Spirax-Sarco Engineering plc

www.spiraxsarcoengineering.com

News Release

Wednesday 11th March 2020

Strong organic growth despite weak industrial production growth

HIGHLIGHTS

Adjusted*	**2019**	**2018**	**Reported**	**Organic⁺**
Revenue	£1,242.4m	£1,153.3m	+8%	+6%
Adjusted operating profit*	£282.7m	£264.9m	+7%	+7%
Adjusted operating profit margin*	22.8%	23.0%	-20 bps	+10 bps
Adjusted profit before taxation*	£274.5m	£254.6m	+8%	
Adjusted basic earnings per share*	265.7p	250.0p	+6%	
Cash conversion**	84%	91%		

Statutory	**2019**	**2018**	**Reported**
Revenue	£1,242.4m	£1,153.3m	+8%
Operating profit	£245.0m	£299.1m	-18%
Operating profit margin	19.7%	25.9%	-620 bps
Profit before taxation	£236.8m	£288.8m	-18%
Basic earnings per share	226.2p	303.1p	-25%
Dividend per share	110.0p	100.0p	+10%

- Reported revenue growth of 8%, organic revenue growth of 6%
- Adjusted operating margin of 22.8%, up 10 bps organically*
- Strong organic sales growth in Steam Specialties and Watson-Marlow
- Chromalox operating margin increased to 15.1% in H2
- Net debt^ of £295.2 million as at 31st December 2019, 0.9x EBITDA*
- Statutory operating profit down 18% due to non-recurring gain on disposal in 2018
- Final dividend increased by 10% to 78.0p

Nicholas Anderson, Group Chief Executive, commenting on the results said:

"We are pleased to report strong organic sales growth of 6% in 2019, ahead of global industrial production growth rates, and organic adjusted operating profit growth of 7%. Both the Steam Specialties and Watson-Marlow businesses benefited from the successful implementation of our strategy, achieving strong organic sales and profit growth, while margins in Chromalox increased in the second half as operational efficiency initiatives began to deliver results.

Political and economic uncertainty, as well as COVID-19, continue to dampen global industrial production growth forecasts, although we currently assume that conditions will begin to improve during the second half of the year. We remain cautious currently on the economic outlook, but confident in our ability to self-generate growth through the implementation of our strategy and to outperform our markets."

**All profit measures exclude certain items, which totalled a charge of £37.7 million (2018: credit £34.2 million), as set out in Note 2.*
***Cash conversion measures the percentage of adjusted cash from operations to adjusted operating profit, as set out in Note 2.*
⁺Organic percentage growth measures are at constant currency and exclude contributions from M&A, as set out in Note 2.
^Net debt includes total borrowings, cash at bank and bank overdrafts but excludes IFRS 16 lease liabilities, as set out in Note 8.

For further information, please contact:

Nicholas Anderson, Group Chief Executive
Kevin Boyd, Chief Financial Officer
Shaun Laubscher, Investor Relations Officer

Tel: 020 7638 9571 at Citigate Dewe Rogerson until 6.00 p.m.

Audio webcast
The meeting with analysts will be available as a live audio webcast at 9.00 a.m. on the Company's website at www.spiraxsarcoengineering.com or via the following link: https://edge.media-server.com/mmc/p/orgpdxht *and a recording will be made available on the website shortly after the meeting.*

Telephone dial-in
The meeting with analysts will also be available via a full conference call with Q&A facility, at 9.00 a.m., using the instructions provided below:

Location	***Purpose***	***Phone Type***	***Number***
United Kingdom and International	*Participant*	*Local*	*+44 (0)2071 928000*

1. *5-10 minutes prior to the call start time, call the participant dial-in number listed above.*
2. *Provide the audio operator with the Conference ID number: 8148626.*

About Spirax-Sarco Engineering plc
Spirax-Sarco Engineering plc is a thermal energy management and niche pumping specialist. It comprises three world-leading businesses: Steam Specialties, for the control and management of steam; Electric Thermal Solutions, for advanced electrical process heating and temperature management solutions; and Watson-Marlow, for peristaltic pumping and associated fluid path technologies. The Steam Specialties and Electric Thermal Solutions businesses provide a broad range of fluid control and electrical process heating products, engineered packages, site services and systems expertise for a diverse range of industrial and institutional customers. Both businesses help their end users to improve production efficiency, meet their environmental sustainability targets, improve product quality and enhance the safety of their operations. Watson-Marlow provides solutions for a wide variety of demanding fluid path applications with highly accurate, controllable and virtually maintenance free pumps and associated technologies.

The Group is headquartered in Cheltenham, UK, has strategically located manufacturing plants around the world and employs over 8,000 people, of whom over 1,600 are direct sales and service engineers. Its shares have been listed on the London Stock Exchange since 1959 (symbol: SPX) and it is a constituent of the FTSE 100 and the FTSE4Good index.

Further information can be found at www.spiraxsarcoengineering.com

RNS filter: Inside information prior to release

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Adjusted results quoted in the text below are referred to as "adjusted" (see Note 2). Organic measures, which also represent alternative performance measures, are at constant currency and exclude contributions from acquisitions and disposals.

Chair's Statement

Introduction

2019 marked the 60th anniversary of Spirax-Sarco Engineering's listing on the London Stock Exchange. Throughout this period we have consistently focused on delivering sustainable value to shareholders, while providing products and services to help engineer a more efficient, safer and sustainable world.

