Keynote Address from the 1996 International Compressor Engineering and Refrigeration Conferences

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Good morning ladies and gentlemen.

Welcome to the International Refrigeration and Compressor Engineering Conference. It is truly an honor for me to speak to you today, especially since it gives me a chance to return to speak at my alma mater.

While I’ve attended many conferences and meetings here, it is an exciting opportunity to return here and address an engineering conference in this lecture hall. It definitely takes me back. When I was an undergraduate freshman in 1967, and a graduate freshman in 1971, it was impossible to imagine the changes that have taken place in the world. In terms of technology alone, many of the items we use to do business today were merely pipe dreams in those years.

In 1971, most of us would not believe the person who said that a fax machine would soon be as common as a telephone, a computer would weigh four pounds, and information from across the globe could be accessed in seconds via a network of computers called the Internet.

The world is definitely changing. Whether the Montreal Protocol or business protocol, global markets or global warming, we are all facing a brave and changing world. Be it new markets, demanding customers, international government mandates, our industries are changing at a rapid rate to meet demand. And we must rise to meet the challenge.

It’s actually quite fitting that we gather today at such an esteemed educational institution, dedicated to renewing our scholarly initiative and working to expand our horizons. From my perspective, the key to meeting this challenge is education – if only my former professors could hear me now.

I read an article last week about challenges and change that I thought appropriate to bring up today. It was an editorial on Microsoft and how they are adapting to meet the demands of the Net. The author noted that Bill Gates had to make a pragmatic decision to reverse course at Microsoft and jump from PC’s to the Internet. “It is a leap worth noting”, he wrote “for few
leaders in business, or government, are able to make such a cosmic adjustment, either conceptually or in practice. We tend to fight the last war and repeat the same behaviors and solve the same problems. It can be deadly.”

So what I would like to do here today, is spend some time determining the answer to the question: Is engineering fighting the last war, or is it adapting and advancing to meet the changing demands of business and government today?

In the spirit of learning, please let me share a few insights into the business of air compressors, and Ingersoll-Rand, in particular.

Ingersoll-Rand has been manufacturing machinery and equipment for 125 years and air compressors for over 100 years. Today, we are a leading compressor supplier. To almost every industrial and commercial market around the world.

At one time, air compressors were thought only to power tools and move machines. Today, compressed air systems power a variety of process applications in diverse industries. The expansion of a simple idea -- a simple mechanical action -- applied to multiple disciplines and uses.

Ingersoll-Rand is a global supplier of compressed air systems. We produce centrifugal, rotary and reciprocating compressors, and system accessories. We offer our customers this wide range of products, because we believe that it is important for them to have the technology best suited to meet their processing needs, so that they, in turn, enhance their business.

However, good service to the customer is key also, and sometimes offers its own unique rewards. We have a strong record of service with a global clientele. We address unusual customer needs that require highly creative engineering. Whatever our customers require in terms of cost reduction, noise abatement, minimum downtime and reliability, we supply.

One example of this is a Tunisian iron mining company that just a few years ago gave us its first repeat order for compressed air equipment. What’s notable is that their original order of eight compressors was filled more than 70 years earlier. Its original compressors were still working flawlessly, but they now had a need for additional capacity. Customers never forget -- the bad or the good.

Striving to be a technical innovator, developing new markets, and commercializing technical breakthroughs has taken Ingersoll-Rand where it is today.

Behind that record of innovation and service stands one fact. Even though we’ve been around for over 100 years, we constantly educate ourselves and reinvent ourselves.

We reinvent ourselves to stay in turn with changing customers’ needs, to remain positioned to harness technological advances, and to stay ahead of the competition, be they changes within existing markets, or differences between current and emerging markets.
While "reengineering" has recently become a popular slogan in Corporate America, it has been a way of life for Ingersoll-Rand. Education and innovation not only pay dividends, today they are necessary tools for financial survival.

With the worldwide spread of free enterprise, global competition is getting tougher each year. Customers are ever more demanding.

We’re not just talking about quantitative changes in aggregate supply and demand here. We’re talking about a qualitative change in the basic dynamics of competition.

That means you can’t meet marketplace demand for heightened responsiveness by simply relying on what you did or on what you knew yesterday. That would be like fighting the old war again. Reengineering allows us to fight the new wars, and win them.

Our commitment to reengineering creates an environment conducive to constant change and learning, and moves us faster into tomorrow. Let me describe the principles that underscore Ingersoll-Rand’s commitment.

- First, most people want to do a good job. That means it’s incumbent on every manager to let people do a good job by inspiring individual initiative.
- Second, most people have a lot of pride. You need to harness that powerful motivating force by providing people truly challenging assignments, giving them the opportunity for achievement they will be proud of.
- Third, most people have good ideas, and we need all the ingenuity we can get. There is no responsibility more important than creating an open atmosphere where ideas can be freely expressed.
- Fourth, most people want to have responsibility. The surest way for managers to achieve performance objectives is to share responsibility and authority with employees.
- Fifth, most people, if informed will do a better job. Telling people how they’re doing on a regular basis feeds them. It feeds their energy. It feeds their imagination. It feeds their commitment.
- Sixth, most people are ethical. There is nothing more corrosive to organizational morale than distrust, so build on a foundation of shared trust organization-wide.

These key elements help foster an attitude of cooperation and learning.

Ingersoll-Rand also encourages practical thinking that helps our company move forward in a changing industry and world. Here are several practices that encourage that forward movement.

First, Ingersoll-Rand does not try to preserve the practices of the past. Our engineers and management initiate change, and wherever possible, accelerate it.

Second, the past doesn’t give up without a fight. Necessary as change is, organizations resist it. We know that we must be unrelenting in our commitment to change, day in, and day out.
Third, management must be simultaneously tight and loose. “Tight” in the sense that people must be held strictly accountable for results. “Loose” in the sense that they must have the required discretionary authority to get the job done.

Fourth, response time. Speeding up all our business processes is absolutely essential to reduce inventory, cut costs and strengthen financial performance while also enhancing customer satisfaction.

When I recite these principles and practices, as I occasionally do, I sometimes think how my education prepared me for my career. There were plenty of physics, calculus and engineering classes, and without them I could not have enjoyed what success I have. But experience, too, is a great teacher. What we really needed to learn, we came to learn quickly on our own -- that the world is ever-changing and you and your company must adapt in order to survive and succeed.

Ingersoll-Rand has overcome the challenges presented by structural change in the world economy during the 1980’s and emerged a stronger company, positioned for continued leadership.

And I guess we’ve been doing a good job. Recently, Forbes magazine said: “Ingersoll-Rand is a splendid example of how, at its best, American industry has responded to the challenge of international competition.” But despite its proud history, our company cannot continue to generate great achievements on the strength of its current success and its name alone.

Just as surely, we as an industry cannot rely solely on the innovations of the past, the technologies, products, practices and policies of the past.

The world is not static. And our minds should not be either. Let us join to renew the fight to advance our industry, and our technology -- and by virtue our selves and our society.

You -- are the leaders of today’s businesses, and tomorrow’s. You are meeting part of your leadership challenge by attending this conference. You can continue your commitment when you leave this meeting by taking your new-found knowledge and putting it into practice -- to solve new problems with new solutions, to fight new wars with new behavior.

Thank you.