Spirax-Sarco Engineering plc

Spirax-Sarco Engineering plc
Capital Markets Day

Thursday 31st May, 2018

AFLEX HOSE

GESTRA
Engineering steam performance

CHROMALOX
Advanced Thermal Technologies

Engineering Opportunities

Welcome

Kevin Boyd

Group Finance Director

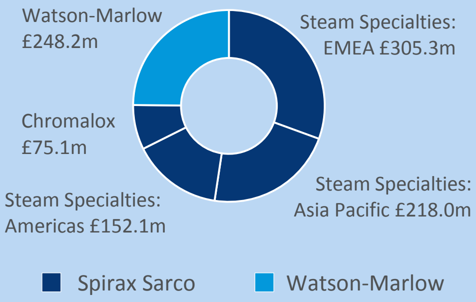
Engineering Opportunities

Spirax-Sarco Engineering plc
www.spiraxsarcoengineering.com

Spirax-Sarco Engineering plc

World leader in the control and efficient use of steam, electrical thermal energy solutions and peristaltic pumping and associated fluid path technologies

- **2017 Group Sales: £999 million**



- **Operating Profit: £235.5 million***
- **Operating Margin: 23.6%***

* Based on Group adjusted operating profit

- **Market Capitalisation: £4.5 billion**

Three significant strategic acquisitions:

- **Aflex Hose -** enterprise value: £61 million (November 2016)
  - specialists in the design and manufacture of PTFE-lined flexible hoses
  - extends Watson-Marlow's fluid path portfolio
  - 2017 sales: £25.7 million
- **Gestra** - enterprise value €186 million (May 2017)
  - steam system specialist and technology leader in advanced industrial boiler controls
  - increases Spirax Sarco's market share and brings advanced boiler control technologies
  - pro forma 2017 sales: £77 million
- **Chromalox -** enterprise value US$415 million (July 2017)
  - specialist provider of electrical products, systems and solutions for industrial heating and temperature management
  - significantly expands addressable market
  - pro forma 2017 sales: £146 million

Engineering Opportunities

Group structure

Showing recent acquisitions: Aflex Hose, Gestra and Chromalox

Spirax-Sarco Engineering plc

- **spirax sarco**
  - Industrial and commercial steam systems
    - spirax sarco — First for Steam Solutions
    - GESTRA — Engineering steam performance
  - Process heating and temperature management solutions
    - CHROMALOX — Advanced Thermal Technologies
- **WATSON MARLOW — Fluid Technology Group**
  - Niche peristaltic pumps and associated fluid path technologies
    - WATSON MARLOW Pumps
    - WATSON MARLOW Tubing
    - Bredel Hose Pumps
    - Alitea OEM Pumps
    - Flexicon Liquid Filling
    - masosine Process Pumps
    - BioPure
    - ASEPCO
    - Flow Smart
    - AFLEX HOSE

AGENDA

10:15 – 11:30	AFLEX HOSE	**Presentation:** Jay Whalen (President, Watson-Marlow Fluid Technology Group) Sean Coyne (Sales & Marketing Director, Aflex Hose) **Q&A** **Product demonstration**
11:30 – 11:50		***Coffee break*** *(Siemens Room)*
11:50 – 13:00	GESTRA	**Presentation:** Maurizio Preziosa (Divisional Director, Gestra) Lutz Oelsner (Managing Director, Gestra Germany) **Q&A** **Product demonstration**
13:00 – 14:00		***Lunch*** *(Siemens Room)*
14:00 – 15:40	CHROMALOX Advanced Thermal Technologies	**Presentation:** Nicholas Anderson (Group Chief Executive, Spirax-Sarco Engineering plc) Mike Sutter (President, Chromalox) **Q&A** **Product demonstration**
15:40 – 16:00		***Coffee break*** *(Siemens Room)*
16:00 – 17:00	spirax sarco First for Steam Solutions Spirax-Sarco Engineering plc	**Presentation:** Neil Daws (Executive Director EMEA, Spirax Sarco) **Wrap-up and Q&A:** Nicholas Anderson (Group Chief Executive)
17:00 – 18:00		***Drinks and Canapés*** *(Siemens Room/Terrace)*

Engineering Opportunities

Aflex Hose

Jay Whalen, President,

Watson Marlow Fluid Technology Group

Aflex Hose – the world leader in PTFE hoses

- Acquired November 2016
- Located in Yorkshire
- 260 employees in the UK, small stock and assembly company in the USA
- 2017 turnover of £25.7m; ahead of expectations

WMFTG Strategy	Aflex fit	
Market sector sales focus	Current route to market: 3rd party distribution Significant growth opportunity via sectorised WMFTG direct sales companies	✓
Rapid geographical expansion	WMFTG sales operations open up new markets to Aflex; Aflex volume allows WMFTG sales companies to expand	✓
Accelerate development of breakthrough products	Good pipeline of new product development, stepping up focus even further	✓
Excellence in Manufacturing and Global Process	Key expertise in hose manufacture that can be used round the rest of WMFTG; opportunity to invest in facilities	✓
Selective product and market sector diversification	An obvious target for acquisition that had been in WMFTG sights for some time	✓

AFLEX HOSE

Aflex Hose - fit to the WMFTG product range

- Connects vessels to vessels
- Connects pumps to vessels
  - cross selling opportunities with other WMFTG fluid path products

- Aflex hoses complement FlowSmart silicone process hoses
- FlowSmart silicone hoses cover less demanding applications
- Aflex hoses give higher purity and higher chemical compatibility
  - opportunities for up selling
  - push the enhanced value proposition of an Aflex hose

AFLEX HOSE

Aflex Hose – alignment to WMFTG sectorised sales

- Key markets of Biopharm and Industrial
  - Rapid success selling through WMFTG Biopharm direct sales, USA
  - Strong start with WMFTG Industrial direct sales, France
  - Scale up of conversions from 3rd party distribution to WMFTG direct sales in 2018
- Both synergy and opportunity
  - Expanded Biopharm fluid path; Aflex stronger in upstream media preparation; WMFTG sales stronger in process and downstream purification
  - Same customer base, leverage reputation and access via direct selling

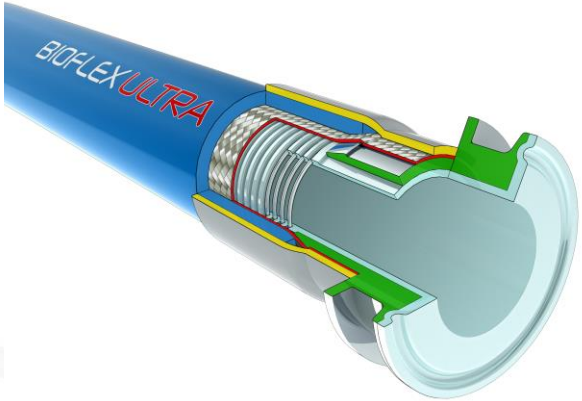
AFLEX HOSE

Aflex Hose – synergy in supply operations

- Aflex: expertise in end fittings for hoses in demanding applications
  - production of fittings for FlowSmart hoses switched to Aflex
  - utilising Aflex hose configuration assembly expertise for FlowSmart and BioPure
- Aflex: strong production engineering and intellectual property on hose manufacture and assembly
  - leveraging knowledge to improve related processes around WMFTG

- Investing in the future; planning permission submitted for new 16,200m² Aflex Hose facility in Yorkshire
  - consolidating current four sites to one
  - increase production capability
  - improve efficiency
  - Net capex c.£18 million

AFLEX HOSE



Aflex Hose Ltd

Sean Coyne

Sales & Marketing Director

Who is Aflex Hose?

- Manufacturing PTFE hose for over 40 years
- World’s most technically advanced range of PTFE hose products
- Complete control of the process from raw materials to finished hose assemblies
- Most reliable choice for process fluid transfer
- Our brand is instantly recognised and is standardised in manufacturing plants worldwide
- Unrivalled ability to meet our customers’ specific needs
- Used in countless industries and applications

AFLEX HOSE

Aflex evolution

People

- 1973 – 4 Employees
- 2017 – 280 Employees

Revenue

- 1973 - £0
- 2010 - £11m
- 2017 - £25.7m

Products

- 1973 – 1 market, 1 product = Smoothbore
- 2017 – multiple markets, 7 products = Bioflex Ultra
  Corroflon
  Pharmaline N&X
  Corroline+
  HyperlineFX
  Smoothbore
  Visiflon

Production

- 1973 – 1 facility = 60,000sqft
- 2017 – 4 facilities = 120,000sqft

AFLEX HOSE

New factory

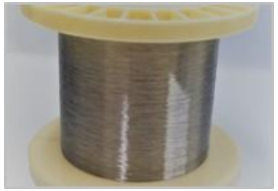
16,200m²

AFLEX HOSE

From raw materials to finished products


SS Bar


PTFE Granules


Wire


Electropolished end fittings


Extruded Liner

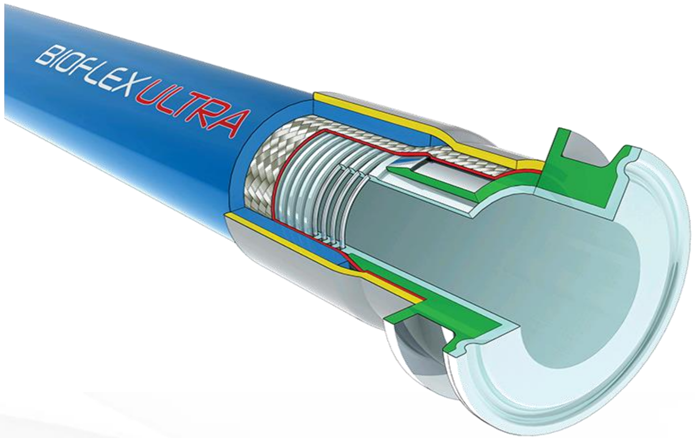

Braiding

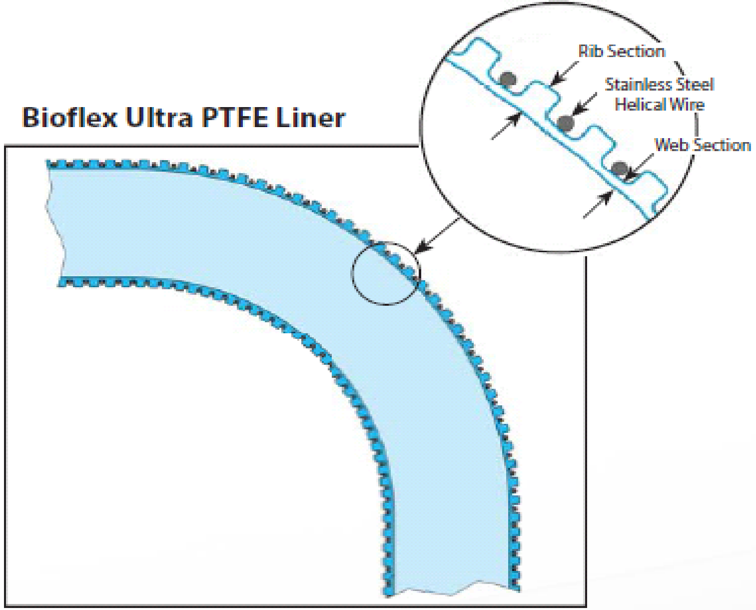

Braided Hose

Bioflex Ultra RC

AFLEX HOSE

Aflex Non-Bonded PTFE Hose





- Convoluted outer for maximum flexibility
- Smooth liner for maximum flow
- PTFE right through the end connector – maximum purity and chemical resistance
- Everything customers want from the fluid path with our patented design

AFLEX HOSE

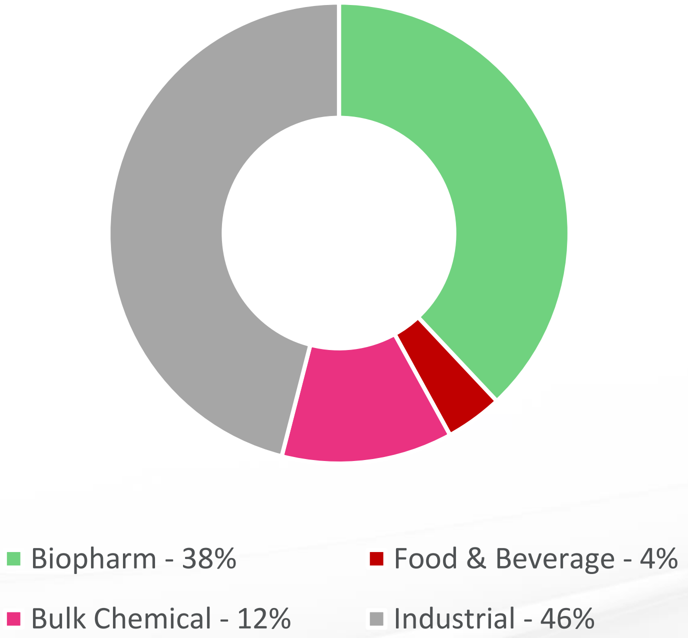
Markets

- **Biopharm**
  Vaccine manufacture » Final product transfer » Uninterrupted hygienic flow

- **Food & Beverage**
  Yoghurt production » Filling lines » No volumetric expansion resulting in consistent product dispensing

- **Bulk Chemical**
  Petrochemical manufacture » Hydrofluoric acid transfer » Chemical and permeation resistance

- **Industrial**
  Battery manufacture » Organic compound transfer » Robustness and reliability



AFLEX HOSE

Europe & Middle East

2017 Revenue
£14.4 million

- Direct sales in the UK
- France – Previously one Aflex sales engineer and two sales agents. Now direct sales with 19 WM customer facing sales specialists
- Distribution throughout EMEA
- Further conversion from distribution to direct scheduled

AFLEX HOSE

Asia Pacific

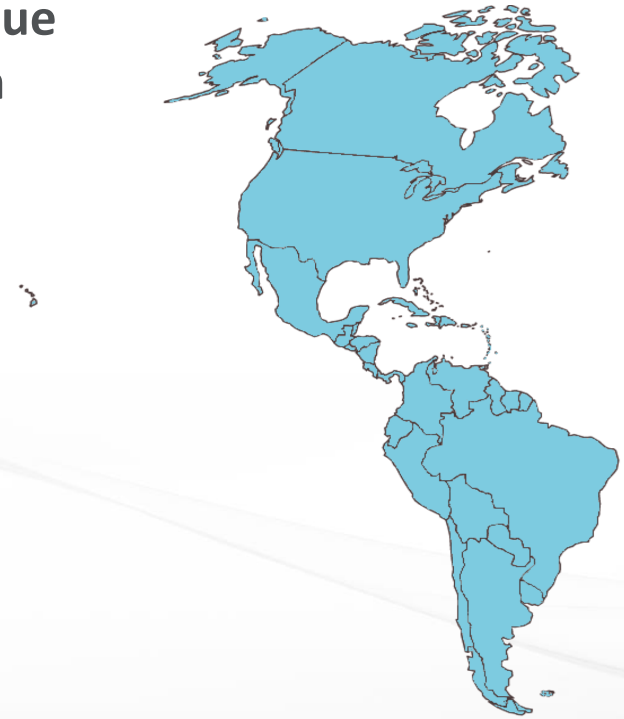
2017 Revenue
£1.6 million

- Converted from a distributor in Singapore to WM direct sales
- Singapore now acts as a hub for S.E. Asia, giving Aflex access to Taiwan, Malaysia, Indonesia, Thailand and Vietnam
- Korea WM direct sales
- Distributors in Japan, China, India, Australia and New Zealand
- Further conversions from distribution to direct scheduled

AFLEX HOSE

Americas

2017 Revenue
£9.7 million



- Converted from distribution to WM direct sales in New England, USA, an important Biopharm hub, resulting in more focus and dedication on Aflex products
- Distribution network throughout USA, Canada, Mexico, Chile and Brazil
- Further conversions from distribution to direct scheduled

AFLEX HOSE

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Aflex Hose

The perfect addition to the Watson-Marlow fluid path family!