Against a backdrop of slowing industrial production growth rates we have had another successful year, delivering record sales and adjusted operating profit and welcoming electric thermal solutions specialist, Thermocoax, into the Group. We are therefore proposing a 10% increase in the final dividend, taking the total dividend to 110.0p, an increase of 10%, ensuring that our shareholders continue to benefit from the value we create. Throughout the year we helped our customers to manage their industrial processes and, by delivering small, bespoke engineered solutions to customers, we created value for them as we improved the efficiency, safety and sustainability of their existing systems. We estimate that energy management products sold by our Steam Specialties business in 2019 will save our customers 7.2 million tonnes of carbon emissions a year – the equivalent of the annual carbon absorption of approximately 327 million mature trees – thereby ensuring that our value creation goes beyond our customers and the financial markets to also help tackle the global challenge of climate change. [1]

Financial highlights

Sales for the year were £1,242.4 million, an organic increase of over 6%, strongly exceeding global industrial production growth of 1.0%.[2] Currency movements had no effect on sales during 2019, while acquisitions and disposals resulted in a 1% net increase. Thermocoax, which joined the Group on 13th May 2019, added £27.9 million to sales. HygroMatik was divested on 30th November 2018 and as a result made no contribution to sales in 2019. The Group's reported sales were 8% higher than 2018.

Our Steam Specialties business, comprising Spirax Sarco and Gestra, performed strongly, with sales up 6% organically and gains in all three geographical reporting segments. Our Watson-Marlow Fluid Technology business had an exceptional year, with organic sales growth of over 12%. Sales in our Electric Thermal Solutions business, comprising Chromalox and Thermocoax, were down 1% organically.

On an organic basis, Group adjusted operating profit increased by 7% to £282.7 million. The Steam Specialties business saw organic adjusted operating profit growth of 10%, while Watson-Marlow was up 11%. Chromalox saw an organic adjusted operating profit decline of 19%, following a challenging first half of the year, but recovered in the second half. Translation and transaction currency movements reduced the Group adjusted operating profit by 1%, while the net impact of the acquisition and disposal added 1%. Total adjusted operating profit was also up 7% on a reported basis. Statutory operating profit fell to £245.0 million (2018: £299.1 million) and the statutory operating profit margin fell from 25.9% to 19.7% due primarily to the non-recurring disposal in 2018.

The Group adjusted operating margin fell by 20 bps, to 22.8%, due to the disposal of the highly profitable but non-strategic HygroMatik business and a negative exchange impact. Organically, the adjusted operating margin grew by 10 bps.

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[1] CO_2 saving tree equivalent is based on the European Environment Agency's estimated figure of 22kg of carbon absorbed per mature tree each year.
[2] Source for industrial production growth figures: Oxford Economics, February 2020.

The Group adjusted pre-tax profit was £274.5 million, 8% ahead of the prior year. Adjusted basic earnings per share was 6% ahead at 265.7 pence (2018: 250.0 pence).

The pre-tax profit on a statutory basis was £236.8 million, down 18% on 2018 (£288.8 million), which benefited from non-recurring gains on disposals (£53.9 million). Further details can be found in Note 2 to the Financial Statements. Over the last two years, statutory pre-tax profit grew 23%. The statutory basic earnings per share was 226.2 pence (2018: 303.1 pence).

Cash and dividends
Cash generation was robust throughout the year, with good adjusted cash conversion of 84% (2018: 91%), reflecting the strong organic revenue growth. On 13th May 2019 we acquired Thermocoax for €156 million (£135 million) on a cash-free, debt-free basis. The acquisition was financed from existing cash and debt facilities. At 31st December 2019 we had a net debt balance of £295.2 million, a net debt to EBITDA ratio of 0.9 times, compared with net debt of £235.8 million at 31st December 2018.

The interim dividend for 2019, paid on 8th November 2019, was raised by 10% to 32.0 pence per share (2018: 29.0 pence per share). The Board is recommending an increase in the final dividend of 10% to 78.0 pence per share (2018: 71.0 pence). Subject to approval of the final dividend by shareholders at the Annual General Meeting (AGM) on 13th May 2020, the total Ordinary dividend for the year will be 110.0 pence per share, an increase of 10% over the 100.0 pence per share for the prior year.

Corporate governance
We were pleased to welcome Caroline Johnstone to the Board as an independent Non-Executive Director on 5th March 2019. Caroline is a member of the Audit, Remuneration and Nomination Committees, and Chair of the Employee Engagement Committee. In her executive career she was a partner in PricewaterhouseCoopers (PwC) until 2009, where she worked extensively with large global organisations on turnaround, culture change, delivering value from mergers and acquisitions and cost optimisation programmes. Her financial, people and advisory skills, together with her international business experience across a range of different industries will benefit the further development of the Group.

Clive Watson, Senior Independent Director and Chair of the Audit Committee, stepped down from the Board following the conclusion of the AGM, having served for nine years. On behalf of the Board, I express my thanks to Clive for the valuable contribution he made to the operations of the Board during his tenure.

As a result of Clive's departure, Kevin Thompson joined the Board as an independent Non-Executive Director and Chair of the Audit Committee. Between 1998 and 2018, Kevin held the role of Group Finance Director at Halma plc, before which he was their Group Financial Controller, having qualified as a Chartered Accountant with PwC. He brings a depth of financial, tax and treasury expertise to the Board, as well as broad experience in other areas, including mergers and acquisitions.

Dr Trudy Schoolenberg was appointed Senior Independent Director, following the AGM in May.

On 31st December 2019, Jay Whalen, President of the Watson-Marlow Fluid Technology Group and an Executive Director, retired following 28 years with the Company, nine years as President and over seven years on the Board. On behalf of shareholders and the Board, I gratefully acknowledge the substantial contribution that Jay has made to the Group. Under Jay's leadership Watson-Marlow experienced significant growth and development, becoming an important and highly successful part of the Group.

Jay Whalen's successor, Andrew Mines, joined the Group in November 2019 becoming Managing Director of Watson-Marlow on 1st January 2020 and joining the Group Executive Committee. As of 1st January 2020 the composition of the Board returned to nine members, six of whom are Non-Executive Directors.

On 11th March 2020 we announced that Kevin Boyd, Chief Financial Officer and Executive Director, had informed the Board of his desire and intention to retire from the Group before the end of 2020, following an orderly handover of his duties to a successor. On behalf of shareholders, the Board acknowledges with gratitude the significant contribution to the Group's growth and prosperity made by Kevin and we wish him a happy and healthy retirement.

