

Cosmodyne and Woikoski partner for a successful plant installation



*Interview with
Clas Palmberg,
President of
Oy Woikoski AB*

Q Describe your first contact with Cosmodyne.

A I visited Cosmodyne in Torrance for the first time the day the Gulf War broke out. As a government military supplier, Cosmodyne had a hectic time. The company produced small, extremely dependable 1 to 6 tpd portable liquid plants to military specifications, mainly for the U.S. Navy and Air Force. These plants, due to high power consumption and lack of automation, were not well suited for the highly competitive commercial market.

I also visited Cosmodyne's sister company Cryo-Chem in Murrieta, which was developing a fully automated cylinder filling system called Compufil®. Together with Cosmodyne, we specified the demands of Woikoski—25 tpd, low specific power consumption and a high degree of automation—with the help of components from the Compufil® system and those "clever guys in Murrieta." This resulted in an offer of a one of a kind plant, very similar to today's ASPEN 1000, but with some unsolved questions. Years later I received a brochure of the ASPEN 1000 plant, Cosmodyne's response to market demands similar to our own.

Q Why did you choose Cosmodyne?

A The Cosmodyne plant has numerous advantages:

- It is truly prefabricated and built into containers or container frames, which allows assembly of nearly all equipment and piping, including analyzers and electrical wiring, at the manufacturer's site.

- The plant can be fully tested at the manufacturer's site and your own personnel can be trained under supervision of the manufacturer.
- Shipping and erection of the plant is easy.
- The plant is fully movable and, thus, has a high resale value.
- The plant has a very high grade of automation and all parameters are stored in an archive for later use.
- The ASPEN is assembled with easy to obtain and maintain components with some grade of redundancy. For instance, the ASPEN uses two identical nitrogen recycle compressors at full capacity. However, if one fails, the plant will continue to operate, although at a lower production rate.
- Installing a liquefier can double the nitrogen capacity of the plant.
- Upgrade to the ASPEN 2000 is easy.

Q How has the plant been performing?

A The plant was erected in only six weeks and has been performing to our full satisfaction since. In my opinion, there is no serious competitor to Cosmodyne for this type of plant.

Q Is this Woikoski's first plant?

A Woikoski started production of acetylene in 1912 and the production of hydrogen and oxygen by the electrolysis of water in 1913. The first air separation plant was taken into use in 1932 and there have been seven other air separation units at different locations before the ASPEN plant. Two gaseous units still exist, but are not in use. Two additional units were left on the Russian side of the border after World War II and are still in use.

Q For what are the products from the Cosmodyne plant used?

A The products are used for the usual commercial market, including welding, metallurgical and medical purposes as well as applications for the electronic and food industries. Distribution is handled by Woikoski's 10 subsidiaries,

most of them including cylinder filling facilities and 130 resellers.

Q Where is the plant situated?

A The plant is situated in Voikoski connected to our hydropower station, which was refurbished for this very purpose during the period of 1994-1997.

The hydropower plant was originally built in 1917 and the direct current was used for electrolysis and later, in the 1930s, for air separation plants. The same idea used in 1917 seems to apply in 1999.



Q Why were you pleased with the service from Cosmodyne?

A Cosmodyne has lived up to all our expectations. The standard plant had to be modified due to different pressure vessel codes in Finland and many special demands from Woikoski. Here Cosmodyne showed great flexibility, ability and skill. During training and start-up, Cosmodyne also performed very well. Due to cold weather conditions, the air compressor had to be reprogrammed and the Ingersoll-Rand personnel from the U.S. arrived at the plant within very short notice.

We also experienced an equipment failure, which was dealt with in a timely fashion. Within 24 hours of notifying Cosmodyne, a representative arrived in Finland to correct the problem, and the plant was in production 12 hours later.

It was a pleasure to work with the Cosmodyne people, and the project was highly supported by the management of Cosmodyne and Cryogenic Industries.