- Aflex Hose assemblies:
  - chemical resistant flexible connections to Watson-Marlow chemical dosing peristaltic pumps
  - complete the sterile fluid path for Watson-Marlow peristaltic pumps when flexible hoses required
  - connect to Asepco valves in the hygienic fluid path
  - connect to Bredel Hose Pumps for the transfer of viscous media
  - can be used with BioPure Clamps and Gaskets

- Aflex has the world's most hygienic hoses that can be connected to MasoSine Certa – the world's most hygienic sine pump

AFLEX HOSE

Gestra Division

Maurizio Preziosa

Gestra Divisional Director

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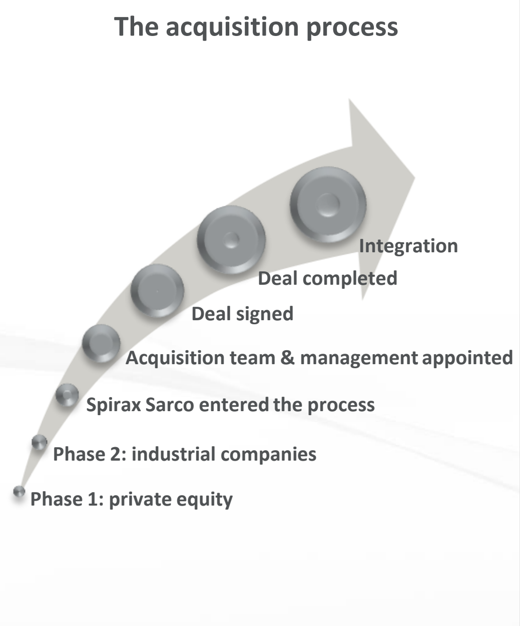
Gestra acquisition

The process

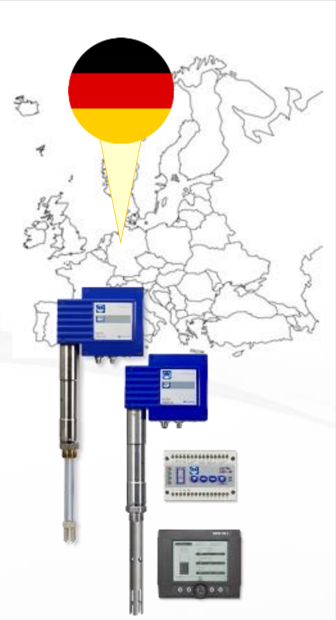


- August 2016 Flowserve decided to sell Gestra
- Phase 1: private equity companies
- Phase 2: expanded to industrial companies
- September 2016 Spirax Sarco Group involved
- Acquisition project team appointed; Product Management, Sales General Managers and Supply team members
- Potential Gestra Divisional Director appointed to define:
  - ➢ the acquisition business case
  - ➢ a detailed acquisition programme

GESTRA®

Gestra acquisition strategic rationale

The intrinsic value of Gestra



- Strong, globally recognised German brand and product range
- Very well respected in the steam market
- Leading player in Germany, the biggest European industrial market
- World-leading boiler control technology and product range
- World-leading disk check valve technology and product range
- World leader in Chemical and OEM boiler maker markets
- World leader in Power Generation market

GESTRA®

Gestra acquisition strategic rationale

The added value of Spirax Sarco Group to Gestra

- Once-in-a-generation opportunity to acquire a direct steam competitor
- Spirax Sarco strategic fit with Gestra
  - Vision: recognized by customers as the world leader in Steam and Thermal Energy Solutions
  - Mission: to ensure a sustainable business by improving customers' performance using our expertise in Steam and Thermal Energy Solutions
  - Strategic thrusts and core values
- Spirax Sarco business development over the last 5-8 years applicable to Gestra
- Spirax Sarco knows what to do and how to do it

Gestra long-term strategy

Pillars underpinning the strategy

1. Operating as a stand alone division of the Spirax Sarco Steam Specialties business
2. Dual brand strategy, market sector driven
3. Geographical expansion
4. Product range platforms
5. Cross selling opportunities
6. Manufacturing, supply chain and back office synergies

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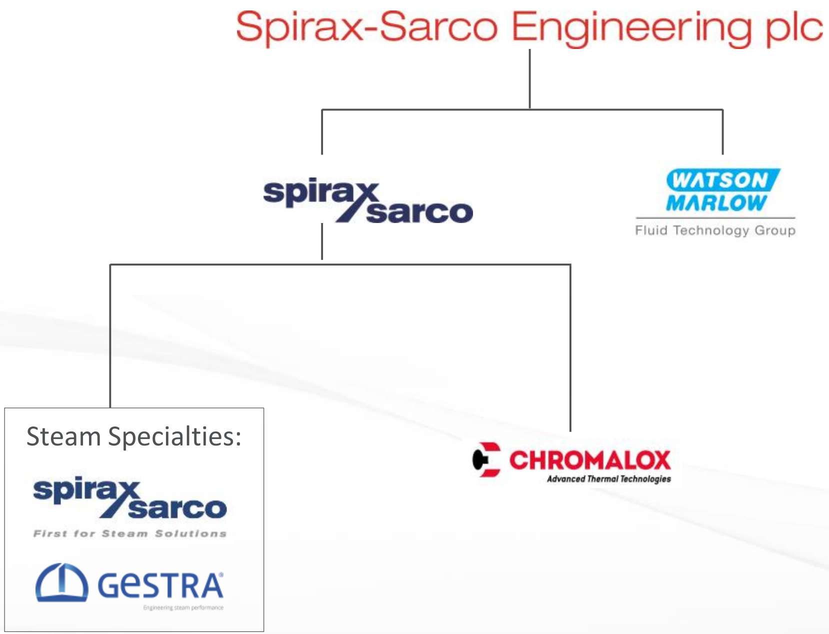
Gestra long-term strategy

1. Operating as a stand alone division of the Spirax Sarco Steam Specialties business



- Creation of the new Gestra division
- Dedicated acquisition programme implementation
- Focused targets and own P&L
- No distraction from key objectives for the rest of the business
- Autonomous but not independent

GESTRA

Gestra long-term strategy

2. Dual brand strategy, market sector driven

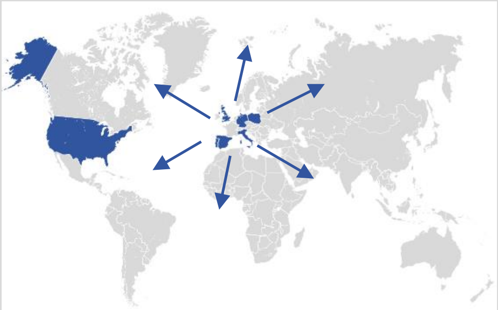
GESTRA Engineering steam performance

spirax sarco First for Steam Solutions

- Two brands in the steam market: Spirax Sarco and Gestra
- Both premium brands in the high end market
- Maintaining two autonomous organisations:
  - no changes from the customer perspective
  - no limitation of customer choice
- Gestra and Spirax Sarco focusing on complementary markets
  - Gestra playing on its strengths and competitive advantages
  - Spirax Sarco playing on its strengths and competitive advantages
- Applying sales force sectorisation used by Spirax Sarco

Gestra long-term strategy

3. Geographical expansion



Current locations:

- Germany
- Italy
- Poland
- Portugal
- Singapore
- Spain
- USA
- UK
- direct export to 45 countries

- Gestra brand and product range globally recognised:
  - sales to large German OEMs
  - products specified by multi-national German end users with plants all over the world
  - German precision engineering
- Current business in several countries captive and reactive
- Establishing Gestra direct sales operations to proactively penetrate new markets
- Leveraging Spirax Sarco's global footprint and capability to further expand Gestra

GESTRA®

Gestra long-term strategy

4. Product range platforms

- Leveraging the best Gestra product ranges
- Creating a platform for Spirax Sarco and Gestra product ranges
- Strategic product differentiation where appropriate
- Gestra world-leading technology and product ranges
  - ➢ boiler house controls
  - ➢ disc check valves
  - ➢ high pressure products
- Respecting the dual brand strategy and sector focus

GESTRA®

Gestra long-term strategy

5. Cross selling

- Phase 2 of the acquisition business plan, once dual brand strategy well established and accepted by the market
- Selling Gestra products in markets covered by Spirax Sarco
- Selling Spirax Sarco products in markets covered by Gestra
- Strategic product differentiation where appropriate

GESTRA®

Gestra long-term strategy

6. Manufacturing, supply chain and back office synergies

- Leverage manufacturing, supply chain and back office opportunities; non-visible to customers, not undermining dual brand strategy
- Purchasing & logistics: increased purchasing power for similar materials to leverage best deals
- Apply Spirax Sarco operational excellence programme in Gestra
- Apply Spirax Sarco EHS* best practice and standards in Gestra
- Synergies in non-customer facing functions: finance, HR, IT, infrastructure
- Creation of shared service units
- Benefits for both Spirax Sarco and Gestra

*Environment, Health and Safety

Gestra financial performance

	2017 under Spirax Sarco ownership	2017 pro forma
Sales	£51.5m	£77m
Profit	£7.6m	£11m
Operating Margin	14.8%	14.1%

Order intake increasing:

	2017 H2	2016 H2	Change
Orders	£40.3m	£37.1m	8.6%

Future performance

- Correlation with Industrial Production (IP) growth rates
- Expect to grow in line with IP, 2018
- Anticipate small margin decline in 2018 ~100 bps due to higher levels of investment
- Margin to grow to Group level over 10 years

Gestra

Engineering Steam Performance

Lutz Oelsner

Managing Director – Gestra Germany

GESTRA®

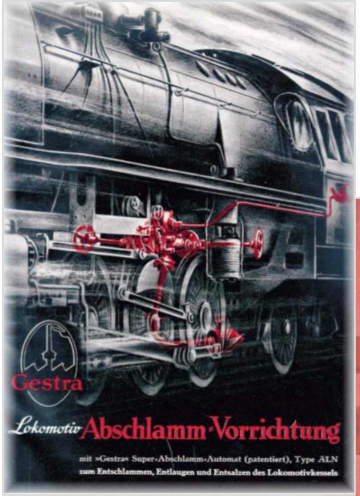
Contents

- History
- Sales and markets
- Products and applications
- Gestra’s global operations
- Gestra – positioned for growth!

GESTRA®

History

- Long, distinguished history engineering steam products
- Founded on safe use of steam in industrial applications
- First products: steam traps
- Designed first safety critical Automated Boiler Controls
- Technical leader for difficult control valve applications
- Market leader in Germany



GESTRA®

History

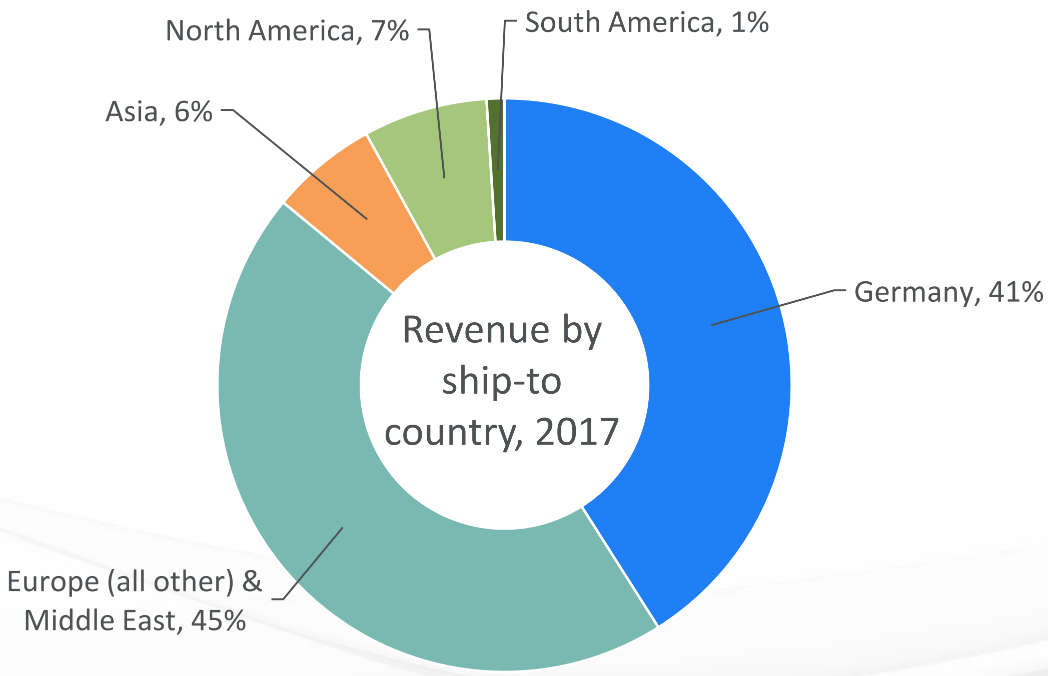
1902	Company founded in Germany by Messrs. Gerdts & Strauch
1956 - 1961	Expansion into France, Italy, England, Spain, South America
1968	GESTRA KSB Vertriebsgesellschaft formed
1976	GESTRA Inc. founded in the USA
1981	Conversion into GESTRA AG by purchase of GESTRA KSB Vertriebsgesellschaft shares
1988	SIEBE plc acquired GESTRA AG
1994 - 1995	Controls capability strengthened – UNIVAM GmbH and P&W Ventil & Regler Service GmbH acquired
1999	SIEBE plc and BTR merged to form Invensys plc
2002	GESTRA acquired from Invensys plc by Flowserve Corporation
2017	GESTRA AG acquired by **Spirax-Sarco Engineering plc** for €186m (£160m)

1902 1929 1952 1980

GESTRA

Sales and markets

Gestra 2017
Revenue €87.9m



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Products and applications

Condensate Management products

Application: all industrial steam systems

Markets: Chemical, Power Generation, OEMs & General Industrial

- Wide product range to solve customer problems
- Various technologies to suit different applications
- Engineered and manufactured to highest standards
- Strong reputation with customers

GESTRA®

Spirax-Sarco Engineering plc
www.spiraxsarcoengineering.com

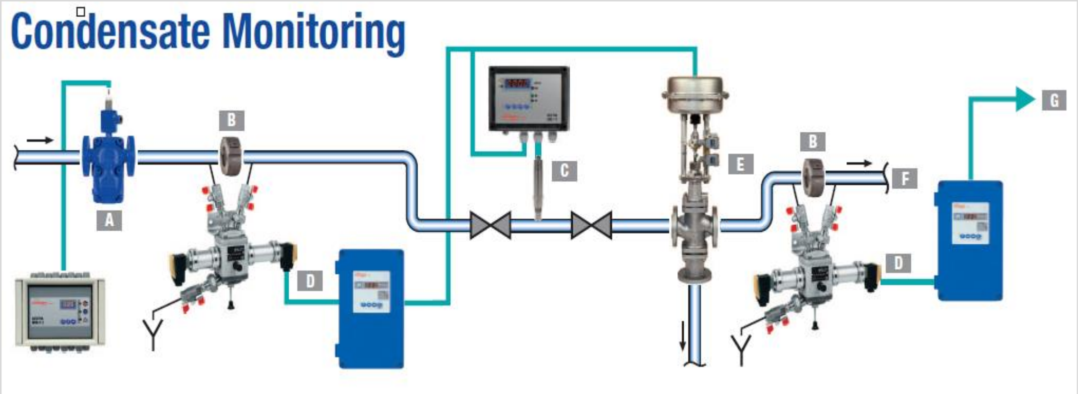
Products and applications

Products to improve steam system performance

Condensate monitoring application

Customer value:

- Improved steam system life
- Reduced water & treatment costs
- Sustainability improvements
- Improved levels of safety



GESTRA

Products and applications

Control and boiler automation products

Application: Boiler control, control of steam, water, condensate and other media

Markets: Chemical, Power Generation, OEMs & General Industrial

- Wide product range – temperature, pressure, line size
- Technology leader in Boiler Controls for high end applications
- Engineered and manufactured to the highest standards
- Safety critical control products
- Manufactured and accredited to the highest safety standards