The Board has initiated a process to search for a suitable external candidate to succeed Kevin and will make a further announcement concerning the appointment of a new Chief Financial Officer once that process has been completed.

All Board changes were part of the succession planning undertaken by the Nomination Committee to recruit Non-Executive Directors with the skills and experience required to support the implementation of our strategy for growth.

Employees

On behalf of the Board, I would like to thank all our employees throughout the world for their individual and collective contributions that have enabled us to deliver another strong set of results in 2019. I would also like to welcome our Thermocoax colleagues into the Group.

The health, safety and well-being of our employees has been, and will remain, our top priority throughout the duration of the COVID-19 outbreak. To date, none of our employees globally, or their immediate family, have tested positive for COVID-19. We have taken multiple actions to protect employees and will continue to monitor and respond accordingly, as the situation develops.

COVID-19

China is the largest territory within the Steam Specialties business and the second largest in the Group, accounting for close to 11% of global sales and 8% of our employee base. Approximately 75% of what we sell in China is made in our two Chinese manufacturing facilities, while only £10 million worth of materials is sourced annually from China for use in our global manufacturing facilities. Due to the COVID-19 outbreak in late January and the delayed return to work following the Lunar New Year holiday, for both ourselves and our customers, trading in China during February was significantly down on expectations. The majority of this shortfall came from our inability to interact with our customers, either because they had not returned to work or due to travel restrictions. By the end of February, our Chinese manufacturing operations were rapidly returning to normal levels of activity, while working closely with their local suppliers to restore our required levels of inbound supply. With reported Chinese infection rates now in decline and provided no resurgence occurs, we assume a return to normal levels of business in China by the end of the second quarter and some recovery of lost business in the second half of the year.

Throughout February, our supply chains outside China remained robust, however the recent COVID-19 outbreak beyond China has made it very difficult to assess the global impact on our business, as the situation is evolving on a daily basis. We have modelled a number of scenarios and currently assume the most likely is that the impact on industrial production globally will be less intense than China's experience. This scenario also assumes the full impact to be contained within the first half of the year with global industrial production recovering in the second half of 2020. We have already initiated a number of cost containment actions to mitigate the adverse impact of COVID-19 on our business globally, without compromising our ability to capitalise on growth opportunities in the second half of this year. Based on the above assumptions, we currently anticipate an impact on annual Group sales and adjusted operating profit of around 2% and 4% respectively, almost entirely affecting the first half of the year. Nevertheless, as the situation is evolving rapidly, the final impact could be significantly different.

Outlook
Global industrial production growth rates, which are a good indicator of our market conditions, slowed throughout the year resulting in an annual growth rate of 1.0% in 2019, compared with 3.1% in 2018. Even before the global spread of the COVID-19 virus, there remained a degree of uncertainty regarding industrial production growth rates in 2020. In their latest forecasts, published in February, Oxford Economics suggested that global industrial production would contract in the first quarter of 2020, before recovering slightly in the second half of the year, with a global growth rate for the year of 0.8%, comprising a 0.3% contraction in developed markets and 2.4% growth in emerging markets. However, given the global spread of the COVID-19 virus, we expect a further deterioration in 2020.

While industrial production growth rates are a strong indicator of conditions in our markets, we are enhancing our ability to outperform our markets through the implementation of our strategy and our focus on self-generated growth. Recent acquisitions within the Electric Thermal Solutions market, but also those in the Steam Specialties and Watson-Marlow businesses, provide opportunities for future organic growth as we broaden their global presence, strengthen their direct sales business model, improve efficiencies and invest for growth.

Currency had little impact on the 2019 results. The currency outlook for 2020 remains uncertain, as Brexit trade negotiations, COVID-19 and US/China tariff negotiations continue to cause volatility. If current exchange rates were to prevail for the remainder of the year there would be a negative 2% impact on sales from translation and a negative 3% impact on profit from translation and transaction, compared with the full year 2019. Movements in exchange rates are often volatile and unpredictable, therefore the actual impact could be significantly different.

Modelling the effect of COVID-19 is extremely difficult; however our current best estimate, based on the assumptions outlined earlier, is that it will impact 2020 sales by 2% and profit by 4%, with almost all the impact affecting the first half of the year. Nevertheless, as the situation is evolving rapidly, the final impact could be significantly different.

The full-year effect from the Thermocoax acquisition in May 2019 is expected to add c.1% revenue growth to the Group in 2020.

Against a very uncertain macroeconomic backdrop, we currently estimate that the combination of the twin headwinds of currency and COVID-19 will offset the underlying organic growth in the business. Despite these headwinds, we will strive to maintain the Group adjusted operating profit margin in 2020 at a similar level to 2019.

Strategic Review

Engineering every day
As a result of our broad industrial and geographical reach, the diversity of our products and our extensive process expertise, our engineered products and solutions are deeply embedded in industrial and commercial sites all over the world. Every day, our engineering expertise contributes to the creation of a more efficient, safer and sustainable world as we help our customers to increase their

operating efficiency, reduce their environmental impacts, improve product quality, provide safer working environments for their employees and achieve regulatory compliance. As we do this we create sustainable value for all our stakeholders.

Business model

Our direct sales business model is highly effective at uncovering opportunities to improve our customers' processes. Our extensive global network of over 1,600 sales and service engineers is unique in number and expertise amongst our competitors. As they walk our customers' sites, our specialist engineers are able to identify often unrecognised needs and design bespoke engineered solutions to meet those needs. These engineered solutions generally have a relatively short payback period of around 24 months or less and are typically paid for out of our customers' operational budgets. Purchasing decisions are therefore made at operational level from budgets which are less likely to be cut in times of recession.

This "self-generated growth" element of our business, combined with the high proportion of sales that derive from end users' maintenance and operating budgets, and the wide diversity of the markets we serve, both geographically and by industry sector, makes our business highly resilient, although not immune, to economic downturns.

