

project brief

TYPE OF FACILITY:
Research Facility



Diamond Synchrotron

■ Oxfordshire, United Kingdom

Built by Costain, Diamond Synchrotron is the largest ever Dti-led investment project for the UK scientific community. Its doughnut-shaped ring design is home to equipment capable of generating pure beams of infrared and ultraviolet light used by scientists to carry out an array of leading-edge experiments on the structure of matter.

Such is the precise nature of these tests that the Synchrotron building itself must be built to a degree of accuracy unheard of on most construction projects. The building is founded on a complex system of piles with a void below the floor preventing any transfer of forces caused by movement in the ground.

The mechanical and engineering requirements were every bit as rigorous to ensure a consistent internal environment in the laboratories. The Victaulic grooved piping system was specified and used due to the rubber gasket components that reduce noise and vibration within a piping system. The combination of three consecutive Style 75 lightweight flexible couplings, which possess noise dampening capabilities, became the innovative solution necessary for the project.

SPECIFICATIONS:

SERVICES:	PIPE MATERIALS:	PIPE SIZE RANGE:
Chilled Water	Carbon Steel	4 – 8"/114.3 – 219.1 mm



MARKET:
HVAC

VICTAULIC SOLUTIONS:
Use to join prefabricated module

OWNER:
CCLRC Rutherford
Appleton Laboratory

CONTRACTOR:
Haden Young

ENGINEER/CONSULTANT:
Jacobs Gibb

COMPLETED DATE:
2005

