

## 2016 BROAD TOP 10 NEWS

 THE DAVOS FORUM HIGHLIGHTED BROAD SUSTAINABLE BUILDING IN ITS ANNUAL REPORT ON GLOBAL CONSTRUCTION DEVELOPMENT Dec.

The Davos Forum (World Economic Forum) issues an annual report on global construction development every year. This year Boston Consulting Group was commissioned to conduct a thorough investigation into BROAD Sustainable Building (BSB). Their report concluded that "BSB's prefabrication strategy has many advantages over traditional construction techniques, in respect of time, cost, environmental impact, and overall quality", and BSB is "nothing short of a revolution in the construction industry."

2. THE INVENTION OF THE CORE TUBULAR STAINLESS STEEL SLAB, COLUMN AND BEAM REINVENTING THE WORLD'S BUILDING MATERIAL Oct.

BROAD's industrialized sustainable building (BSB) has disrupted traditional global construction since its debut in 2009 and was followed by 6 generations of technological upgrades over the next 7 years. The 6th generation BSB features a stainless steel panel clip diameter 16~32mm thin-wall core tubes, employing a special vacuum brazing assembly line which reduces cost and enables mass production. This provides a stainless steel building construction that was previously only dreamed about.

 THE DEVELOPMENT OF PRACTICAL VACUUM GLAZING WINDOW, STARTING A NEW ERA OF ENERGY-SAVING WINDOW Sep.

Vacuum glazing has been a major scientific research subject in developed countries for its high thermal insulation properties (3~5 times better than that of insulating glass unit), however, due to its high cost and lack of durability, it has yet to become available in the market. The revolutionary technology of "being made in normal temperature" and "large volume vacuum" developed by BROAD, will replace insulating glass unit with vacuum glazing, dramatically reducing energy consumption and improving acoustic insulation.

4. TITANIUM MATERIALS FOR HUMAN BONE TRANSPLANT USED IN NON-ELECTRIC AIR CONDITIONING HEAT EXCHANGE TUBES, REWRITING THE CENTURY-LONG HISTORY OF AIR CONDITIONING Oct.

As the best corrosion-resistant metal in the world, titanium was previously only used in aviation and aerospace, human dental implant and bone transplant. Central air conditioning is the heart of a building, and any corrosion or leakage on the thousands of heat-exchange tubes can cause a complete shutdown of the entire building's air conditioning system. To achieve "zero fault" and "the same lifespan as the building" for central air conditioning, BROAD has overcome the challenges of high cost and complicated technology by inventing the titanium-tubed air conditioning, extending the designed lifespan of the product to 60 years or longer, and with a market price no more than 20% higher than that of copper-tubed and stainless steel-tubed products. It has achieved an unparalleled competitive advantage.

 BROAD'S DISTRIBUTED ENERGY SYSTEM PROVIDES GREEN ENERGY FOR THE WORLD'S FASTEST DATA COMPUTING CENTER Mar.

Guangzhou's "Tianhe-2" Super Computing Center has installed BROAD CHP distributed energy systems to provide the most efficient and safest energy services. It can save 2,384 tons of oil equivalent and reduce 7,510 tons of CO<sub>2</sub> emissions per year; as per the international standard of conversion, based on every mature tree absorbing 18.3kg CO<sub>2</sub>, this is equivalent to planting 390,000 trees.

 200,000M<sup>2</sup> RESIDENCE IN DENMARK BENEFITS FROM BROAD NON-ELECTRIC HEAT PUMP, ACHIEVING ZERO ENERGY CONSUMPTION FOR HEATING Oct.

Denmark Grenaa district heating system installed the combined cycle of sawdust biomass boiler and heat pump. BROAD non-electric heat pump recovers 4MW of the boiler's flue gas waste heat, achieving nearly zero boiler exhaust gas emission. While providing heating for the 200,000m² residence, the system saves 3000 tons oil equivalent every year, equivalent to planting 490,000 trees; becoming a new benchmark in energy conservation and emission reduction in northern Europe.

 BROAD NON-ELECTRIC AIR CONDITIONING PROVIDES TURNKEY AIR CONDITIONING FOR THE G20 VENUE AS WELL AS HOTELS Sep.

Hangzhou G20 Convention Center and hotels have adopted 12 BROAD non-electric air conditionings as well as the BROAD operating service. The highest level of air conditioning was provided for the world leaders participating at the convention, achieving high efficiency, great comfort and zero fault operation, and creating a brand new image for China's "green development".

 BROAD CLEAN FRESH AIR PROMPTS BEIJING TO CARRY OUT TURNKEY "CLEAR AND FRESH CAMPUS WITHOUT SMOG" CONSTRUCTION Jan. ~ Dec.

To respond to the level of particulate matter 2.5 microns (PM2.5) that has fallen on Beijing beyond-index frequently, BROAD Clean Air has established a subsidiary which installed clean fresh air machines for 23 campuses, making it up to 100 times cleaner than the outdoors. Thanks to its success and high praises from schools, students and parents, it has prompted the Beijing Municipal Education Commission to fully implement the clean fresh air policy at all elementary and middle schools in the city.

 THE "BROAD COMBATS SMOG" CAMPAIGN, STRESSING THAT EVERYONE IS RESPONSIBLE FOR ENERGY CONSERVATION AND EMISSION REDUCTION, HAS BECOME MAINSTREAM Dec.

Amid the national smog-complaint wave, BROAD published advertisements in several national media, emphasizing that "energy is the root cause of smog, we should combat smog from the root cause", and that every company and every citizen should be self driven to produce and to use energy-efficient products and live a low-carbon life, so as to alleviate the pollution.

10. "DINGTALK" MOBILE OFFICE MODE HAS SIGNIFICANTLY IMPROVED WORK EFFICIENCY AT BROAD Mar. ~ Dec.

Work communication, document approval, working logs, attendance check etc. are included in DingTalk, achieving the leap from PC to mobile work mode, simplifying the working process, reducing information barriers, avoiding information delays and omissions, improving the transparency of performance evaluation and reducing the impact from Internet spam and useless information.