Strategy for growth

Six years ago we undertook an extensive strategic review and developed our business strategy, the aim of which is to deliver self-generated growth that outperforms our markets. To accomplish this we are focusing on six strategic themes that are designed to help us do better what we already do well, increase the effectiveness of our direct sales engineers, leverage our strengths in key sectors, take advantage of the most attractive opportunities, expand our addressable markets, and align and direct our resources more effectively to improve business performance.

Our six strategic themes are:

- increase direct sales effectiveness through market sector focus;
- develop the knowledge and skills of our expert sales and service teams;
- broaden our global presence;
- leverage R&D investments;
- optimise supply chain effectiveness; and
- operate sustainably and help improve our customers' sustainability.

As we implement our strategy we ensure that we have the right products, in the right places, at the right times and the highly skilled people with the expertise to provide industry-leading solutions to customers.

While our strategy is primarily one of organic growth, we supplement organic growth through the acquisition of businesses that meet stringent strategic and financial criteria. Acquisitions are generally bolt-ons that expand the capabilities of our businesses through new technologies, skills and geographic coverage, or that increase our addressable market.

Our strategy remains relevant and appropriate for our growing Group and, in 2019, we again saw the benefits of its implementation as we achieved growth strongly ahead of our markets.

Strategic implementation

During 2019, progress continued on the implementation of our strategic priorities and we believe that this was a significant contributing factor to the good financial results and strong organic growth achieved during the year. Some brief examples of progress are outlined below, with further information provided for each business within the Review of Operations.

We have continued to increase the alignment between our direct sales force and our target industries, with a number of our new products developed specifically to meet the needs of a particular industry. For example, in 2019 Spirax Sarco launched its first Clean Steam Generator designed specifically for the Healthcare industry. Third party validated to deliver steam that meets quality standard EN285, the new generator offers healthcare customers the highest steam quality when sterilising equipment, reducing contamination risk and improving patient safety. The launch of the new generator is being supported by tailored marketing materials and a “sterilise once” marketing campaign, that demonstrates an understanding of our Healthcare customers’ steam applications and the challenges they face, and articulates how we can help them overcome them. We have also delivered additional training to our sales engineers to ensure they understand the value that this product will deliver to customers.

Our direct sales business model requires a local sales presence to unlock the self-generated sales that are only possible as a result of having expert sales and service engineers on-the-ground, visiting customers and identifying their problems. A key element of our strategy is the geographic expansion of our direct sales presence, to increase coverage and customer access to this expertise. Four new operating companies began trading in 2019: Watson-Marlow Philippines, Watson-Marlow Colombia, Watson-Marlow Iberia and Gestra China. In addition, Spirax Sarco established a direct presence in Bosnia & Herzegovina, Honduras and Qatar for the first time. Chromalox expanded its direct sales presence, entering Korea and Hungary, and Gestra strengthened its presence in Asia Pacific and the Americas. In addition, five new direct sales offices came into the Group through acquisition: Thermocoax France, Germany, UK, USA and China, which strengthen the geographical presence of our Electric Thermal Solutions business in Europe and Asia.

The success of our business model relies on the expertise of our sales and service teams. Investing in the professional development of our people is an essential element of our strategy. For example, during 2019 we continued to develop and roll out the programmes of the Spirax Sarco Academy. The Academy’s programmes are structured in levels, called “belts”, with each “belt” being allocated a colour and representing an increasing level of expertise. During the year we completed the translation of the “Green belt” into 15 languages, in addition to English, and rolled these out across the Steam Specialties business. We also developed the course materials for the “Blue belt” in English and began to roll these out in our English-speaking companies during the year. In addition, we developed a “Consultative Selling” programme of materials and rolled this out in English and began working on a “Sales Management Development” programme, which we will continue to develop further in 2020.

We continued to focus on the delivery of our Sustainability Strategy, a core component of our business strategy and delivered good progress against many of our targets. For example, as a result of investment in safe-working controls in our recently acquired businesses, Behavioural Based Safety (BBS) training and safety campaigns we reduced our over three-day lost time injury rate from 4.9 per 1,000 employees in 2018, to 3.6 per 1,000 employees in 2019. We rolled out a Group Employee Volunteering Policy, which entitles all Company employees to up to three days of paid volunteering leave per year, and the number of employee volunteering hours increased by 9%, compared with the prior year. We made good progress in reducing our waste generation and also saw a small reduction in water use intensity. Our greenhouse gas emissions intensity saw a small increase, of 1%, during 2019. While the increase was partially as a result of improved reporting and also business growth, we recognise that more needs to be done to ensure a return to the downward trend that we have seen in recent years. Throughout the year, through our bespoke, engineered solutions we continued to deliver significant energy, water and carbon emissions savings for our customers.

Acquisition
During 2019, we acquired Thermocoax Developpement and all of its group companies (Thermocoax) for a cash-free, debt-free consideration of €156 million (£135 million). Thermocoax is a leading designer and manufacturer of highly engineered electric thermal solutions for critical applications in high added-value industries. Its core technology is mineral insulated cable, which comprises single or multiple conductor wires insulated by magnesium oxide, all enclosed within a tubular metal sheath. This construction is extremely robust compared with standard polymer insulated cables and highly resistant to extreme environments such as high temperatures, pressures, vibration and radiation. These cables are transformed into bespoke high value-added functional products, such as heaters and sensors, for specialised, highly certified, critical applications. A particular advantage of Thermocoax's cable heaters is that they are small in size and low in weight compared with conventional tubular heaters, allowing precise delivery of heat.

Thermocoax is headquartered near Paris, France and has four manufacturing facilities in Normandy, one in Georgia, USA and a further facility in Heidelberg, Germany.

Upon acquisition, Thermocoax along with Chromalox, became part of our newly named Electric Thermal Solutions business. Both companies have a strong reputation amongst customers and well-recognised brands, which they will retain. Thermocoax is a good strategic fit for the Group, doubling our Electric Thermal Solutions business in Europe and Asia. At the same time, Chromalox has the scale, contacts and reputation in the USA that will support faster penetration of Thermocoax into that market.