GESTRA®

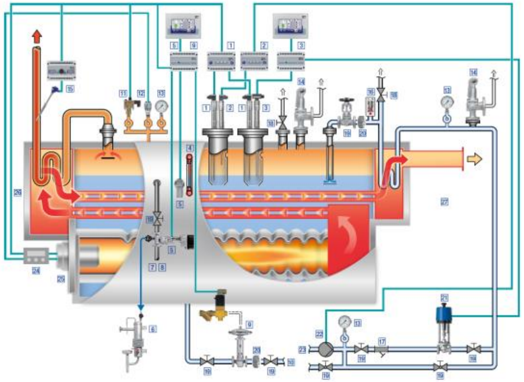
Products and applications

Products to give safer, more efficient steam production

Automated Boiler Control application

Customer Value:

- Maximised reliability and steam generation
- Reduced emissions
- Lower energy bills
- Improved safety
- Improved reliability
- Improved productivity



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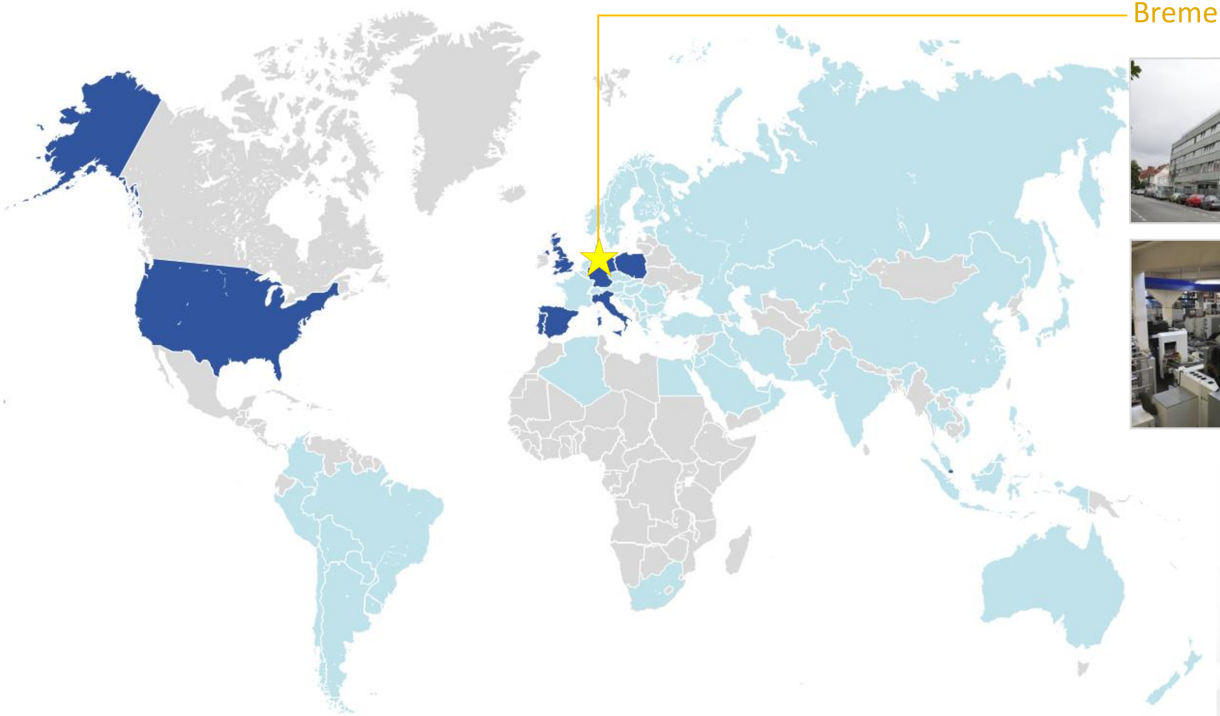
Gestra's global operations

- Manufacturing and HQ in Bremen, Germany
- Strong direct sales presence in Germany, primarily distributors elsewhere
- Direct sales: 8 countries
- Distributors: 57 countries
- Good geographical growth opportunities

★ Global headquarters & manufacturing plant
■ Direct sales
■ Distributors



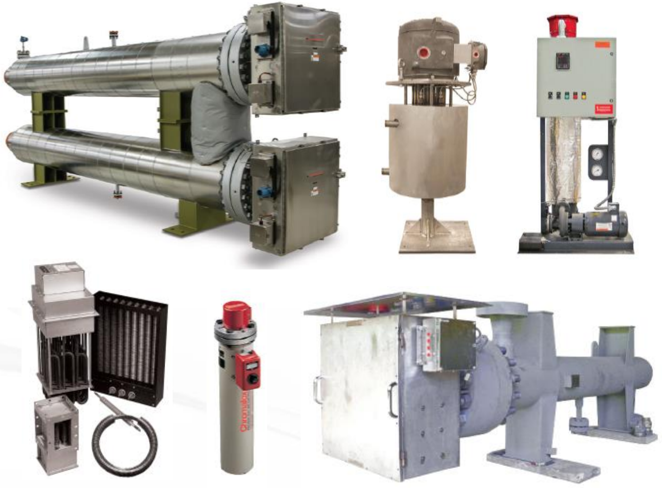
Bremen, Germany

GESTRA®

Gestra – positioned for growth!

- Successful transition; Gestra employees retained and new recruitment underway
- Great products with new product releases planned
- Strong in key markets of Chemicals, Power Generation and Boiler OEMs
- Geographical market growth opportunities

Gestra is positioned for growth!



Chromalox

Nicholas Anderson

Group Chief Executive

CHROMALOX
Advanced Thermal Technologies

Chromalox acquisition details

Completed 3rd July 2017

- Transaction Enterprise Value US$415 million (£319 million)
- 2016 performance: revenue US$201 million; EBITDA US$43 million; EBIT US$37 million
- Multiple of 9.7x EBITDA 2016
- Funded in cash; net debt to EBITDA ratio of 1.5 by 31st Dec 2017; 1.0 by 31st Dec 2018

Related acquisition

Strong strategic fit with long-term potential

Group acquisition strategy:

1. Create significant shareholder value
2. **Increase our addressable market into related sectors**
3. Expand the capabilities of our niche businesses through new technologies, skills or geographic coverage

Related acquisition: expands addressable market and accelerates opportunities for growth	
Direct sales business model	✓
Provide products or services where there is a high cost of non-performance to the customer	✓
Increase sales in our core markets	✓
Potential for geographical or technology expansion	✓
Capable of achieving Group margins	✓
Strong MRO content and recurring revenues	✓

Source: Acquisition criteria as set out in the Group's 2014 Annual Report

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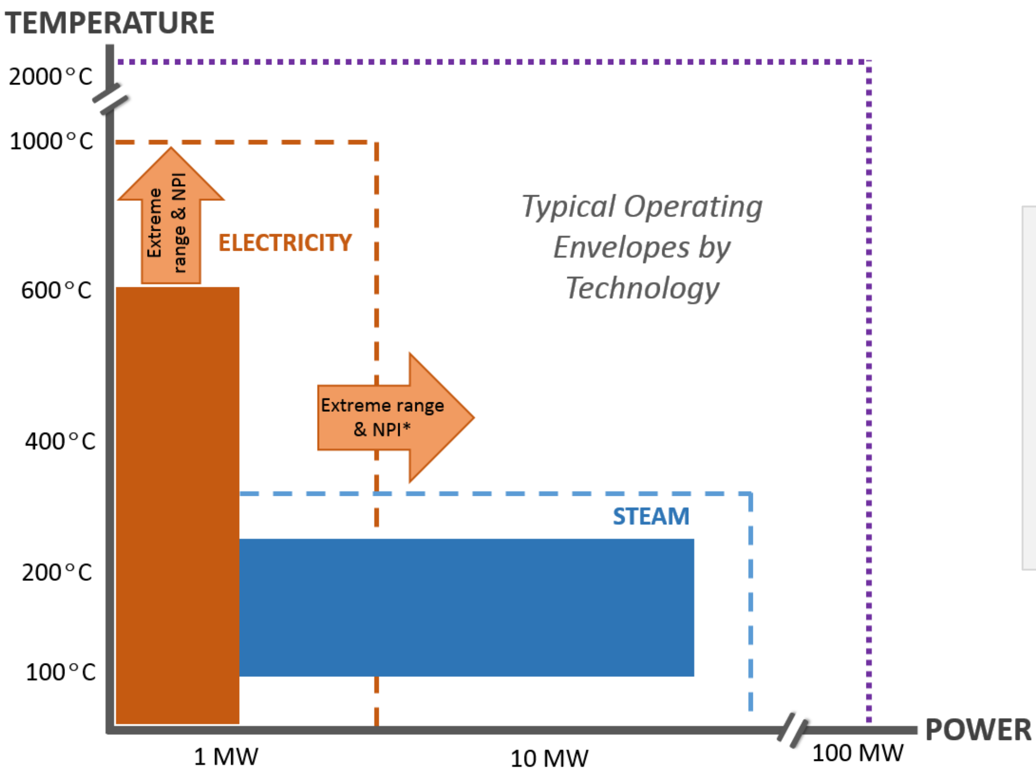
Advanced Thermal Technologies

Complementary technologies

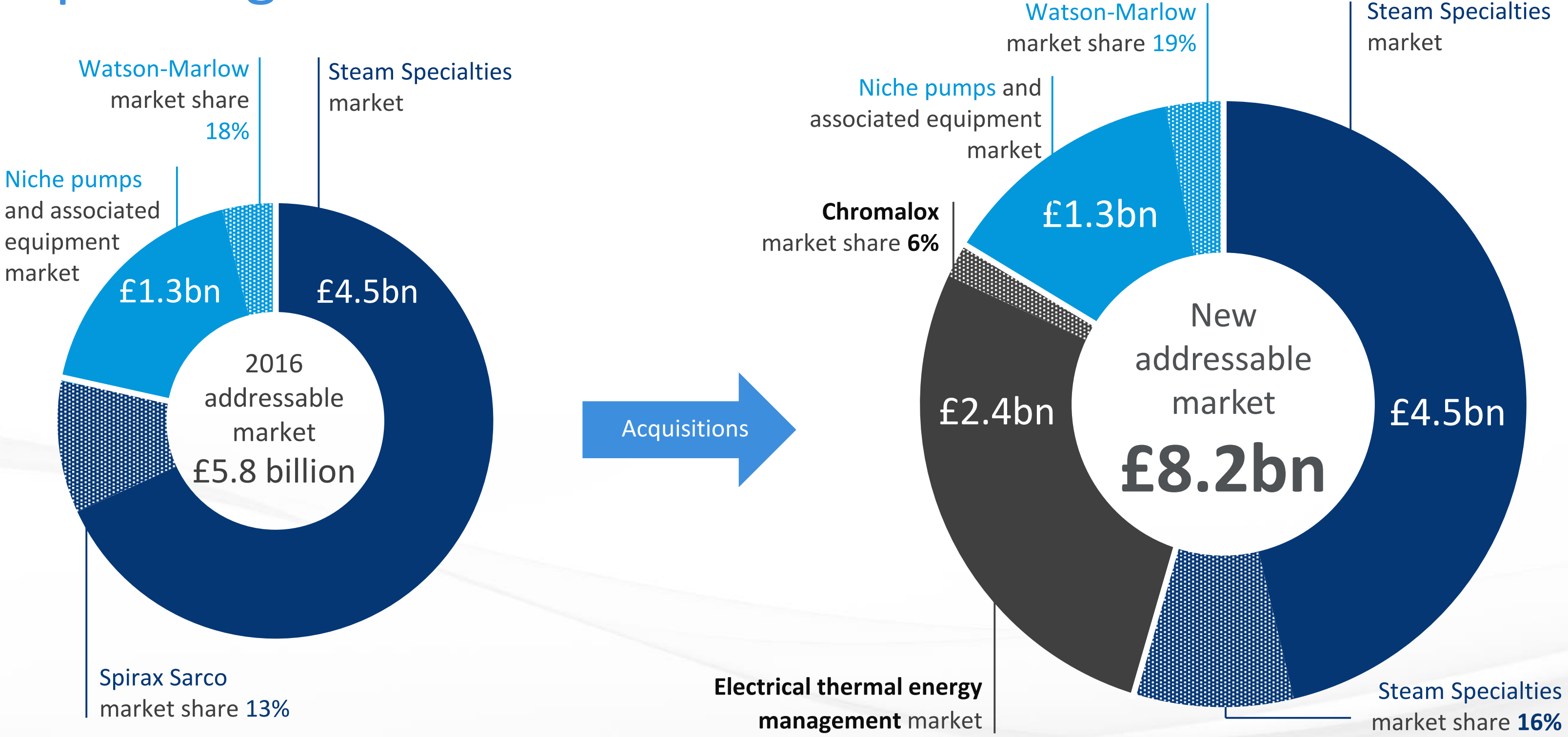


- **Thermal Energy Management:** electricity and steam have complementary uses
- Choice between heating mediums driven by application needs or customer circumstances

* New Product Introduction

CHROMALOX Advanced Thermal Technologies

Expanding our addressable market



Source: based on Spirax Sarco internal estimates

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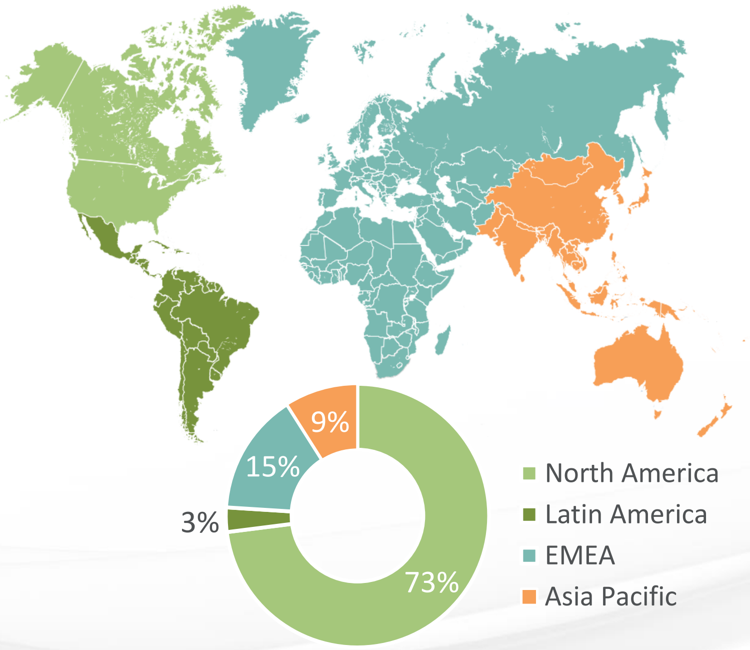
www.spiraxsarcoengineering.com

2017 Financial results

	2017	*Full Year 2017 For reference only*	
Revenue	£75.1m	*£146m*	*-2%*
Adjusted operating profit	£13.8m	*£26m*	*+3%*
Adjusted operating margin	18.4%	*17.8%*	*+80 bps*

- Performance in line with expectations
- Strong H2 demand; good sales and profit growth
- 18.4% margin post-acquisition
- Investing for growth

Revenue by destination of sales, 2017



CHROMALOX
Advanced Thermal Technologies

Integration and opportunities

Integration

- **Operating as a stand-alone division** within the Spirax Sarco business group
- Strong, long-serving executive team remains with business post-acquisition

Future opportunities

- New product development a key strategic priority
- Geographic expansion – leveraging Spirax Sarco's global footprint to grow direct sales presence
  - direct sales presence established in Spain (2017) and UAE (2018)
  - entering Brazil, Chile, Nordics and Benelux in 2018
- Commercial synergy opportunities
  - eg. Oil & Gas

