

ProMinent ProMaqua water treatment for the Olympics

From 8 to 24 August 2008 a total of 42 competitions will be held in the Olympic disciplines of swimming, springboard diving, high diving, water ball and synchronized swimming in the "Water Cube" and in the Yingdong Natatorium in Beijing. The fundamental prerequisite for the athletes to achieve maximum performances in these disciplines is the need to maintain optimum water conditions. This means complying with the demanding quality guidelines stipulated by FINA (Fédération Internationale de Natation Amateur), acting as the umbrella organization for national swimming associations.

One of the 50 m competition pools in the National Natatorium also known as the "Water Cube"



With its water treatment systems, **ProMinent ProMaqua** effectively meets these demanding requirements, while its ozone generation systems ensure environmentally friendly, hygienic water treatment in all training and competition pools. Ozone is the most powerful oxidation agent and disinfectant that exhibits an extremely broad and effective biocidal spectrum. It rapidly and efficiently combats virtually all known bacteria, viruses and other microorganisms. Its main advantage is that it does not produce any undesirable by-products and simply breaks down into oxygen, making it a highly efficient and environmentally friendly means of water disinfection. In addition to disinfecting the water with ozone, thanks to the oxidation effect, organic substances such as humic acids, trihalogen methanes and chloramines are also degraded. With the development of its first ozone generating system in 1971, ProMinent laid the foundations for environmentally friendly water disinfection. The systems generate ozone from pure oxygen or from the oxygen in the ambient air and meter it into the water. Even under conditions with high atmospheric humidity, the integrated air treatment facility ensures reliable ozone generation.

Pure water for the Summer Olympic Games

Already at the 1972 Olympic Games in Munich the Heidelberg-based company was responsible for providing crystal-clear water for the swimming competitions to be followed by the Summer Olympic Games in Seoul 1988, Barcelona 1992, Sydney 2000, and Athens 2004.

ProMaqua products will also be used for water treatment at the Beijing Summer Olympic Games: A total of seven ozone generating systems of the Bono Zon series will ensure the required degree of water purity at the Water Cube and Yingdong Natatoria.

The challenge is to reliably disinfect approximately 16,000 cubic meters of water in the six training, diving, and competition swimming pools. Thanks to a programmable logic controller and clearly arranged display and operator control panel, the compact Bono Zon systems are easy and safe to operate. The ozone generators are designed for minimum power and cooling water consumption and are therefore extremely gentle on the environment. A total of 18 Sigma and Vario diaphragm metering pumps in combination with four Dulcomarin controllers and nine D1C controllers ensure exact metering of disinfectants, chemicals for pH-value adjustment and flocculants. All relevant water parameters are registered by a total of 37 Dulcotest sensors.

The following training and competition pools for the Beijing Olympic Games are equipped with ProMinent ProMaqua water treatment systems:

Olympic training and swimming pools	Pool dimensions [L x W x D][m]
Competition swimming pool in the National Natatorium "Water Cube"	50 x 25 x 2
Competition diving pool, "Water Cube"	25 x 25 x 5
Training pool in the National Natatorium "Water Cube"	50 x 25 x 2
Water ballet pool in the Yingdong Natatorium	50 x 25 x 2
Training pool for water ballet in the Yingdong Natatorium	50 x 25 x 2
Diving training pool in the Yingdong Natatorium	25 x 25 x 5

ProMinent water treatment at sporting competitions

Year	City	Country	Venue
1972	Munich	Germany	Olympic Games
1988	Seoul	South Korea	Olympic Games
1990	Peking	China	XI Asia Games
1992	Barcelona	Spain	Olympic Games
1999	Capital cities	Worldwide	Swatch-Wave
2000	Sydney	Australia	Olympic Games
2004	Athens	Greece	Olympic Games
2008	Beijing	China	Olympic Games

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سيشهد مُجمعي Water Cube و Yingdong للسباحة في الصين، من ٨ إلى ٢٤ آب (أغسطس) ٢٠٠٨، ٤٢ مسابقة في مجالات السباحة والغطس وكرة المياه والسباحة المتزامنة، وذلك من ضمن الألعاب الأولمبية التي ستقام في العاصمة بكين. تحتاج هذه المسابقات إلى الحفاظ على نوعية مياه مثالية على مدى مجريات هذه المسابقات لتأمين جو مثالي للرياضيين المشاركين وتعزيز أدائهم، وذلك ملاقة لمعايير نوعية المياه المتبعة من قبل الإتحاد الدولي للسباحة. تقوم شركة ProMinent ProMaqua بملاقة هذه المعايير بفعالية بواسطة أنظمة معالجة المياه التي تُصنعها، بالإضافة إلى أنظمة توليد الأوزون من الشركة التي تؤمن معالجة مياه صحية ومراعية للبيئة في جميع أحواض التمارين والمسابقات. ستؤمن الشركة ٧ أنظمة لتوليد الأوزون للمجمعين من سلسلة Bono Zon، والمفترض أن تواجه هذه الأنظمة تحدي تطهير وتنقية ما يقارب ١٦,٠٠٠ متر مكعب من المياه في ٦ أحواض للغطس والسباحة.

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