In September 2019, Dominique Mallet was appointed President of the Electric Thermal Solutions business. Dominique was the Chief Executive Officer of Thermocoax for over five years and has a strong track record of successfully growing businesses in sectors relevant to the Electric Thermal Solutions business.

Thermocoax was accretive to Group earnings in 2019.

Sustainable value creation
Throughout the year our diverse stakeholder base benefited from our value creation as we utilised our direct sales business model to meet customer needs, implemented our strategy for growth and delivered a good financial return for investors. We achieved this while operating sustainably, in a way that we believe preserves value for future generations and takes into account the current and future needs of all our stakeholder groups.

Review of Operations

	2018	Exchange	Organic	Acq'n & disposal	2019	Organic	Reported
Revenue	£1,153.3m	-	£73.9m	£15.2m	£1,242.4m	+6%	+8%
Adjusted operating profit	£264.9m	(£2.0m)	£18.2m	£1.6m	£282.7m	+7%	+7%
Adjusted operating margin	23.0%				22.8%	+10 bps	-20 bps
Statutory operating profit	£299.1m				£245.0m		-18%
Statutory operating margin	25.9%				19.7%		-620 bps

Introduction
Despite a very low growth macro-economic environment in 2019 we achieved strong organic growth and delivered record revenue and adjusted operating profit. We created value for our stakeholders, continued to invest in our businesses and implement our strategy to ensure a strong foundation for continued, sustainable growth.

Market environment

Our Steam Specialties, Electric Thermal Solutions and Watson-Marlow businesses all provide engineered products, services and solutions that play a critical role in industrial processes worldwide.

Steam is used across a broad range of industries, in all geographical markets, for a wide range of applications including heating, curing, cooking, drying, cleaning, sterilising, space heating, humidifying, vacuum packing and producing hot water on demand. Steam is relatively easy to control, environmentally safe, clean and sterile, and is capable of transferring large energy loads (in the form of heat) into industrial processes. A complementary medium to steam, with a similarly broad industrial and geographic reach, electrical heating solutions are particularly utilised in applications that require rapid "on-off" control, higher temperatures, easy installation, or zero-emissions at point of use.

Peristaltic and other niche pumps and associated fluid path components are widely used across an extensive range of industries to address mission critical or difficult pumping problems. Peristaltic pumps are particularly suitable for hygienic applications (as the fluid is contained within a tube, sterile tubing creates a sterile pump), precise metering or low-shear applications, as well as handling corrosive or abrasive materials that would otherwise damage the pump.

The wide applicability of our products across a broad range of industries, combined with our extensive geographical presence mean that conditions in our markets closely correlate with industrial production growth rates.

Throughout 2019 global industrial production growth declined each quarter, continuing the downward trend that commenced in 2018. Averaging 1.0% for the year, global industrial production growth was significantly lower than the 3.1% seen in 2018 and much weaker than initially forecast. Emerging markets saw 3.0% growth while mature markets experienced a 0.5% contraction compared with the prior year. With organic revenue growth of 6% we significantly outperformed our markets, as a result of the successful implementation of our strategy for growth.

The continuing uncertainty surrounding Brexit had an impact on market confidence and contributed to the negative industrial production growth rates seen in the UK and Europe in 2019. Nevertheless, while dampening market confidence in the UK and some of our European markets, overall Brexit uncertainty had a relatively limited impact on our business as a whole during 2019 as around 93% of our revenue and profit was generated outside of the UK during the year.

Forecasters are currently expecting global industrial production growth to slow further in 2020, to average 0.8% for the year, but with the COVID-19 outbreak still evolving we assume this could deteriorate further. Looking forward we remain cautious and are planning for the continuation of a low-growth environment throughout 2020.

Summary of progress in 2019

Sales

Overall the Group achieved organic sales growth of over 6%, with 6% organic growth in the Steam Specialties business and over 12% organic growth in Watson-Marlow. Within the Electric Thermal Solutions business, sales were down 1% in Chromalox at constant currency, following a strong 9% sales growth in 2018. Thermocoax, which joined the Group on 13th May, contributed sales of £27.9 million for the period under ownership. HygroMatik was divested on 30th November 2018 and as a result made no contribution to sales in 2019, compared with £12.7 million in the prior year.

At £1,242.4 million, Group sales were up 8% (2018: £1,153.3 million). Although varying by business and geography, foreign exchange had no overall impact on Group sales.

Geographically, the Steam Specialties business, which accounted for 61% of Group revenue in 2019, saw growth in all regions. Sales of £755.4 million, were up 3% on a reported basis, 6% on an organic basis.

The Electric Thermal Solutions business, which accounted for 15% of Group revenue in 2019, achieved sales of £186.1 million, 20% ahead of the prior year, with the increase a result of the acquisition of Thermocoax. On an organic basis, sales were 1% lower.

Watson-Marlow accounted for 24% of Group revenue in 2019 and delivered £300.9 million of sales, a 13% increase over the prior year, up 12% organically. Growth was achieved across all geographic regions.

Adjusted operating profit

Group adjusted operating profit was 7% ahead of the prior year on an organic basis and, at £282.7 million, was also up 7% at reported exchange rates including acquisitions and disposals. The strong growth reflects the increase in revenue, a net 1% positive impact from the acquisition of Thermocoax and disposal of HygroMatik, and margin expansion in the Steam Specialties business, partially offset by a 1% negative translational and transactional exchange impact, slight margin dilution in Watson-Marlow as we invest to maintain growth and margin dilution from Chromalox due to operational issues in the first half of the year, particularly in Europe.