Future performance

- Correlation with Industrial Production (IP) growth rates
- Expect to grow in line with IP, 2018
- Anticipate maintaining trading margin at 2017 FY level in 2018 despite investments and currency headwinds
- Margins flat in early years as we invest for growth; to grow to Group level over 10 years

CHROMALOX
Advanced Thermal Technologies

Spirax-Sarco Engineering plc
www.spiraxsarcoengineering.com

Chromalox

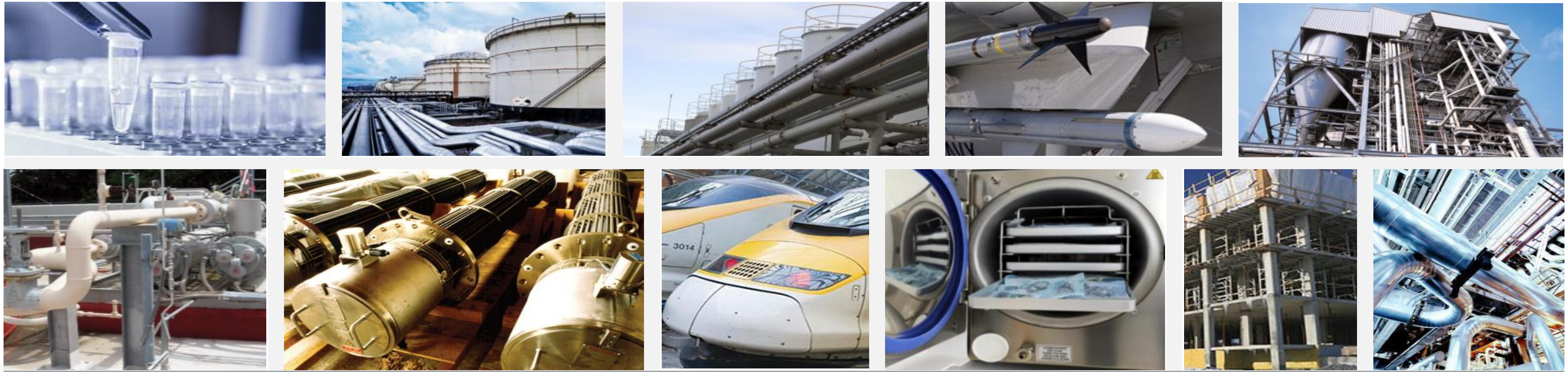
Mike Sutter

President, Chromalox

CHROMALOX Advanced Thermal Technologies

Agenda

1	Business Overview
2	Footprint
3	Commercial Strategy
4	Technology & Innovation
5	Product Segments
7	Conclusion & Transition To Product Demonstration



Section 1

Business Overview

CHROMALOX
Advanced Thermal Technologies

Spirax-Sarco Engineering plc
www.spiraxsarcoengineering.com

Leading provider of advanced thermal technologies

We combine advanced thermal technologies with strong application engineering to solve the most demanding mission critical heating problems

Who We Are

- Founded in 1917, headquartered in Pittsburgh, Pennsylvania
- Approx. 1,155 employees globally
- Provider of process heating and temperature management solutions for customers in diverse industrial markets

What We Do

- Design and manufacture the industry's broadest line of electric heating, heat trace and control products for diverse end segment applications
- Develop innovative new products and technologies to meet our customers' evolving needs

How We Do It

- **Focus**: To develop advanced thermal technologies engineered for the world's toughest industrial heating applications
- **Passion**: To find elegant solutions for difficult and unique problems
- **Mission**: To pioneer new thermal technologies and shape the future of industrial heating
- **Vision**: To become the only company that can deliver enterprise-wide electric thermal solutions for industrial customers anywhere in the world

CHROMALOX
Advanced Thermal Technologies

Spirax-Sarco Engineering plc
www.spiraxsarcoengineering.com

Comprehensive product and service offering

Chromalox is the only company with an established position in both industrial process heating and temperature management

	Industrial Heaters & Systems (IH&S)	**Component Technologies (CT)**	**Heat Trace (HT)**
Solutions	Process Heating	Component Heating	Temperature Management
2017 Sales *% of Total*	*52%*	*25%*	*23%*
Business Segment Description	• Delivers process heating solutions for mission critical industrial processes • Provides engineering and site services	• Delivers component heating solutions for industrial equipment manufacturers • Provides the technological foundation for more complex industrial heaters and systems	• Delivers temperature management solutions for piping, valves and tanks • Provides project management, engineering and site services
Representative Products	 **DirectConnect™** medium voltage technology  **XtremeDuty™** immersion tank flange heaters	 Flexible Heaters  Band and Nozzle Heaters	 **High Temp. Self-Regulating Heat Trace**  **IntelliTrace™** Control panel

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Global leadership structure

- **Mike Sutter** * — *President and CEO*
  - **Bill Kennedy** — *President – Americas*
    - **Rick Payne** — *VP – US*
    - **Scott Treser** * — *VP – LA & Canada*
  - **Thierry Desseignes** — *President – EMEAI*
  - **Lee Adams** — *President – APAC*
  - **Troy Dixon** * — *VP – Marketing & Business*
  - **Roger Ormsby** — *VP – Operations & Supply Chain*
  - **Chris Molnar** * — *VP – Product Mgt & Engineering*
    - **Mark Crombie** * — *VP – Heat Trace*
    - **David Taylor** — *VP – Industrial Heaters & Systems*
    - **Adam Heiligenstein** * — *VP – Component Technologies*
    - **Paul Neilson** — *Dir – Engineering*
  - **Craig Creaturo** — *CFO, VP – Administration*

* Today's presenters

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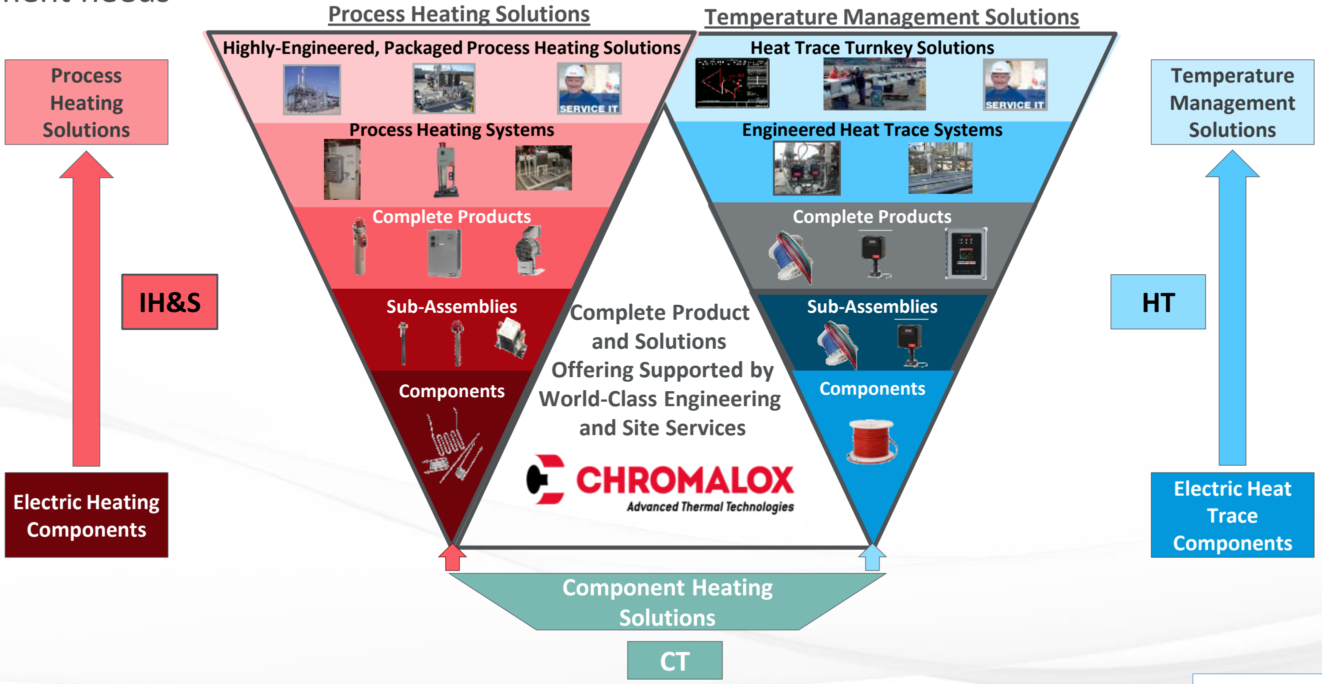
Unique position: at the intersection of Process Heating and Temperature Management

Chromalox is able to provide customers with a complete solution for process heating and temperature management needs



37% of IH&S and HT sales derived from customers buying across both segments

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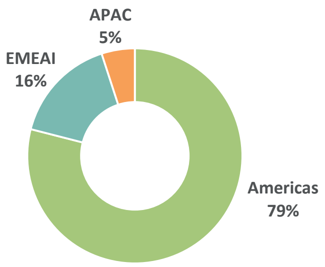
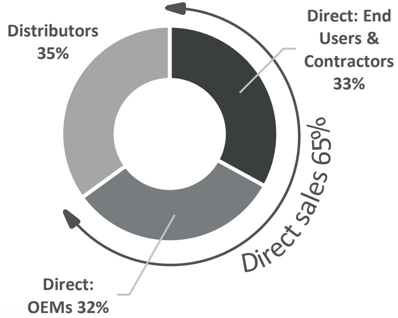
Sales spans broad range of customers and end segments

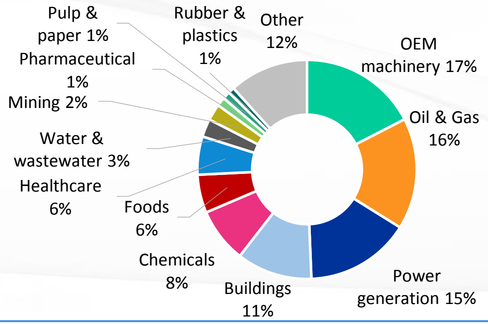
2017 Sales by Geography



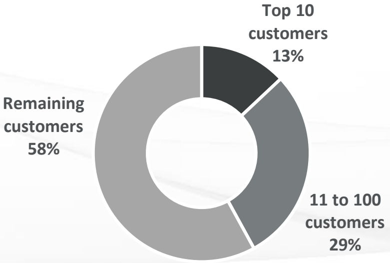
2017 Sales by Channel



2017 Sales by End Segment



2017 Customer Concentration



- Opportunity to gain share in EMEAI and APAC
- 33% of sales to End Users and EPC's* represents project work
- Top 10 customers represent 13% of sales
- Largest end segment represents 17% of sales
- Large installed base of products is a source for recurring sales
  - 67% of 2017 sales to OEMs and distributors are recurring in nature

* Engineering, Procurement and Construction

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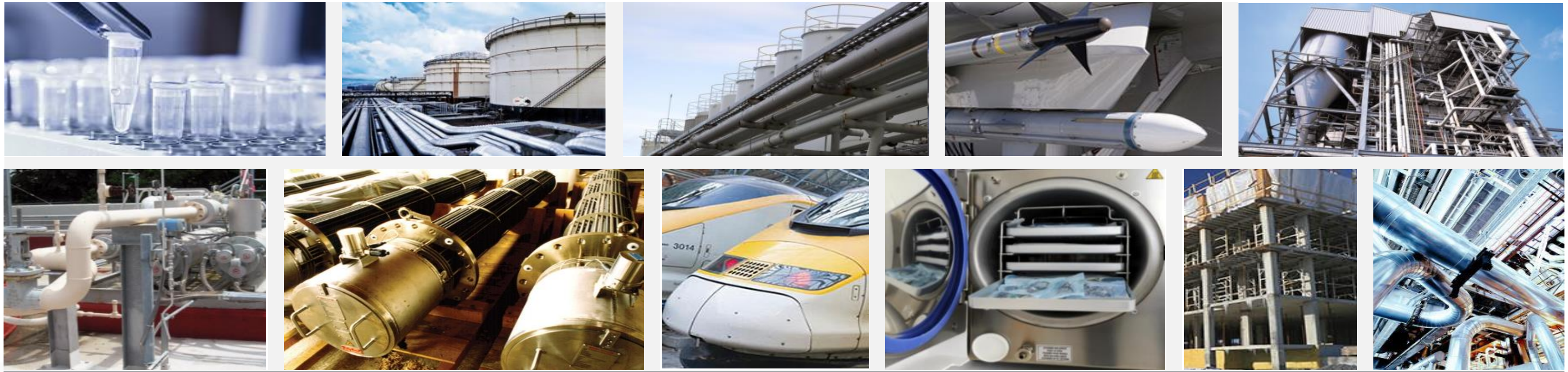

Section 2

Footprint

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Spirax-Sarco Engineering plc
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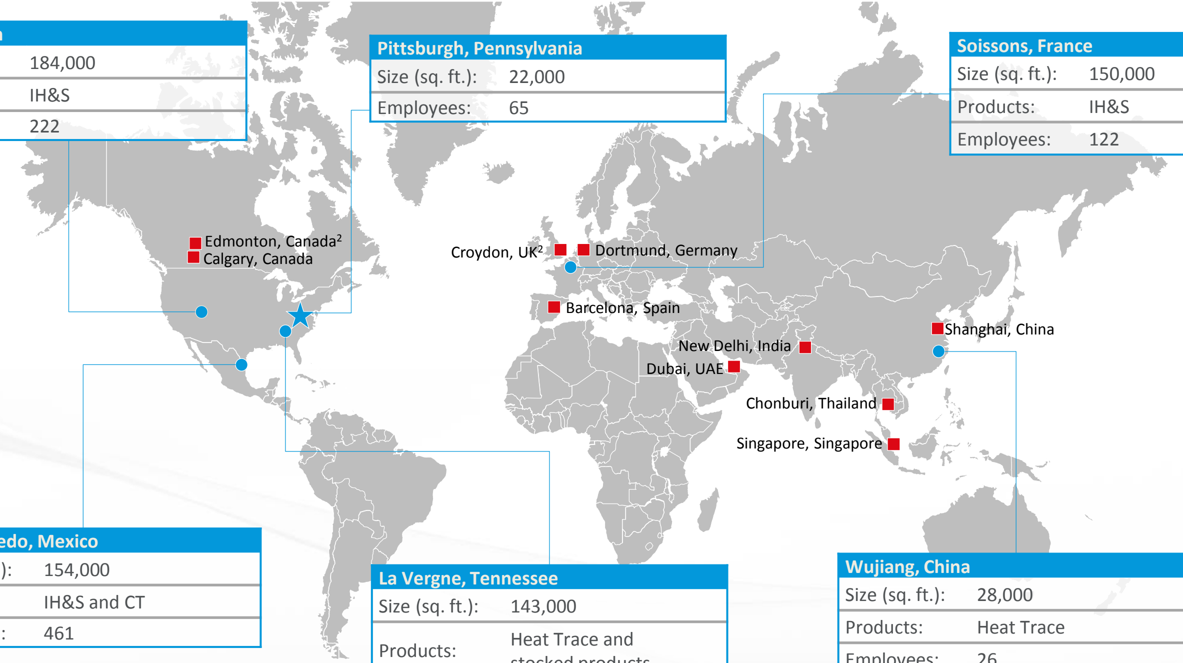
Strategic global footprint

Operations supported by talented manufacturing/process engineers, Black/Green belts and Lean Tool Experts



Ogden, Utah	
Size (sq. ft.):	184,000
Products:	IH&S
Employees:	222

Pittsburgh, Pennsylvania	
Size (sq. ft.):	22,000
Employees:	65

Soissons, France	
Size (sq. ft.):	150,000
Products:	IH&S
Employees:	122

Nuevo Laredo, Mexico	
Size (sq. ft.):	154,000
Products:	IH&S and CT
Employees:	461

La Vergne, Tennessee	
Size (sq. ft.):	143,000
Products:	Heat Trace and stocked products
Employees:	96

Wujiang, China	
Size (sq. ft.):	28,000
Products:	Heat Trace
Employees:	26

- Manufacturing & Distribution Facility
- World Headquarters
- Direct Sales Offices[1]

