

# Blacoh Industries: Customer-focused flow control solutions



*The second part of Blacoh Industries is Blacoh Surge Control and it focuses on issues of surge and water hammer in large systems.*

**Blacoh Industries, a California based company, provides customers with safe and reliable engineered products that improve the performance of fluid processing systems. The company's team-driven and knowledgeable staff assists clients with the implementation and maintenance of these systems across a wide range of industries including oil & gas, water & wastewater, chemical & petrochemical and food & beverage. *Stainless Steel World* had the opportunity to speak with Mr. Andrew Yeghnazar, President of Blacoh Industries, who shared the company's strategy of diversification & globalization, the importance of commercializing new technologies and Blacoh's drive to solving system needs.**

*By Candace Allison*

### **Three successful businesses**

"Let me start by saying that Blacoh was founded in 1976," Mr. Yeghnazar begins. "As a company we are celebrating our 40<sup>th</sup> anniversary and it's a really nice milestone. It's also nice that in this day and age we are a privately held company that is growing up very well in an environment where there are many larger companies eating up some of the smaller companies. So the fact that that we've been able to, not only be here forty years privately held, but also in the last two

years have established two new divisions of the company (*Blacoh Surge Control* and *Blacoh Metal Solutions*), we are very much on a strategic growth path." Blacoh Industries is the umbrella company that encompasses three individual, yet connected, business segments: *Blacoh Fluid Control*, which offers industrial products for pumping and fluid processing systems; *Blacoh Surge Control*, which provides customized engineering solutions for large pressure vessels in surge protection, pressure

regulation, storage and pump control; and *Blacoh Metal Solutions*, which sources and delivers the finest quality tube and pipe in a variety of forms, alloys and finishes. These three segments work together to succeed as one of the world's premier sources for fluid control solutions. Yeghnazar explained that Blacoh Fluid Control was the original company that began operations 40 years ago in Riverside, California, USA. From the very beginning Blacoh Fluid Control offered products such as pulsation dampeners,



*Having a fully comprehensive approach to flow control solutions is part of Blacoh Industries' primary goal of being a one-stop shop for customers.*

(OEMs). Yeghnazar further detailed that Blacoh Fluid Control has key global distributors around the world. Blacoh Surge Control focuses on issues of surge and water hammer in large systems. This segment deals with computer modelling and proof of design in order to provide customers, such as large engineering firms, water municipalities or newly developed cities, with various forms of computer surge analysis. In this respect, Blacoh Surge Control works more on the engineering services side, consulting with clients. Some of the product solutions offered include massive vessels which can hold up to 40,000 gallons of liquid. It's a much larger scale compared to any of the products on the Fluid Control side. Yeghnazar clarified that this section addresses a huge industry and holds great opportunities for growth, as most pumping systems encounter the problems of surge and are looking for solutions. Blacoh Metal Solutions specializes in

tube and pipe in a variety of types and forms such as precision welded, welded & drawn, seamless, straight lengths, coils and U-bends. Each product is also available in a wide range of corrosion resistant alloys like stainless steel, duplex nickel alloys, super austenitic, ferritic/super ferritic and titanium. These tubes and pipes are sold all over the world through the assistance of key vendors and manufacturers, which is all part of the Blacoh Industries growth strategy.

#### Globalization & diversification

All three businesses, including the manufacturing facilities, are headquartered in California. However, Blacoh's back offices and accounting are located in nearby Arizona. There are also additional facilities in South Carolina as well as Indianapolis, Indiana. Internationally, Blacoh has a presence in Austria, Germany, Argentina, South Korea, China and Australia. There are also future plans to expand the presence into both India and the Middle East.

accumulators, seals and valves. Items that are all integral in helping achieve system optimization. This segment of the business works through a global distribution network where Blacoh manufactures for Original Equipment Manufacturers



*The Surge Shield™ is specifically designed to address challenging water hammer conditions to provide a long term solution for maintaining pump and piping integrity.*



*SurgeWave™ Transient Monitoring System, which can detect and record transient pressures up to 100 times per second, provides graphical analysis of all recorded data and sends system alerts.*