Within the Steam Specialties business, adjusted operating profit of £177.9 million was 10% higher than the prior year on an organic basis, with all three geographical segments delivering organic adjusted operating profit growth. On a reported basis, adjusted operating profit was 5% ahead, reflecting the divestment of HygroMatik on 30th November 2018 and the resulting non-repeat of £3.8 million of adjusted operating profit that the business contributed in 2018, as well as a £4.8 million adverse impact from currency movements.

Adjusted operating profit in the Electric Thermal Solutions business, at £24.7 million, was up 8% on the prior year on a reported basis. Chromalox had adjusted operating profit of £19.3 million, down 19% organically as we address unsatisfactory performance in the company's French operations, respond to manufacturing inefficiencies and continue to step up our investments for future growth and improved profitability. All of the Chromalox profit decline occurred in the first half of 2019. Thermocoax contributed £5.4 million to adjusted operating profit. Currency movements increased adjusted operating profit by 4%.

Watson-Marlow's organic adjusted operating profit grew by 11%, despite continued investment in the business. Reported growth of 13% was aided by a currency tailwind.

Adjusted operating profit margin

At 22.8% the Group adjusted operating profit margin was 20 bps lower than the prior year, due to the disposal of the highly profitable but non-strategic HygroMatik business and a negative exchange impact. On an organic basis, the Group margin increased 10 bps.

Within the Steam Specialties business, the adjusted operating profit margin increased by 40 bps on a reported basis to 23.6%, driven by margin progress across all three geographical segments, offset by the disposal of the highly profitable HygroMatik business and a negative exchange impact. Organically, the adjusted operating profit margin increased by 100 bps. On a reported basis, the adjusted operating profit margin of the Electric Thermal Solutions business fell 140 bps to 13.3% as a result of lower profitability in Chromalox in the first half of the year, partially offset by a small positive exchange impact and Thermocoax's higher adjusted operating profit margin of 19.5%. On an organic basis the margin fell by 270 bps, wholly due to the first half deterioration, but the margin was 30 bps higher in the second half of the year compared to the same period in 2018. Watson-Marlow's operating margin was 20 bps lower, 60 bps lower on an organic basis, as we continue to invest in the business to sustain growth.

Statutory operating profit and margin

Statutory operating profit decreased from £299.1 million to £245.0 million, as a result of the non-repeat of the profit on disposal of HygroMatik (£47.4 million), the disposal of property (£6.5 million) and a credit resulting from the post-retirement benefit plan in the USA being frozen to future accrual (£6.0 million), which all contributed to statutory profit in 2018. As a result the margin fell from 25.9% to 19.7%.

Steam Specialties: overview

	2018	Exchange	Organic	Acq'n & disposal	2019	Organic	Reported
Revenue	£733.5m	(£7.4m)	£42.0m	(£12.7m)	£755.4m	+6%	+3%
Adjusted operating profit	£170.1m	(£4.8m)	£16.4m	(£3.8m)	£177.9m	+10%	+5%
Adjusted operating margin	23.2%				23.6%	+100 bps	+40 bps
Statutory operating profit	£222.5m				£172.6m		-22%
Statutory operating margin	30.3%				22.8%		-750 bps

Market overview

Europe, Middle East and Africa (EMEA) as a whole saw a small contraction in industrial production during 2019. Brexit, political unrest and economic challenges affected market conditions and dampened industrial production growth rates in several countries. Our large European markets were particularly challenging, with industrial production down 3.4% in Germany, down 0.6% in the UK and down 1.2% in Italy, compared with the prior year. Of our larger European markets, only France saw growth, but at a low rate of just 0.5%. Elsewhere across EMEA, the picture was more mixed with some of our smaller markets such as Belgium, Denmark, Egypt, Russia, Spain and Sweden seeing growth between 0.9% and 4.4%, but other markets, such as the Netherlands, Norway, South Africa and Turkey, experiencing contraction.

Excluding China, Asia Pacific saw industrial production contract by 0.3%, as export-dependent economies were affected by the trade dispute between China and the USA, resulting in investment decisions to carry inventory, expand capacity or build new plants, being delayed or cancelled. Including China, industrial production in Asia Pacific grew by 2.5%. The industrial production growth rate in China slowed for the first three quarters and averaged 5.7% for the year. Korea, our second largest market in the region, saw contraction of 1.1% for the year as a whole, with a more marked contraction in the first half of the year that eased somewhat in the second half. Japan, Singapore, Thailand and Taiwan also experienced negative industrial production growth rates. Elsewhere in the region, industrial production growth was more mixed, with good growth in Vietnam, Indonesia and the Philippines, moderate growth in Australasia and low growth of 1.0% in India.

Within the Americas, industrial production growth slowed in consecutive quarters in North America, compared with the same period in the prior year, turning negative in the second half and averaging 0.6% for the year. Canada saw a 1.1% contraction for the year. The USA started the year relatively strongly but its industrial production growth rate slowed each quarter and reached a negative 0.9% in the final quarter and averaged 0.8% for the year. Market conditions in Latin America were challenging, with an average contraction of 1.7% for the region for the year. With the exception of some of our smaller markets in the region, such as Colombia and Costa Rica, which saw low growth, all of our key markets in the region experienced declining industrial production in 2019. Argentina saw the strongest contraction, of nearly 5%, as the country experienced the political uncertainty of a regime change and continued to suffer from a significant currency devaluation and recessionary conditions. Mexico continued to experience uncertainty, primarily as a result of trade tensions between the USA and China and the impact of the US Administration's influence on corporations off-shoring production, resulting in a 1.6% contraction. Brazil experienced a 1.1% decline in industrial production during 2019.

Progress in 2019

Against a backdrop of low or negative industrial production growth in many of our core markets during 2019, good progress was made in the Steam Specialties business. With organic revenue growth of 6%, we significantly outperformed our markets, delivering £755.4 million of revenue in 2019. On a reported basis, revenue was up 3%, impacted by the sale of HygroMatik in November 2018 and a negative impact from exchange movements.