1 Represents sales office location where Chromalox owns or leases an office.

2 Includes warehouse space for stocked products.

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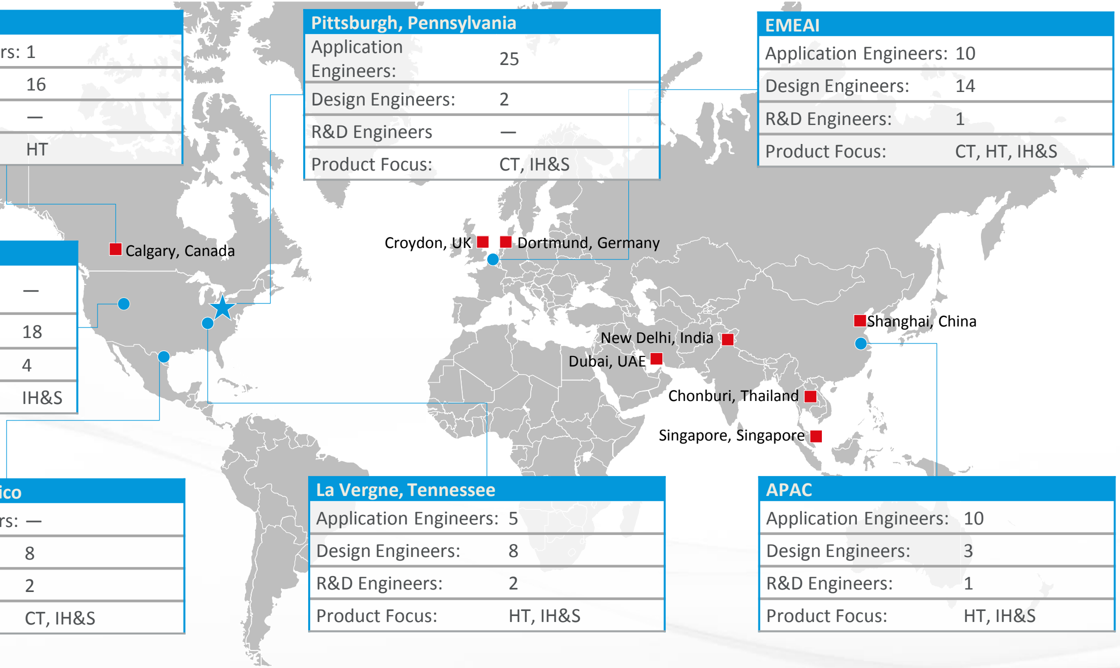
Strategic global footprint

Industry leading engineering capabilities with 130 engineers globally*



Calgary, Canada	
Application Engineers:	1
Design Engineers:	16
R&D Engineers:	—
Product Focus:	HT

Pittsburgh, Pennsylvania	
Application Engineers:	25
Design Engineers:	2
R&D Engineers	—
Product Focus:	CT, IH&S

EMEAI	
Application Engineers:	10
Design Engineers:	14
R&D Engineers:	1
Product Focus:	CT, HT, IH&S

Ogden, Utah	
Application Engineers:	—
Design Engineers:	18
R&D Engineers:	4
Product Focus:	IH&S

Nuevo Laredo, Mexico	
Application Engineers:	—
Design Engineers:	8
R&D Engineers:	2
Product Focus:	CT, IH&S

La Vergne, Tennessee	
Application Engineers:	5
Design Engineers:	8
R&D Engineers:	2
Product Focus:	HT, IH&S

APAC	
Application Engineers:	10
Design Engineers:	3
R&D Engineers:	1
Product Focus:	HT, IH&S

- **Application Engineer:** Develops thermal solutions for customer inquiries, estimates costs and develops quotations
- **Design Engineer:** Completes detail engineering, design, BOM and routing for production; may perform NPD and value engineering
- **R&D Engineer:** Researches new technologies and materials, develops new products, product testing and 3rd party approval support

* Excludes customer facing sales & service engineers

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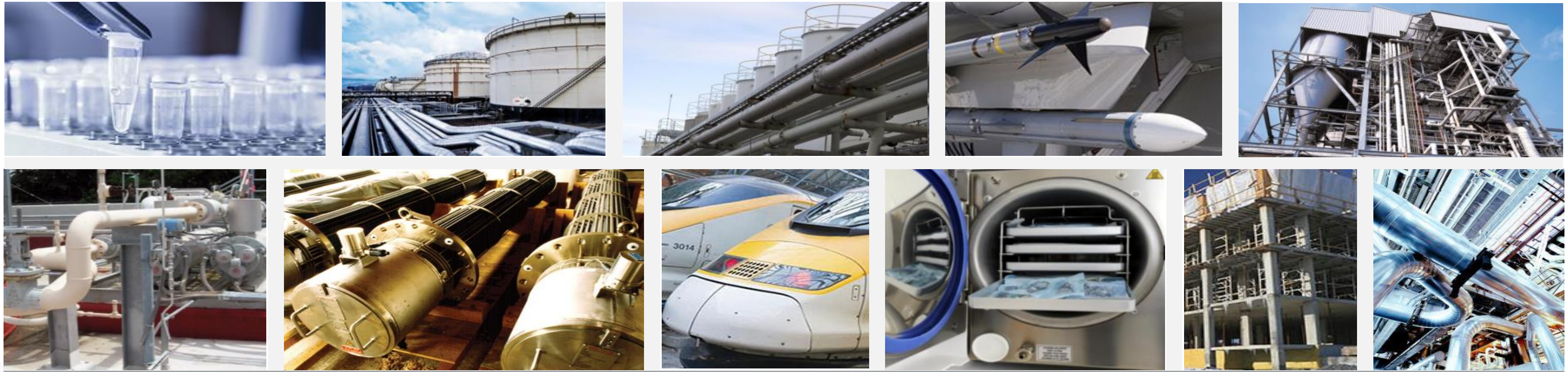

Section 3

Commercial Strategy

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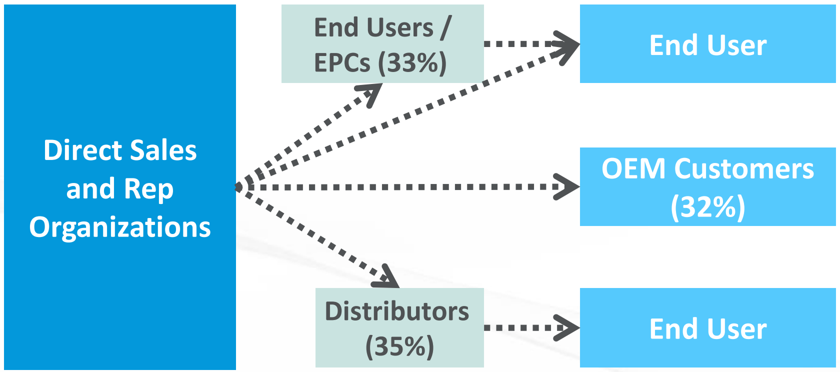
Go-to-market strategy & global sales organization

Chromalox goes to market through direct sales personnel and rep organizations that sell to Distributors, OEMs and End Users / EPCs

Chromalox Sales Channel Summary

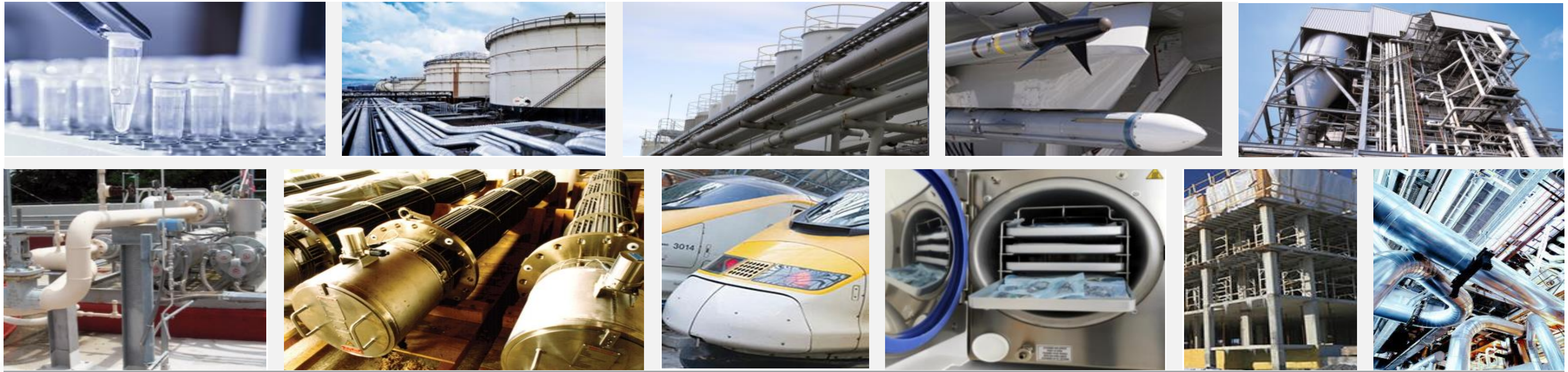


Chromalox Sales Footprint

	Direct Sales People	Rep Orgs. and Agents[1]	Distributors
Americas	57	10	233
EMEAI	25	20	192
APAC	16	15	25
Total	98	45	450

1 Territories, not number of people. Sales representatives are employed by contracted representative organizations.

CHROMALOX Advanced Thermal Technologies



Section 4

Technology and Innovation

Innovation and new products driving growth

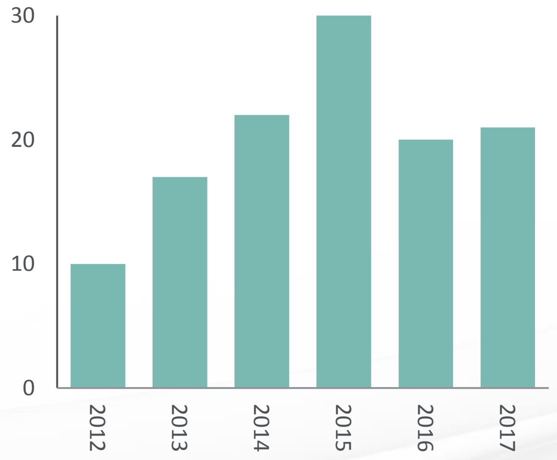
Commitment to innovation supported by ~5% of sales invested in R&D and engineering annually

- Focused on building extendable product platforms in areas of core competencies
- Several disruptive technologies and new products recently introduced; additional technologies and products under development

Technology Platforms	Products
DirectConnect™	Medium voltage heating systems and controls
XtremeDuty™	High temperature heat trace
C2i™	Wireless, **IntelliTrace™**
Power$^{V}_{TM}$	Medium voltage elements
DriMeg™	Patented dry out control systems

- 100+ new products introduced in last 5 years; robust pipeline of 30+ products under development; maintain a thorough stage gate process for new product vetting
- Portfolio of 21 active patents and an additional 4 pending
- 130 engineers use and continuously improve on 100 years of Intellectual Property

New Products Launched



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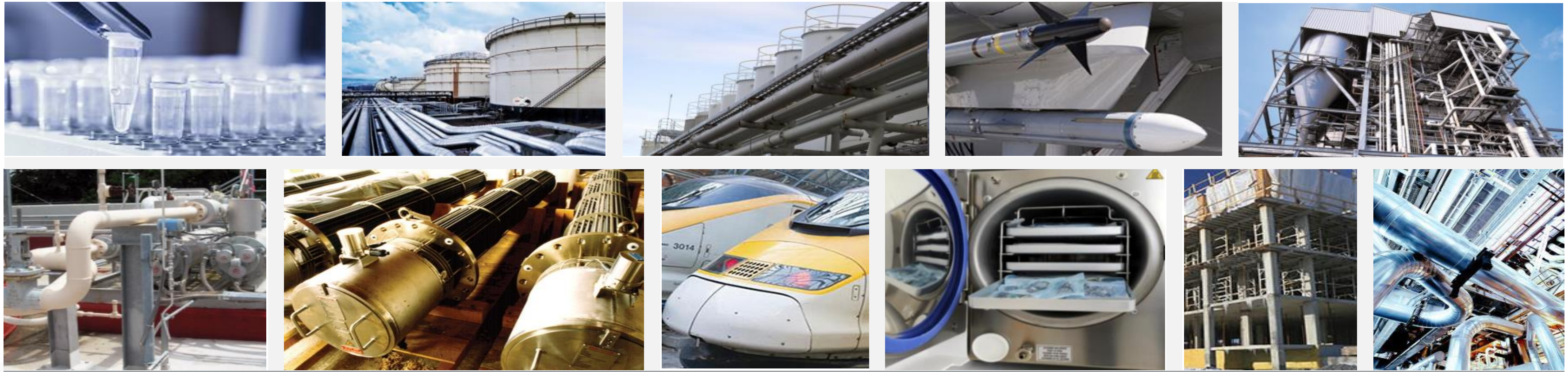


Section 5

Product segments

Component Technologies

Spirax-Sarco Engineering plc
www.spiraxsarcoengineering.com

Component Technologies overview

- Mission critical components specified into product designs, ordered by customers on recurring basis, replaced regularly by end users
- Foundation for more complex industrial heaters and systems
- Industry’s broadest line of heating elements, temperature sensors and controls for OEM applications
- Top 10 customers = 34% of segment sales
- Largest customer = 10% of segment sales

Products

Tubular Heaters | Strip and Ring Heaters | Cartridge Heaters | Flexible Heaters | Band and Nozzle Heaters | Temperature Controls

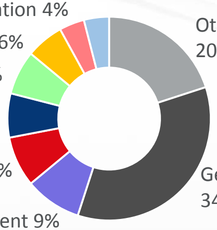
Representative Customers

SIEMENS, Agilent Technologies, CRESTCHIC, LOCKHEED MARTIN, HOTSTART, MILACRON, Manitowoc Foodservice

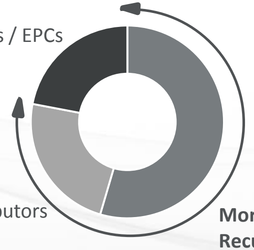
Select Competitors

DUREX INDUSTRIES, INDEECO, MINCO, TEMPCO, Vulcanic, NIBE, OMRON, Zoppas Industries, WATLOW

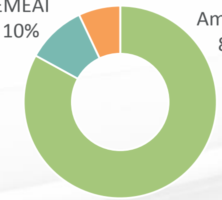
FY17 Sales by End Segment



FY17 Sales by Channel



FY17 Sales by Geography



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Selected new product innovation: XtremeDuty™

XtremeDuty™ products engineered to withstand harsh use and perform in most difficult locations

- Engineered thermal solutions; proprietary technologies designed for extreme environmental and process conditions
- Vertically integrated manufacturing for customized solutions to meet requirements of any climate or process
- Key advantages:
  - Lower maintenance
  - Superior performance
  - Safer operation (no open flame)
  - Corrosion resistance
  - Faster start-up
  - Moisture resistance
  - Hazardous area approved

XtremeDuty™ Application Environments

Processes

- Extreme temperature applications from -225°C to 1,100°C
- Extreme pressure applications from full vacuum to 7,500psig / 517 barg
- Corrosive heating such as with hydrochloric acid
- Temperature sensitive fluids, e.g., sulfur processing where +/-15°C is critical
- Hazardous applications, e.g. fuel gas superheating or hydrocarbon vaporization

Environmental

- High / low temperatures: -60°C (arctic) to 55°C (desert)
- Corrosive areas, e.g. salt air, wind and rain
- Hazardous locations: refineries, chemical storage, gas turbine enclosures and drilling platforms

CHROMALOX
Advanced Thermal Technologies

Selected new product innovation: XtremeDuty™

XtremeDuty™ products engineered to withstand harsh use and perform in most difficult locations