## Blacoh's Product Portfolio

### *Blacoh Fluid Control:*

SENTRY Pulsation Dampeners & Surge Suppressors  
 SENTRY CIP Sanitary Dampeners  
 SENTRY Inlet Stabilizer  
 SENTINEL Diaphragm Seals  
 SENTINEL Back Pressure & Pressure Relief Valves  
 SENTINEL Calibration Columns  
 SENTINEL Injection Quills  
 SPILLSTOP Leak Containment System  
 AODDampener™

### *Blacoh Surge Control:*

Bladder Type Surge Vessels  
 Surge Shield™ Surge Vessels  
 Computer Surge Analysis  
 SurgeWave™ Monitoring System  
 Air Vacuum Valves  
 Control Valves  
 Check Valves  
 Actuated Valves  
 Control Panels

### *Blacoh Metal Solutions:*

#### *Tube & Pipe:*

Precision Welded  
 Welded & Drawn  
 Seamless

#### *Forms*

Straight Lengths  
 Coil  
 U-Bend

#### *Materials*

Stainless steel, Duplex Stainless Steel, Nickel Alloys, Super Austenitic, Ferritic/ Super Ferritic and titanium

#### *Sizing*

*Outer Diameter* - From 0.0625" (1.59 mm) to 8" (203.2 mm)

*Wall Thickness* - From 0.010" (0.25 mm) to 0.225" (5.7 mm)

*Straight Lengths* - Up to 90 feet (27 m)

*Coil Sizes* - Up to 80,000 feet (24 km)

#### *Finishes*

Full-finished & bright annealed, mechanical polished and electropolished

#### *Tempers*

Solution annealed (standard for most products), hard drawn, dead soft, stress relieved and low residual stress

Along with expanding the company's presence overseas, Blacoh Industries is always looking at new ways to diversify the business. Yeghnazar explained, "As a company we look at diversifying as much as possible. We are showing growth, which is great but it is because we are in different fields like water & wastewater, chemical & petrochemical, food & beverage, etc. By being balanced that way, we know we aren't in a 'faucet business' that just gets turned on and off when one particular market is down." The company's growth in the past year can also be credited to that fact that Blacoh began to globalize approximately four years ago. Yeghnazar maintained that it had always been part of the strategic vision for the company. Prior to 2012, Blacoh was very much an American-centric organization that mainly focused on being the leader in the area of pulsation dampening and fluid control. It was a conscious decision on the part of Yeghnazar and his team to invest in expanding the company profile and product offerings in addition to bringing on experts in specific locations who could help develop local business. He was quick to confirm that he is not focused on building Blacoh Industries solely in California; that is, he won't be bringing everything in-house. "We have invested in new equipment like CNC and welding machine. But what we have actually done is go through a process of applying the Lean Six Sigma approach to cutting out waste," he said. "So for example, we have worked very closely with our supply chain. We source our products, mainly for Blacoh Fluid Control, all domestically within the USA. I'm not looking at growing our facility in California as much as I am looking to develop strategic partnerships around the world. The idea is to let people who are specialists in what they do focus on that and for Blacoh to keep this operation as simple and lean as possible."

### **Innovative products**

Through its three business segments, Blacoh Industries offers clients a wide range of dependable products and solutions to help with almost any flow control need. But there are three products in particular that should be highlighted. The first is Blacoh Fluid Control's SPILLSTOP™ leak containment system. This fully pneumatic system safely captures leaked product and automatically shuts down failed pumps to eliminate costly product loss and prevent hazardous spills

from occurring. The device attaches directly to the exhaust of an AODD pump. When the pump diaphragms fail, process fluid that would have spilled out through the pump's exhaust is instead captured in the product's internal receptacle. Yeghnazar explained that safety is a very big deal for everyone at Blacoh Industries, and this is a product everyone is proud of. This spill containment device is currently being used as a best practice throughout The DOW Chemical Company's locations. Also available through Blacoh Fluid Control is the newly launched AODDampener™, which targets the Air-Operated Double Diaphragm pump market. The new product has a 316L stainless steel housing and PTFE diaphragm but is competitively priced to cost less than most other plastic or metal units. The single configuration allows the unit to handle most AODD applications and is also suitable for off-the-shelf capabilities. Yeghnazar believes that this innovative new product will have a significant impact in the global market. Broadening the size scope of their product line, Blacoh has developed Surge Shield™, a new line of standardized bladder vessels to address surge and water hammer found in large pumping systems. These larger size vessels are available from 25-500 gallons and are ideal for the petrochemical, industrial, wastewater/potable water, and mining processes. Another exciting new product that will be added to the Blacoh Surge Control product