Adjusted operating profit of £177.9 million was also strongly ahead; up 10% on an organic basis and up 5% on a reported basis. Reported growth was lower than organic growth due to the divestment of highly profitable HygroMatik and a negative exchange impact. At 23.6%, the Steam Specialties business' adjusted operating profit margin was up 100 bps organically and up 40 bps on a reported basis.

Gestra, which joined the Steam Specialties business in May 2017, generates over 40% of its sales in Germany and thus has a high exposure to conditions in that market. As outlined above, Germany experienced a marked contraction in industrial production growth in 2019. The German chemical industry, a key sector for Gestra, was particularly weak throughout the year, as were OEM boiler makers, who were affected by softening global demand and lower industrial production growth rates. In addition, distributor sales were affected by political and economic uncertainty in Europe. Despite these headwinds and a very tough comparison against 10% growth in 2018, Gestra outperformed its markets maintaining sales at 2018 levels and growing its order book, while increasing the adjusted operating profit margin by 110 bps.

On 3rd December 2018 we announced the disposal of HygroMatik. In 2018 HygroMatik reported sales of £12.7 million and £3.8 million of adjusted operating profit.

Statutory operating profit decreased from £222.5 million to £172.6 million primarily as a result of a number of non-recurring events in 2018; the profit on the disposal of HygroMatik (£47.4 million), the disposal of property (£6.5 million) and a credit resulting from the post-retirement benefit plan in the USA being frozen to future accrual (£6.0 million).

Steam Specialties: Europe, Middle East and Africa (EMEA)

	2018	Exchange	Organic	Acq'n & disposal	2019	Organic	Reported
Revenue	£344.4m	(£3.6m)	£7.6m	(£12.7m)	£335.7m	+2%	-3%
Adjusted operating profit	£69.3m	(£0.8m)	£2.3m	(£3.8m)	£67.0m	+4%	-3%
Adjusted operating margin	20.1%				20.0%	+30 bps	-10 bps
Statutory operating profit	£111.5m				£63.4m		-43%
Statutory operating margin	32.4%				18.9%		-1,350 bps

Progress in 2019

Despite the zero-growth environment across the region as a whole and industrial production contraction in most of our core markets, sales in EMEA increased by 2% on an organic basis. At reported exchange rates and including the £12.7 million loss of revenue due to the divestment of HygroMatik, sales of £335.7 million were down 3% on the prior year.

Organic sales for Spirax Sarco companies were ahead in most countries in the region, including our mature markets of the UK, Germany, Italy and France, where market conditions were particularly poor, reflecting the successful implementation of our strategy. Our focus on helping customers to identify process, productivity, energy and sustainability improvements, and our ability to offer bespoke, engineered solutions that deliver customer value – self-generated small project sales – offset a reduction in large capital projects in the region that was caused by market uncertainty. Maintenance, repair and overhaul (MRO) base business was also robust.

The Pharmaceutical sector was a good driver of growth for a number of our sales companies in Central and Eastern Europe, sales into the Healthcare industry were generally robust and our strategic focus on the Food and Beverage industries delivered growth across the region, particularly in France and South Africa. Growth in these priority sectors helped to offset a small decline in OEM business, Oil & Gas and a weakness in the German Chemical industry, while a heightened focus on our strategic accounts, with an accompanying increase in the number of energy audits and steam system surveys, delivered good results.

As outlined earlier, Gestra, whose sales in EMEA accounted for 85% of its total revenue, struggled to make progress in very challenging markets that were predominantly showing negative growth and finished the year with a 2% organic decline in EMEA.

At £67.0 million, adjusted operating profit was 3% behind, due to the divestment of HygroMatik in November 2018 and a currency headwind. Organically, adjusted operating profit was up 4%, reflecting the organic sales growth and margin enhancement. The adjusted operating margin decreased by 10 bps to 20.0%, due to the divestment of highly profitable HygroMatik. Organically, the margin improved by 30 bps, primarily as a result of growth in self-generated project sales, which generally have higher margins than larger capital projects, and improvements to profitability in Gestra's European operations.

Statutory operating profit decreased from £111.5 million to £63.4 million, primarily due to the £47.4 million profit from the sale of HygroMatik in 2018.

Steam Specialties: Asia Pacific

	2018	Exchange	Organic	Acq'n & disposal	2019	Organic	Reported
Revenue	£232.7m	£0.1m	£17.0m	-	£249.8m	+7%	+7%
Adjusted operating profit	£63.9m	£0.3m	£8.3m	-	£72.5m	+13%	+14%
Adjusted operating margin	27.5%				29.0%	+140 bps	+150 bps
Statutory operating profit	£69.9m				£72.5m		+4%
Statutory operating margin	30.0%				29.0%		-100 bps

Progress in 2019
Sales of £249.8 million were up 7% on both an organic and reported basis.

China saw strong, double-digit growth and Korea, our second largest market in the region, saw good growth despite challenging market conditions. Elsewhere in the region sales were more mixed with strong growth in Singapore, India, and robust growth in Taiwan and New Zealand, but lower sales in Australia and some of our smaller markets such as the Philippines, Indonesia and Vietnam, against tough compares.

Sales growth in the region came from a combination of large project orders, self-generated business and MRO sales. Gestra, which has a small presence in the region, saw double-digit growth and benefited from the new sales company in China, which began trading in April 2019.

We are very pleased with the performance of our Indian operation, which was established as a sales and manufacturing location in 2016. As a result of strong domestic revenue growth and an increase in inter-company manufacturing volume, the company achieved a "break-even" position in 2019, one year ahead of plan, and we look forward to seeing continued sales and profitability growth in 2020.

Adjusted operating profit of £72.5 million increased 13% organically, with a small positive impact from exchange resulting in a reported increase of 14%. The adjusted operating margin of 29.0% was ahead 140 bps organically due to operational gearing from volume growth, active price management and increased localisation of products from our manufacturing plants in China and India, which more than covered increased costs elsewhere in the business.

Statutory operating profit increased from £69.9 million to £72.5 million despite the profit on the disposal of property (£6.5 million) in 2018.