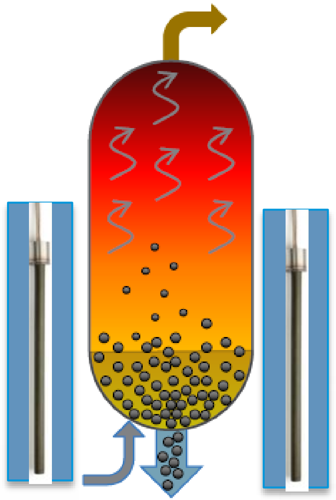
XtremeDuty™ Alternative Energy Application

Technology

XtremeDuty™ MaxiZone Heaters surrounding fluidized bed reactor delivering high efficiency heat transfer at 980°C for polysilicon production

Advantage

Only Chromalox MaxiZone heating technology can deliver the temperature and precision to manufacture semiconductor grade polysilicon



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Industrial Heaters and Systems

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Spirax-Sarco Engineering plc
www.spiraxsarcoengineering.com

Industrial Heaters & Systems overview

- Industry's most complete offering of process heating solutions; a broad range of industrial heaters, engineered systems and related services
- Chromalox widely recognized as thought leader within industrial process heating
- Top 10 customers = 22% of segment sales
- Largest customer = 3% of segment sales

Products

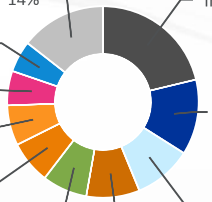
Representative Customers

Bechtel, Chemours, GE, Steris, REC Silicon, Siemens, Tecnicas Reunidas

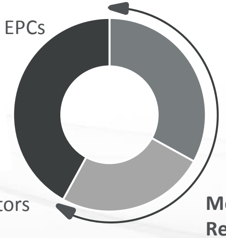
Select Competitors

Ex Heat, Gaumer Process, Thermon, Cetal, Klöpper Therm, Vulcanic, Watlow, Indeeco

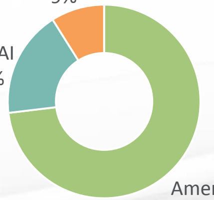
2017 Sales by End Segment



2017 Sales by Channel



2017 Sales by Geography



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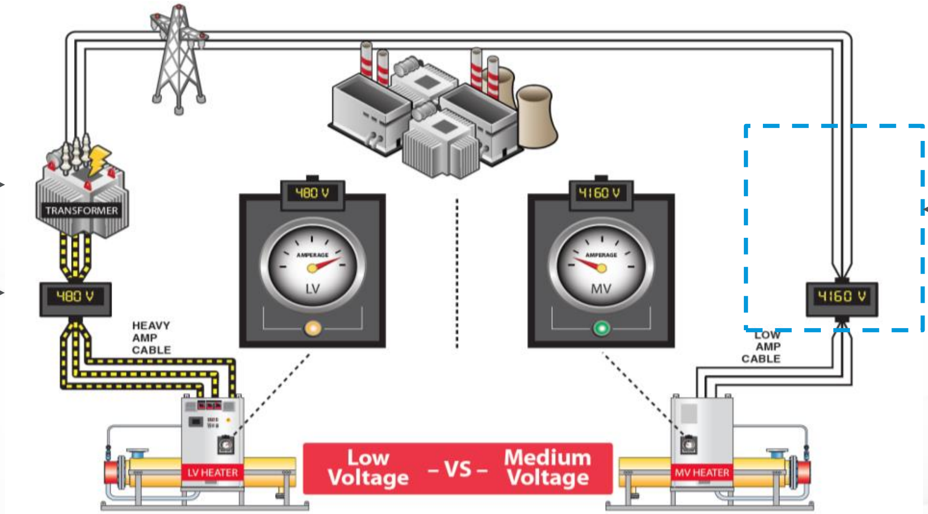
Selected new product innovation: DirectConnect™

*Chromalox **DirectConnect™** medium voltage electric heating systems are a new, disruptive technology that reduces installation and life-cycle costs while providing pollution-free operation for process heating*

Standard Low Voltage electric heating systems require step-down in voltage



Chromalox **DirectConnect™** eliminates need to step-down voltage

CHROMALOX Advanced Thermal Technologies

Selected new product innovation: DirectConnect™

- Key advantages:
  - Eliminates need for medium- to low-voltage conversion (directly connects to medium voltage source)
  - Reduces installation labour costs up to 90%
  - Reduces installation time up to 80%
  - Increases efficiency of power distribution and consumption (~ 99% efficiency)
  - Reduces cabling required
  - Reduces yearly maintenance from days to hours
  - Safer operation (no open flame)
  - Pollution free
- Opens new end segments and applications for electric heating solutions
- New product category; no competitor has comparable industry certification
- Tested and approved by 3rd party laboratories

DirectConnect™ Savings vs. Traditional Low Voltage Solutions

Cost of Ownership	Traditional 480 V	Direct Connect™ 4160 V	Savings ($)	Savings (%)
Capital and Installation	$753.6K	$528.7K	$225.0K	*30%*
Operating	$873.9K	$240.8K	$633.1K	*72%*
Maintenance	$61.2K	$10.2K	$51.0K	*83%*
Life Cycle Replacements	$163.7K	$69.5K	$94.2K	*58%*
Total Life Cycle Costs	$1,852.4K	$849.2K	**$1,003.3K**	***54%***

Customers save more than $1 million utilizing the DirectConnect™ electric heating system

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Heat Trace

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Spirax-Sarco Engineering plc
www.spiraxsarcoengineering.com

Heat Trace overview

- Temperature management solutions for piping systems, valves and tanks; full suite of flexible cable and associated control products
- Established position within small and medium scale applications of heat trace; enhanced capabilities to provide turnkey solutions supported by engineering and site services
- Industry-leading technology and integrated product suite
- Top 10 customers = 23% segment sales
- Largest customer = 4% of segment sales

Products


Self-Regulating Heat Trace


Jacketed Heat Trace for Hazardous Areas


Controls and Accessories


Heat Trace Digital Thermostat


Mineral Insulated Heat Trace


Mineral Insulated Heat Trace Termination


Control Panel


Supervisory Software

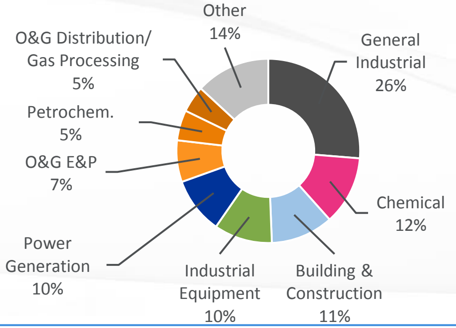
Representative Customers

ExxonMobil, GraybaR, Petrofac, Southern Company, Solvay, Wesco

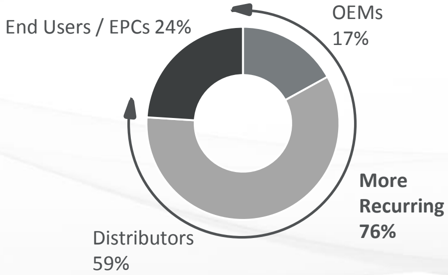
Select Competitors

Pentair, Bartec, CSI, Nextron, Thermon, Nelson, O'Brien, Heat Trace

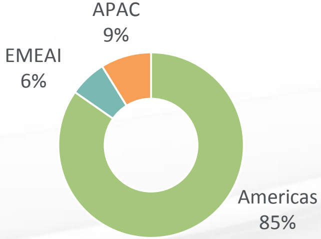
2017 Sales by End Segment



2017 Sales by Channel



2017 Sales by Geography



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Selected new product innovation:

High Temp Self-Regulating Heat Trace

- New high temperature self-regulating polymer
  - Proprietary extrusion process enables higher temperature materials
  - Max. continuous exposure temps up to 285°C
  - 480V self-regulating cable; up to 35W/ft
- Patented thermal box designs and connection accessories
- Key advantages:
  - Cables cut to length in field for easier, lower-cost installation
  - Saves energy by reducing heat output when not needed
  - Lower installed costs, reduced maintenance expense and downtime
  - Greater flexibility than MI and Constant Wattage cables; easier installation
- End segment applications: Power Generation, Chemical and Oil & Gas

Chromalox's break-through technology for High Temp Self-Regulating Heat Trace has an opportunity to displace competing technologies, such as MI cable, in the marketplace

CHROMALOX
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Selected new product innovation:

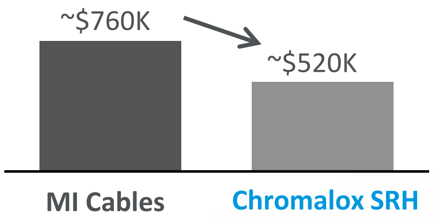
High Temp Self-Regulating Heat Trace

Chromalox SRH Advantages Over Competing Technologies

	Chromalox SRH	Mineral Insulated Cables ("MI")	Power Limiting Constant Wattage	Traditional Self-Regulating
Address >260°C	• Yes	• Yes	• No	• No
Purchase Availability	• Stock	• Made-to-order • (4-6 week delivery)	• Stock	• Stock
Operating Metrics	• 480V • 35W/ft	• 600V • 50W/ft	• 480V • 20W/ft	• 277V • 20W/ft
Installation	• Flexible • Cut to length from spool	• Very stiff, heavy • Hard to install • Custom ordered	• Stiff • Electrical node • Hard to install	• Very flexible • Cut to length from spool
Efficiency	• Efficient	• Less efficient	• Somewhat efficient	• Efficient

Illustrative Cost Comparison

~30% Cost Reduction using Chromalox SRH



- Typical high temperature application, Chromalox SRH can reduce costs by ~30%
  - No cold leads like MI Cables
  - Ease of installation
  - Reduced labor man-hours

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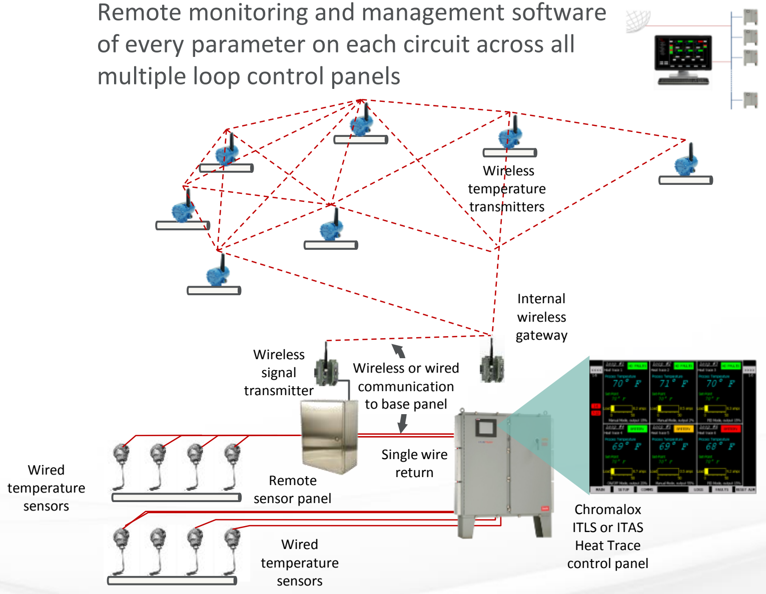
Selected new product innovation: C2i™

Proprietary control platform and software with intuitive Human Machine Interfaces ("HMI") simplify heat trace system installation and operation and provide end-to-end capabilities

- Full suite of proprietary integrated software and hardware products
- Automation platform with remote monitoring and Internet of Things capabilities
- Sensor and output mapping methodology reduces heat trace & control installation manpower and provides greater system flexibility
- Patented seamless wireless temperature transmitter integration
- Scalable supervisory control platform and software

Central Control Capability

Remote monitoring and management software of every parameter on each circuit across all multiple loop control panels



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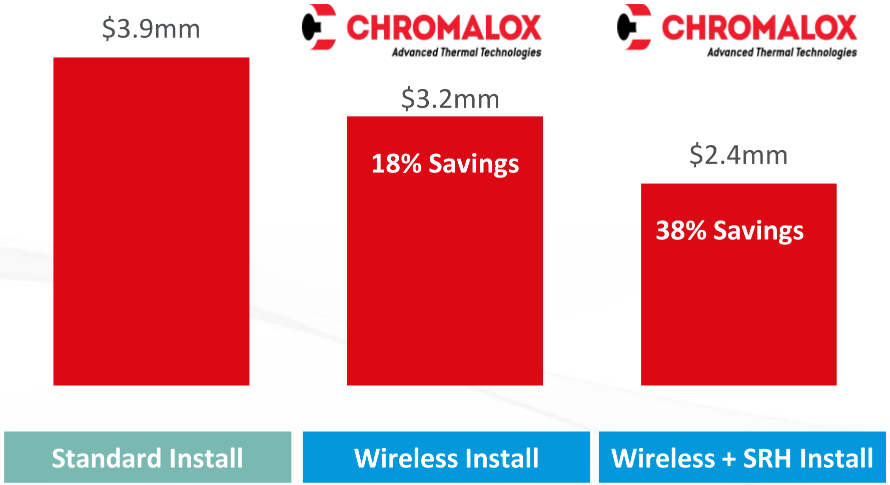
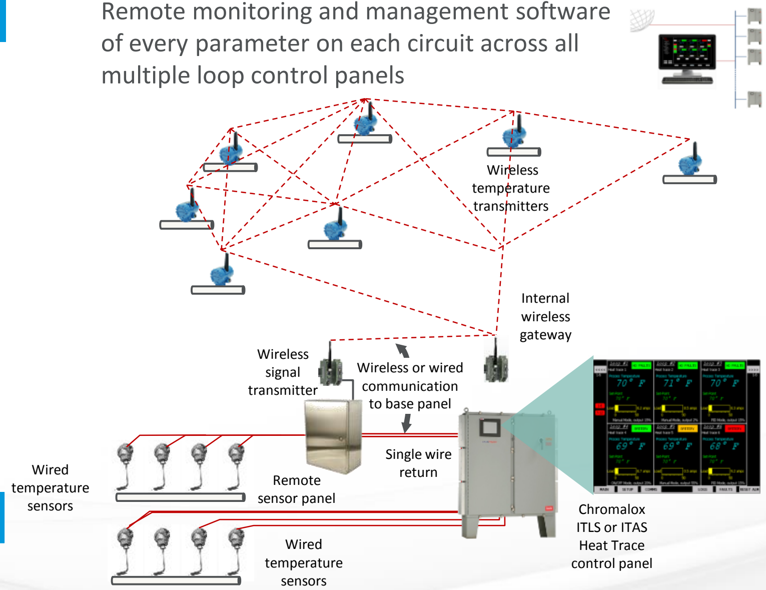
Selected new product innovation: C2i™

Typical 500 Circuit Project Cost Comparison



Central Control Capability

Remote monitoring and management software of every parameter on each circuit across all multiple loop control panels



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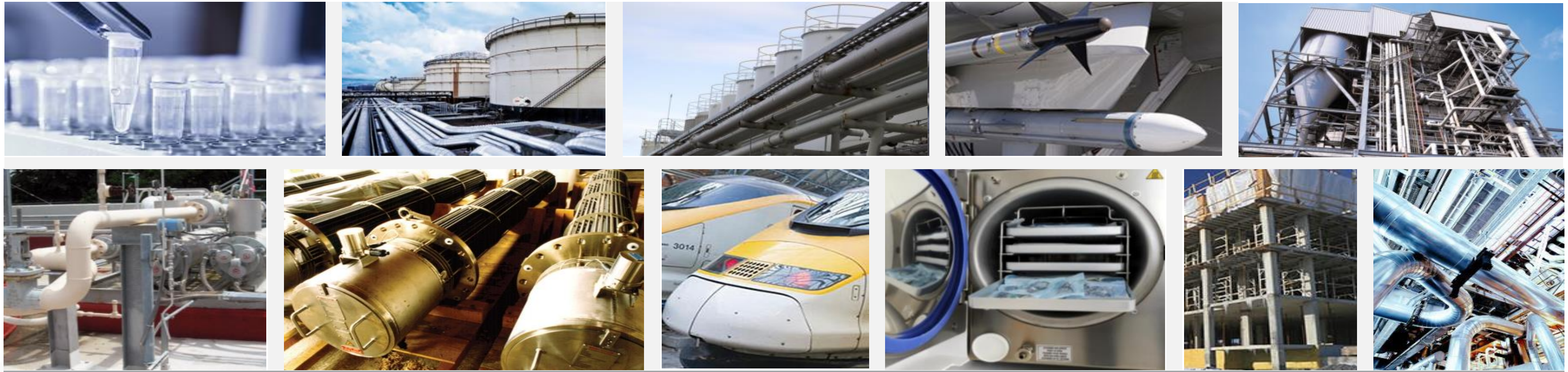