*Blacoh Metal Solutions segment. This area specializes in tube and pipe in a variety of types and forms such as precision welded, welded & drawn, seamless, straight lengths, coils and U-bends.*



*Blacoh Surge Control and it focuses on issues of surge and water hammer in large systems. This segment deals with computer modelling and proof of design in order to provide customers, such as large engineering firms, water municipalities or newly developed cities, with various forms of computer surge analysis.*

line is the SurgeWave™. Yeghnazar detailed that Blacoh has just bought the rights to this product, which acts like a stethoscope for a pumping station. It allows transient wave analysis to be applied to fluids and is an example of one of Blacoh's engineering service products. For example, if a city is dealing with waste/sewage and lift stations when there are transient events taking place, by using the SurgeWave™ someone would be able to go in and monitor any activity, or spike in activity, taking place in order to address and solve the problem.



*Blacoh Surge Control works more on the engineering services side, consulting with clients. Some of the product solutions offered on this side of the business include massive vessels which can hold up to 40,000 gallons of liquid.*

### Commercializing new technologies

The SurgeWave™ is a prime example of the importance that Blacoh Industries invests in commercializing new technologies, especially in the realm of addressing leaks that occur within piping systems. Yeghnazar explained that every year in the USA there are 240,000 pipe leaks, costing approx. USD2.8 billion to fix, but that still equals a water loss of approximately 7.7 billion gallons every single day. One of Blacoh's missions is to find ways of preventing this loss, which has quickly become a global epidemic. "Part of the Blacoh Surge Control strategy is getting involved in technologies that help identify where these leaks are, or better yet, to predict where they are going to happen and find ways of actually preventing leaks from happening," Yeghnazar stated. He further detailed, "That kind of approach requires a

disruptive collaboration to take place. That is, working with people from all different areas. This is where you have academia coming up with new ideas but they don't know how to bring it to market, then you companies like us trying to come up with a product but not always able to get it where it's needed. Trying to bring all these groups together is the approach we are taking where you truly have a fully comprehensive approach to fluid control and prevention."

Blacoh understands that there is also a greater need in the market place for water-related technologies outside of what Blacoh Industries is currently producing. It is reported that globally, 783 million people do not have access to clean water and almost 2.5 billion do not have access to adequate sanitation. With that number continuously growing, there is still much more that can be done. "We are open to individuals approaching us with new product ideas and technologies, so we can help to bring those ideas to a larger market to address these demands," says Yeghnazar.

### Looking ahead

This fully comprehensive approach to flow control solutions ties in with Blacoh Industries' primary goal of being a one-stop shop for customers. Being customer-focused is key to this approach because every client is considered an individual by the team-driven Blacoh staff. The company also offers an online training program, entitled Blacoh University, with videos on various water and fluid related topics beyond just the Blacoh product offering. Their goal is to provide educational and useful resources in the industry around the world in various languages. Communication and being connected to the global marketplace are crucial factors to the company's growth.

### Blacoh Industries at a glance

<b>Company name:</b>	Blacoh Industries
<b>Founded:</b>	1976
<b>Global Headquarters:</b>	601 Columbia Ave, Building D, Riverside, California 92507 USA
<b>Products:</b>	<i>Blacoh Fluid Control:</i> Pulsation dampeners, surge suppressors, inlet stabilizers, accumulators, diaphragm seals & valves and leak containment <i>Blacoh Surge Control:</i> Surge vessels, monitoring systems, air vacuum valves, control valves, actuated valves and control panels <i>Blacoh Metal Solutions:</i> Straight lengths, coils and u-bend tube and pipe available in precision welded, welded & drawn and seamless
<b>Industries:</b>	Chemical & petrochemical, food & beverage, oil & gas, power generation and water & wastewater, etc.
<b>Website:</b>	www.blacoh.com