# New Paging System Eliminates Headaches for Major Pharmaceutical Manufacturer

# **PHOENIX LABORATORIES**

Farmingdale, NY

### The Challenge

- Sprawling 225,000 sq. ft. manufacturing facility
- · Varying ceiling heights and noise levels

## · Flexible zone paging required

The solution was a 3-zone system featuring over 120 Bogen speakers, including 15-watt Horn Loudspeakers (SPT15A) and Easy Install® Ceiling Speakers (SM4T); a Bogen M-Class power amplifier (M600) and a Bogen telephone paging amplifier (TPU60B), all tied together through the Bogen PCM2000 Zone Paging System. Two zones covered the extensive warehouse and laboratory areas while one zone met the front office space needs, utilizing ten attenuators to adjust volume levels in the various rooms, such as offices and conference space.

Laboratories

The main computer room in the front part of the facility housed the controller and the paging amplifier while the power amp was placed back in the warehouse area distribution closet to handle the bulk of the horn speakers. Because of the size and shape of the building, Larkin had to run a fiberoptic cable, or "backbone", for the data portion of Phoenix's system. "It was six hundred feet back to the distribution closet, which was centrally located in the warehouse area, then another three hundred each way in the warehouses for the speaker runs," commented Larkin. "The fiber was for just data. Even for that distance, we were able to use copper for the speakers — 16 gauge for the feed and 18 gauge for the speakers — that's the beauty of the 70volt paging system, you don't get much (signal) drop." The paging system also operates as a background music system, piping a signal from a digital music service throughout the facility.

### **The Situation**

Phoenix Laboratories of Farmingdale, New York, is a major contract pharmaceutical manufacturer of tablets. capsules, soft gels, and powders. Founded by a husband and wife team, the successful firm outgrew its original plant and in 2004 built a new 225,000 square foot facility on Long Island.

With its new facility on the drawing board, Phoenix had the opportunity to install its first planned paging system. The challenge was how to provision such a sprawling facility — a front office operation attached to three main manufacturing and warehouse areas built along a main axis. According to Phoenix production coordinator Walter Cubinski, the new paging system had to accommodate ceiling heights varying from standard office drop ceilings to heights in the manufacturing and warehouse areas ranging between 20 and 50 feet. "We also have multi-floor areas and noise from various machines, dust collectors, and air conditioning systems in the manufacturing area that can affect the paging," stated Cubinski.

To address these and other issues, Phoenix Labs chose Clear View Communications of Whitestone, NY, to plan and install their new paging system. Realizing the scope of such a project, Clear View principal Warren Larkin turned to Bogen Communications for help in designing the system and supplying the components.

#### **The Solution**

To design Phoenix Lab's paging system, Larkin relied upon Bogen's free design service. "Tom Flannery (Bogen's New York-Metro Regional Sales Manager) came out and looked at the new building layout, took a copy of the plans, and made some recommendations," recalled Larkin. Flannery took the plans to Bogen Systems Design Engineer Al Gessman who then designed the paging system based on anticipated noise levels, power requirements, and optimal speaker placement to accommodate ceiling heights and area coverage.



#### The Results

With three paging zones, Phoenix is now able to page any or all of its zones from any telephone handset in the facility, from the front office to the back of the manufacturing and warehouse area, almost a quarter of a mile away. Pages can now be directed to the appropriate area without distracting the entire facility with unnecessary messages.

"Tom (Flannery) went over our needs with Bogen's design engineers. They'd do a CAD drawing layout with speaker placements, level settings, and we would go over it," said Larkin. "If we had any problems or questions, we could just call them up. They're good people to work with."

"You have to be very careful with these things," added Cubinski. "We had run into all sorts of feedback before with our old system. If the speakers aren't located in the right place you can have all sorts of problems. We had a certain idea of where we wanted things to be and they (Bogen) showed us where we would be better served with a slightly different placement."

With a properly designed and installed system as part of their new building, the selection of Bogen's paging system was an easy pill to swallow.

## **Product Highlights**

#### **Paging Zone Controllers**

The integrated Bogen PCM2000 Paging System was chosen for its versatility and flexibility, enabling Phoenix Labs to have three separate paging zones to minimize distraction during pages while being able to pipe background music throughout their large facility.

#### **Amplifiers**

Because of the great distances involved between the front and back of the facility, Clear View chose a Bogen M-Class 600-watt power amplifier to drive the large number of SPT15A Horn Loudspeakers in the warehouse area and a TPU60B 60-watt Telephone Paging Amplifier to drive the SM4T Ceiling Speakers in the front office area.

#### **Speakers**

This system incorporates two styles of Bogen speakers: SPT15A Horn Loudspeakers to effectively cover the large spaces created by up to 50-foot high ceilings in the warehouse area, and SM4T Easy Install Ceiling Speakers for their low profile, high efficiency, and excellent intelligibility in the quieter front office area with drop ceiling.

## **Equipment List**

38 - SM4T	Easy Install Ceiling Speaker
38 - SMTB	Tile Bridge for the SM4T
10 - AT10A	Speaker Line Attenuator,
	10-Watt
38 - SPT15A	Reentrant Horn, 15-Watt
38 - BC1	Beam Mounting Clamp for the
	SPT15A
1 - TPU60B	Telephone Paging Amplifier,
	60-Watt
1 - RPK82	Rack Mounting Kit for the
	TPU60B
1 - M600	M-Class Amplifier, 600-Watt
1 - RPK86	Rack Mounting Kit for the
	M600
1 - TAMB	Telephone Access Module
1 - PRSASAC	Power Supply for the TAMB
1 - TP30D	AM/FM Receiver
1 - CDC3	CD Player
1 - PCMTIM	PCM2000 Telephone Interface
	Module
1 - PCMCPU	PCM2000 Central Processing
	Module
1 - PCMPS2	PCM2000 Power Supply
1 – PCMZPM	PCM2000 Zone Paging Module

SPT15A Horn Loudspeakers



SM4T Easy Install® Ceiling Speakers



TPU-Series
Telephone Paging
Amplifiers



**Key Products** 

1 - RPK84

M-Class
Power Amplifiers



PCM2000

TAMB
Telephone Access
Module



Rack Mounting Kit for the

PCM2000 Paging Control System