Section 6

Conclusion and transition to product demonstrations

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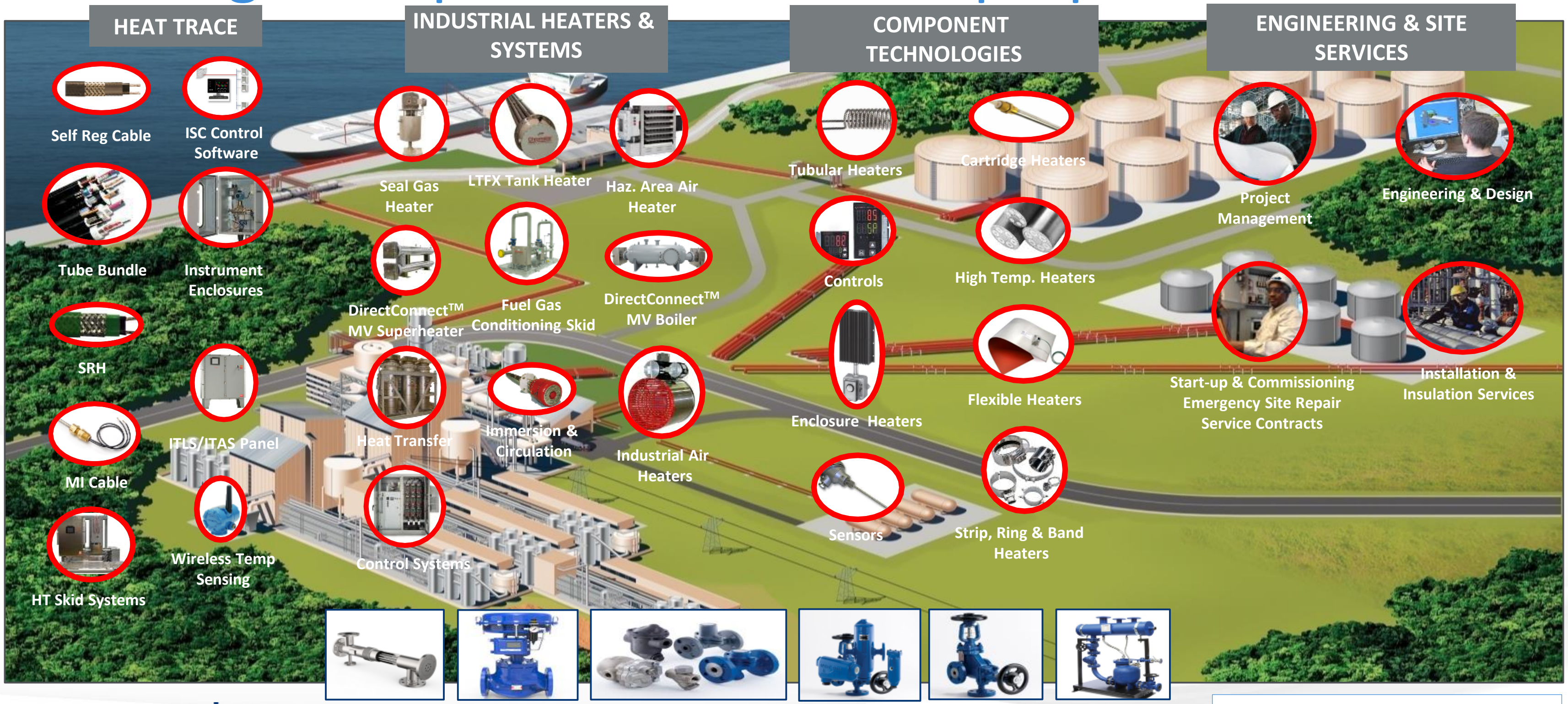
Providing a unique customer value proposition



spirax sarco

Heat Exchangers | Control Valves | Steam Traps | Steam Ancillaries | Isolation Valves | Condensate Pumps

CHROMALOX
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Unique thermal technologies platform

CHROMALOX
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- Leading technology and innovation platform with comprehensive product and service offering
- Only company that can deliver both electrical process heating and temperature management solutions
- Highly diversified across end segments, geographies and customers
- Broad product applications for mission critical industrial processes
- Well-positioned to capitalize on near- and long-term industry growth trends
- Strong global brand awareness across all product segments
- Unique platform for both organic and in-organic growth

Customer first

...a strategy for growth

Steam Specialties

Organic Growth Strategy Update

Neil Daws

Executive Director, EMEA, Spirax Sarco

spirax sarco

First for Steam Solutions

Three steps to build a new strategy

Built by a team of experienced managers, with significant involvement by the executive team and...

1 Strategy
Formulate Strategy

2 Design
Design the high-level operating model

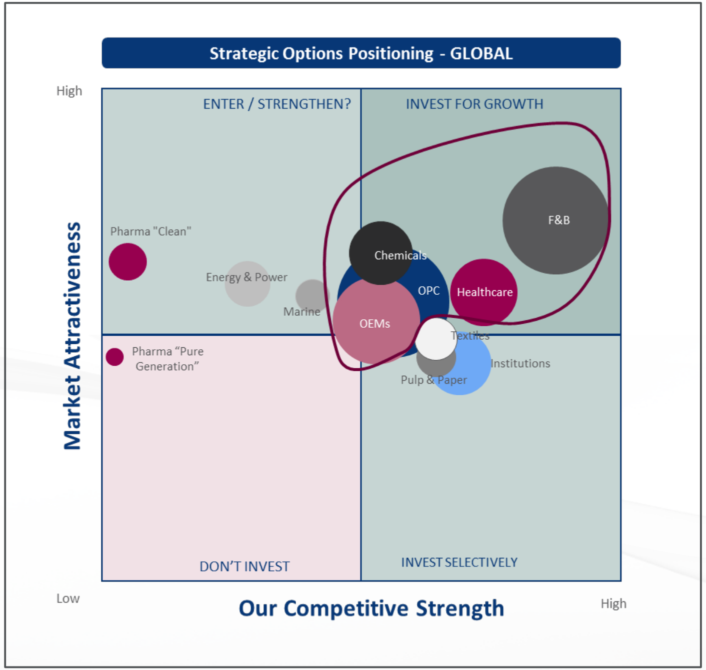
3+ Implementation
Detailed design, planning and delivery of changes

...+300 contributors from across the business
...including +170 customer interviews in 19 countries covering key industries

Very inclusive - both externally, customers & internally, employees

Fresh insights – about industries and customers

Industry insights



Customer insights

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First for Steam Solutions

Our vision describes the aspiration of the steam business

We will be…

Recognised by customers as the world leader in Steam *and* Thermal Energy Solutions

Expands our addressable market

Eight strategic thrusts to drive growth and performance

Strategic thrusts are the 'vital few' initiatives we must deliver to succeed

- Sales growth in priority segments

1. Grow end user sales in Food & Beverage and Healthcare	2. Grow sales in OPC and Chemicals	3. Grow sales in OEMs	4. Early entry to attractive geographic markets

- Products with greatest opportunities

5. Grow sales of Thermal Energy Management and Controls products

- Stronger internal processes

6. Global excellence in supply chain

7. Launch the right products to market faster

8. Develop knowledge and skills

Five ‘where to play’ industries

Providing the best return on our investments

Focusing on the most attractive industries and where we are strongest


Food & Beverage


Healthcare


OPC


Chemicals


OEM

- Focus industries will direct Group investments and be the main priority for operating companies

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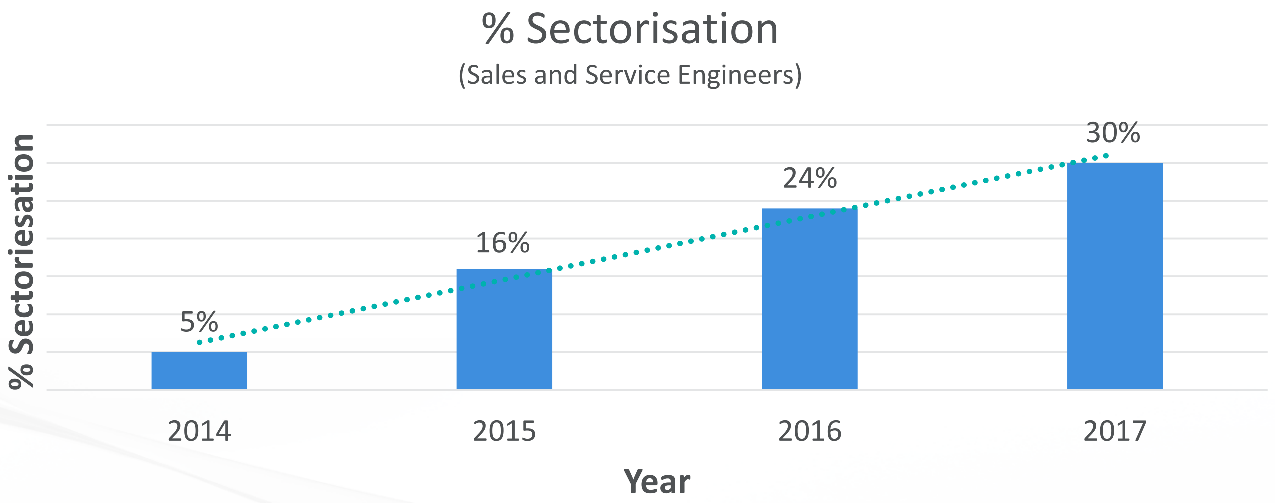
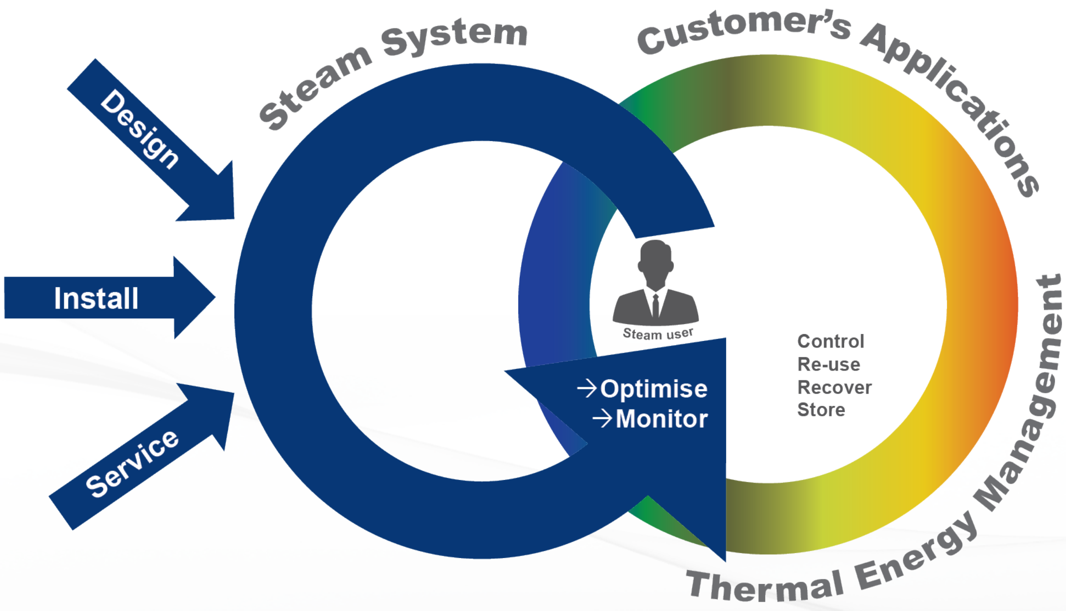
A stronger customer focus in our organisation



Sectorisation is the process of aligning an organisation to priority industries. For sales this means swapping 'territory efficiency' for 'sales effectiveness'. The graph shows the progress made in sectorising sales and service people. Only those who spend >50% of their time are included in the calculation.

'Customer first' is making us more expert in customer needs

Our vision states an expansion of our business scope to cover wider thermal energy management



Steam customer improvements in the control, re-use, recovery and storage of thermal energy in steam, utilities and related process waste streams.

Expands our addressable market

Vision Recognised by customers as the world leader in Steam *and* Thermal Energy Solutions

We will adopt a Total Customer Solution position

Customer Needs

Fulfilling customer needs through focussed offers of products and services:

CUSTOMER VALUE PROPOSITIONS

Customer Economics

Competing on customer benefits, <u>not</u> on product economics and features

Customer Bonding

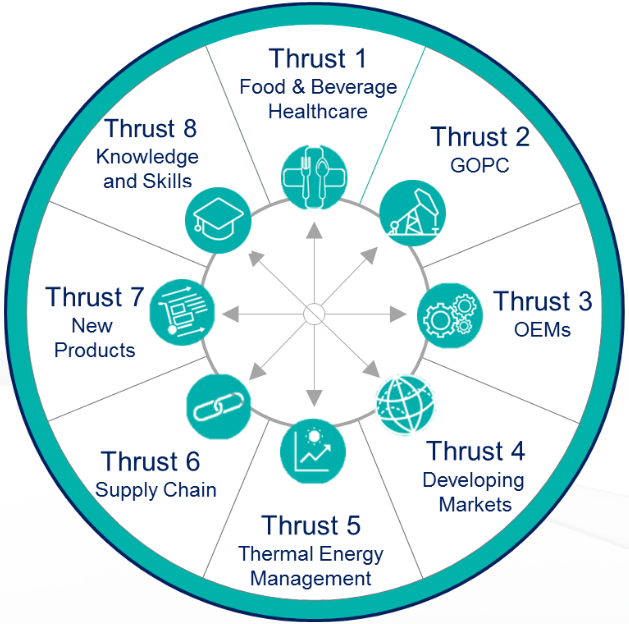
Strengthening our bond with customers by reducing their costs or increasing their productivity and profits

Excellent products remain central to our business success

Gestra strategic fit

- Gestra acquisition assessed for 'fit'
- Very complementary to 'Customer first' strategy
- World class boiler controls strengthens OEM business
- High pressure products expands offer into Oil, Gas & Chemicals
- Opens up the Power Markets expanding steam addressable market
- Can benefit from more rapid geographic expansion
- Will benefit from Group Supply Chain strategy through access to proven global suppliers

Customer first implementation results



- Priority sectors (**Thrusts 1, 2 & 3**) growing at a faster rate; 50% of turnover in 2017, up from 40% in 2014.
- Eight fully operational OpCos established in new markets in last 3 years and five new sales offices opened (**Thrust 4**).
- Thermal Energy Management and Controls products (**Thrust 5**) growing at a faster pace than traditional condensate products. Thrust 5 product lines now used in 40% of sales.
- Good improvement in service levels: on time delivery improved 1,440 bps, a 22% improvement; stock weeks reduced 5% (**Thrust 6**).
- 29 new products launched since 2015 (**Thrust 7**).
- 1,150 of Sales & Service Engineers enrolled and participating in Spirax Sarco Academy; 16 different languages (**Thrust 8**).

