Southwest Savings and Loan Assn. in Inglewood, have caused this organization's total assets to exceed $23,000,000, with savings investments of approximately $20,000,000.

"The Southwest Savings and Loan Assn., in accordance with a recent survey ranks 276th among the nation's 6600 savings and loan associations in size," Bowen said.

"Our association specializes in insured savings, and in home loans to meet your needs," says Bowen. "Please drop into our office at 1439 Marcelina Ave. and discuss your savings or loan problems with our skilled counselors, as so many other hundreds of persons have already done."

McCarthy Homes Selling To Engineers, Designers

Designers, architects, engineers, and draftsmen, all men who know fine, clean-lined architecture, are purchasing the Contemporary Rambler designed homes in the McCarthy Company, new Miraleste Knolls district located at the top of Ninth Street among knolls between Rolling Hills, Palos Verdes, and San Pedro.

Among the men who have already bought one of these new-type four-bedroom, two bath homes designed to fit the rigid requirements of the engineering-minded man are Willis E. Leach, design draftsman with Packard Bell; John E. Weiser, civil engineer; Robert E. McDonald, engineer for Hughes Aircraft; Robert D. Graves, engineer for Northrup Aircraft; Elmer C. Tischner, architect; and many others.

Especially popular with the professional men and their families is the use of massive-design, wood-burning, raised fireplaces and masonry walls which flow from the kitchen area into the living and dining areas and then, past ceiling-to-floor glass walls, into the paved outdoor living room, affording a 20 mile marine view.

Most of these families took advantage of the Veteran No-Down Payment terms, although several bought the $16,000-$18,000 homes on the FHA terms available to non-vets.