

Tower cranes, essentially in the same configuration as we know them today, became conspicuous in the late 1940s when they helped rebuild Europe after World War II. These are small-footprint machines powered electrically for noiseless operation and suitable for tight urban construction sites of both low- and high-rise structures. Over the years, the tower crane has seen enormous developments in terms of reach and lifting capacity, as well as improvements addressing deployment and operational convenience issues. In high-rise construction, tower cranes may provide the only solution for lifting materials, building elements, and formwork components other than concrete, which can also be and indeed is often pumped. A tower crane is suitable for a wide range of work assignments and site conditions, and responds to the great variety of needs and preferences of construction firms and crane rental companies. Although the electrically powered tower crane is still the most common model, diesel-powered models are available particularly in North America. However, in many parts of the world, particularly in Europe, tower cranes are widely used for all kinds of building projects, urban and rural. Lightweight, fast-erecting models are the machine of choice for the construction of low-rise residential and commercial structures, and even one-story houses in France, Italy. Its operating and control systems have undergone major changes using the technological developments of our times. Additionally, they are found on civil infrastructure projects. This is also true for its safety features.