Our strategic objectives describe the high level goals

- Self-generated growth with no dilution of trading margin
- An aligned organisation retaining entrepreneurial spirit
- Using consistent frameworks and methodologies

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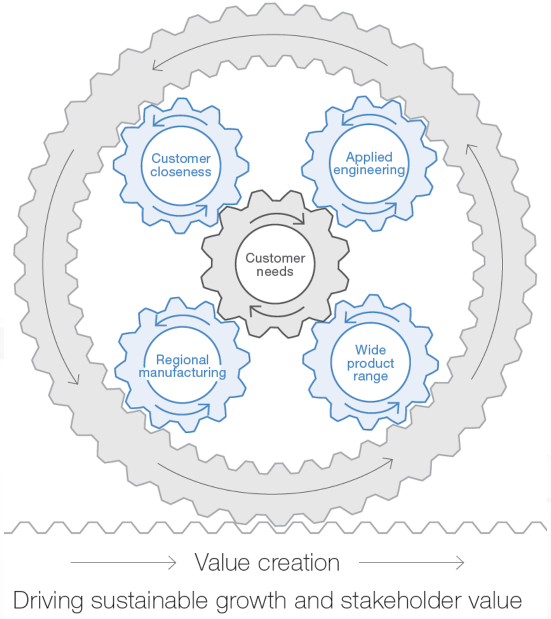
Closing remarks

Nicholas Anderson

Group Chief Executive

Our direct sales business model

Positioning us well to create value



Customer needs: We help our customers to solve their difficult productivity and process challenges, improve their operational sustainability and comply with increasingly stringent health, safety and environmental requirements.

Customer closeness: Our direct sales business model creates a unique understanding of our customers' needs and enables us to build deep, long-term relationships as we help our customers solve their difficult productivity, control and energy efficiency problems, and improve their operational performance and sustainability.

Applied engineering: It is not our products alone that provide value to our customers - it is the application of our extensive knowledge of systems design, operations and maintenance.

Wide product range: The breadth of our product offering is unmatched by our competitors and our one-stop shop approach simplifies the procurement process for our customers who are increasingly seeking partnerships with competent full-service suppliers.

Regional manufacturing: Local availability of a wide range of products is critical to our business model and enhances top line revenue growth. We have strategically located our manufacturing plants across the world, in Europe, North America, Latin America and Asia.

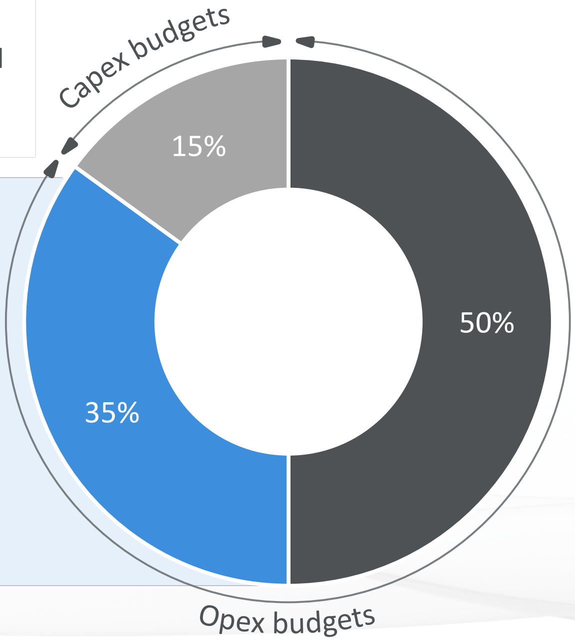
Customer capex vs opex spend

Sales by value driver*

85%
of Group revenue is generated from annual maintenance and operational budgets

Self-generated sales

Our sales and service engineers are highly skilled in both product applications and systems understanding. We self-generate sales as we identify our customers' unrecognised needs and solve their difficult process challenges.



- **Maintenance and repair sales** that *maintain existing systems*, supported by the end users' opex budgets, with a typical invoice value of around £1k
- **Small project sales** that *improve existing systems*, supported by the end users' opex budgets, with a typical invoice value of £10k-£50k
- **Large project sales** that *build new systems*, supported by the end users' capex budgets, with a typical invoice value of over £100k

* Based on Spirax Sarco internal estimates

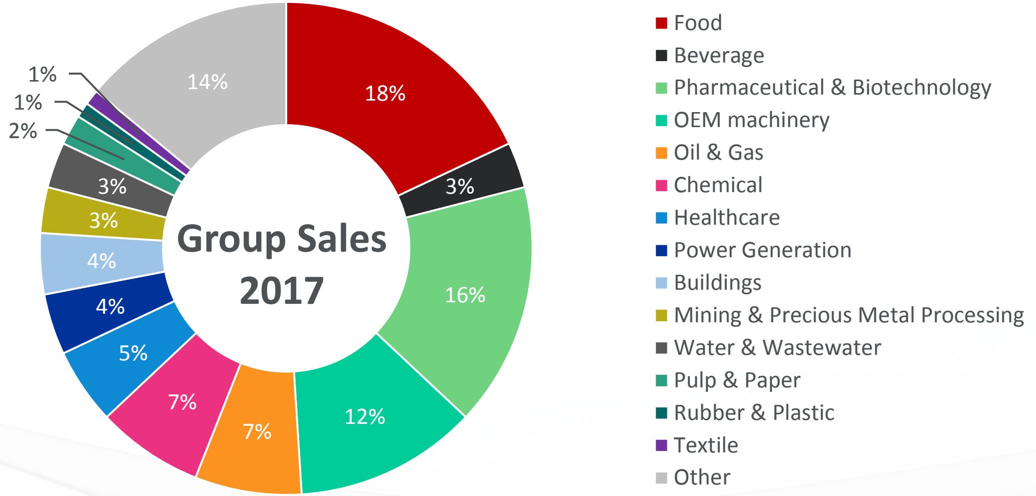
Diverse markets and broad customer base

A source of resilience

c.**50%** of Group revenue derived from defensive, less cyclical, end markets

85% of Group revenue derived from annual maintenance and operating budgets, rather than large projects from capex budgets

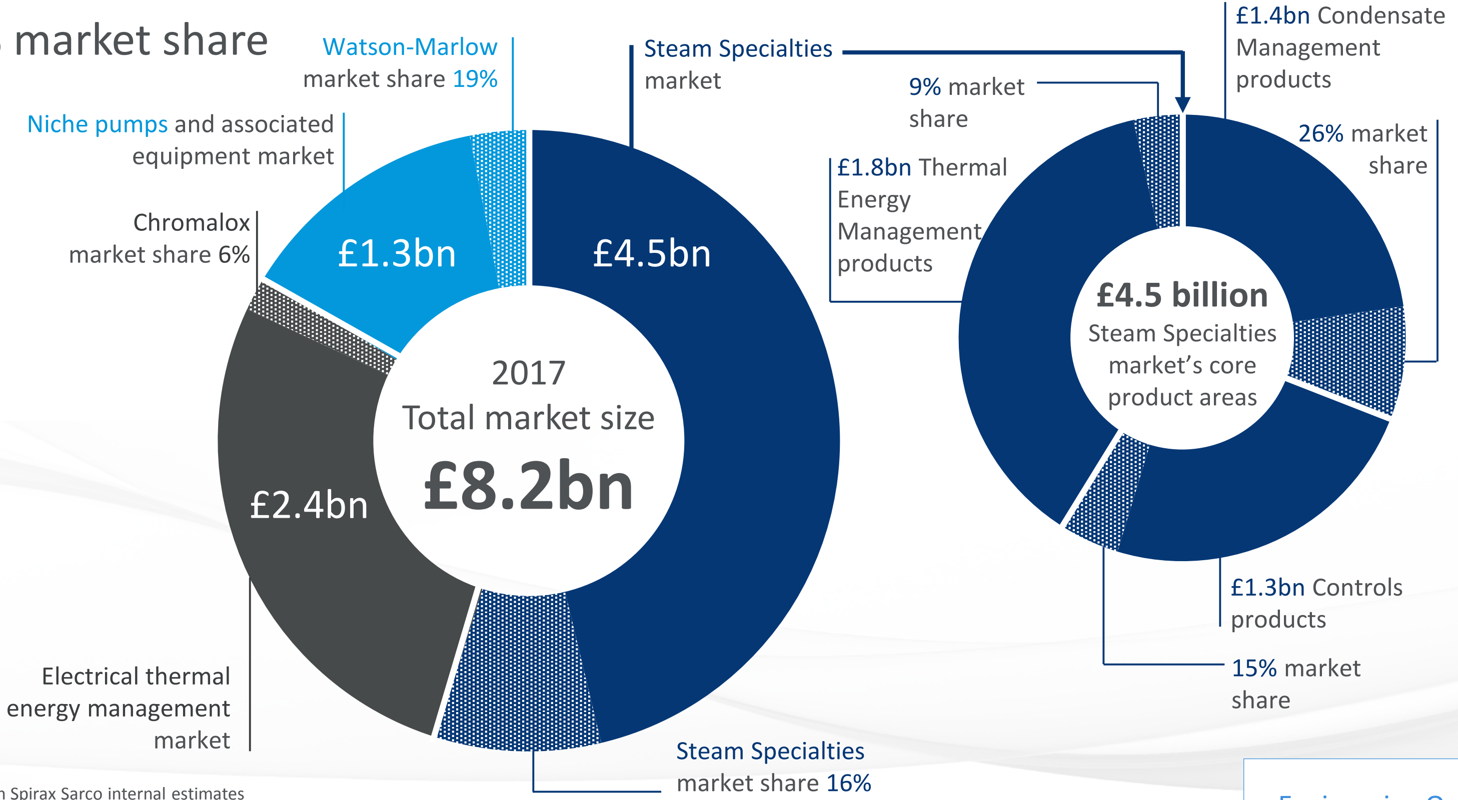
* Based on Spirax Sarco internal estimates



Where there is little visibility of end user industry sector (primarily in sales via distributors), sales have been allocated across industries on a pro-rata basis. In 2017 these "unknown" sales accounted for 24% of total revenue. OEM sales to identifiable end industries have been allocated to those industries. Sales to OEM customers accounted for 20% of Group revenue in 2017. Revenue by industry sector includes full year revenue from acquisitions made in 2017.

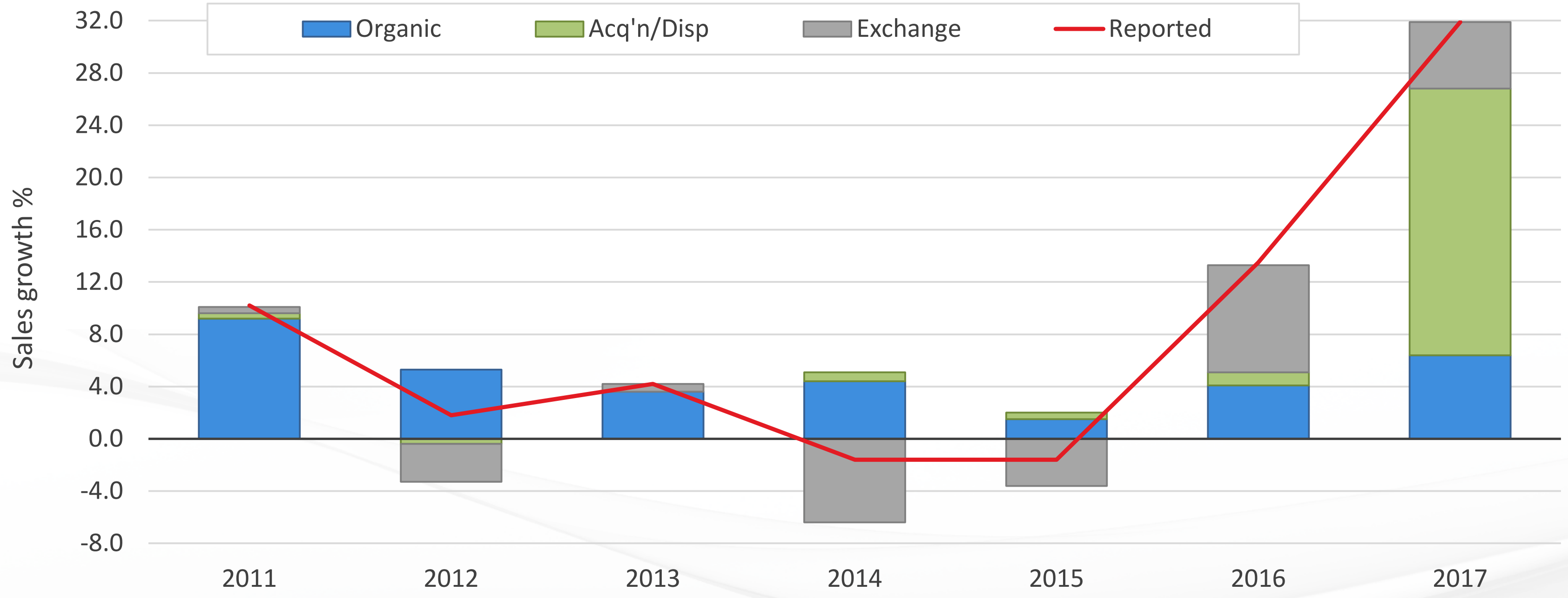
£8.2 billion market size

13% market share



Source: based on Spirax Sarco internal estimates

Sales growth 2011-2017



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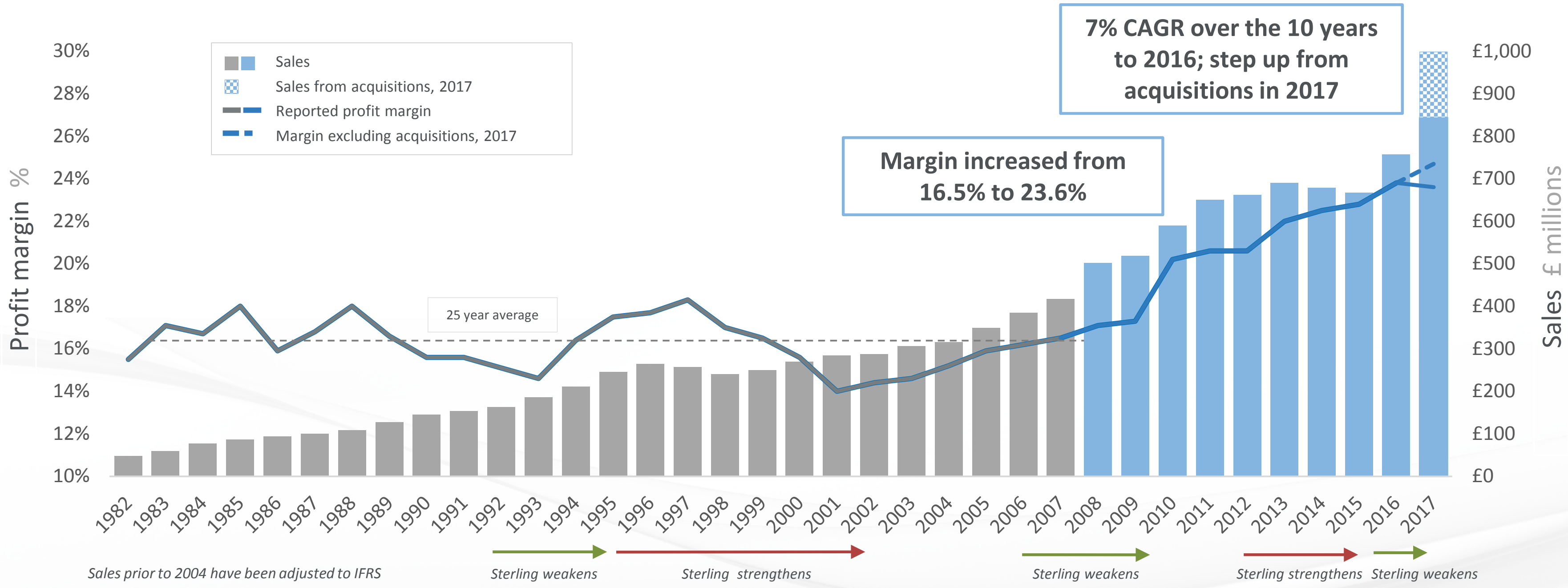
Broadening the platform for future organic growth



Engineering Opportunities

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Questions

Engineering Opportunities