Steam Specialties: The Americas

	2018	Exchange	Organic	Acq'n & disposal	2019	Organic	Reported
Revenue	£156.4m	(£3.9m)	£17.4m	-	£169.9m	+11%	+9%
Adjusted operating profit	£36.9m	(£4.3m)	£5.8m	-	£38.4m	+18%	+4%
Adjusted operating margin	23.6%				22.6%	+120 bps	-100 bps
Statutory operating profit	£41.1m				£36.7m		-11%
Statutory operating margin	26.3%				21.6%		-470 bps

Progress in 2019

At £169.9 million, sales were ahead 9% on a reported basis, and up 11% on an organic basis, with a 2% negative impact from currency movements. Excluding our Argentine business, where the further devaluation of the currency distorts both organic growth (due to large price increases) and currency movements, organic growth was 5% and reported growth 10%.

Organic sales were up 6% in North America. Both Spirax Sarco and Gestra achieved strong organic sales growth in the USA as we expanded our direct sales presence. Our customer facing employees in the USA and throughout the region are benefiting from training, delivered through the Spirax Sarco Academy, which equips them with the consultative selling tools to help them uncover our customers' process challenges and deliver the bespoke thermal energy solutions needed to resolve them. While strengthening our direct sales presence, we have continued to work with our distribution network to drive growth.

In Latin America, organic sales were ahead 20%, with good organic growth across all but one of our operations in the region and a positive benefit from Argentina's US dollar-denominated pricing. Excluding Argentina, organic sales growth was 8% in the region. Hiter, our Brazilian controls business, which we acquired in 2016, delivered another record year of double-digit growth and expanded its overseas sales footprint. Our Spirax Sarco company in Brazil also performed strongly, despite the country's challenging economic conditions. Argentina performed well to withstand the very difficult economic landscape, benefiting from in-country manufacturing and dollar-based pricing. Only Mexico struggled to secure growth and saw a fall in sales.

Gestra, which has a relatively small local presence in the region, continued to strengthen its direct sales presence in the Americas, while maintaining its long-standing distribution relationships. The Steam Specialties business' dual brand strategy and sectorised market approach is enabling both Gestra and Spirax Sarco to achieve growth and offer customer choice in the region. As a result, during 2019 Gestra saw strong double-digit growth in the Americas.

Adjusted operating profit in the Americas was ahead of the prior year; up 4% to £38.4 million. On an organic basis, adjusted operating profit was up 18%. Unlike 2018, reported profit in Argentina fell back as organic growth failed to offset currency devaluation. The reported adjusted operating profit margin was down 100 bps to 22.6% due to the impact of currency. On an organic basis, the margin rose 120 bps in the region. Excluding Argentina, the increase was 60 bps.

Statutory operating profit reduced from £41.1 million to £36.7 million as a result of the non-repeat of a credit from the post-retirement benefit plan in the USA being frozen to future accrual (£6.0 million).

Steam Specialties strategy update

Throughout 2019 we continued to implement the "Customer First" Steam Specialties business strategy, with all three geographic segments benefiting from the resulting operational improvements.

The ability of our sales and service engineers to self-generate sales through uncovering problems and providing bespoke solutions to meet customers' needs, became increasingly important in the negative or low-growth global industrial production environment during 2019. Five years of intensive strategic execution, investments in our direct sales business model and extensive training delivered through the Spirax Sarco Academy were reflected in the above-market growth achieved in 2019.

While strengthening and consolidating our position in our mature and emerging markets, we continued to expand our geographic footprint. In 2019 we established a Spirax Sarco direct presence in Bosnia & Herzegovina, Honduras and Qatar and our newly established Gestra company in China commenced trading. We also strengthened Gestra's direct sales presence in the Asia Pacific and Americas regions.

Our strategic focus on our priority sectors delivered good results, although OEMs and Oil & Gas were affected by the poor market conditions. A focus on customer steam quality, with customer educational campaigns, targeted marketing materials and the development of a new clean steam generator designed specifically for the Healthcare industry, delivered results in both the Healthcare and Food & Beverage industries.

In 2019 we initiated project OPAL, the implementation of a new integrated IT system to improve operational effectiveness and deliver improved customer focus and insight, effective strategic account management and rapid quoting and processing to further improve our customer delivery performance. The new system will incorporate ERP (Enterprise Resource Planning), CRM (Customer Relationship Management), CPQ (Configure, Price, Quote) and BI (Business Intelligence) modules. It is envisaged that the roll-out will extend over five years. We also continued to invest in our manufacturing sites through our "Future factory" programme, for example upgrading CNC machines in the UK, making improvements to the machining centres in Brazil, Argentina and Mexico, and stepping up capital investments in Gestra's manufacturing facility in Germany, leading to increased manufacturing efficiencies.

In the final quarter of the year, Gestra released the new SPECTORconnect boiler control range, offering customers unrivalled safety features, tools to enable them to monitor boiler efficiency, improve maintenance and better prevent breakdown, as well as improved digital monitoring to enable customers to have a better understanding of on-site energy usage.

We have continued to strengthen our safety culture, with intensive BBS (Behavioural Based Safety) training rolled out to managers during 2019, which is continuing into 2020, and the continued implementation of our Sustainability Strategy in support of all our stakeholders.

Steam Specialties outlook
The latest forecasts suggest that the global industrial production growth rate will remain low throughout the year, averaging 0.8% in 2020. Developed markets are expected to contract by an average 0.3% for the year, while the emerging markets are expected to grow 2.4%.

The UK, France, Germany and Italy are all currently forecasted to contract further in 2020, with conditions elsewhere in EMEA remaining broadly positive, although at low levels. The average growth rate is forecasted to be 0.9% for the region as a whole. Within the Americas, conditions in the USA are expected to slow further with year-on-year industrial production rates contracting by 0.5%. Within Latin America, conditions are expected to remain challenging, but returning to low growth of around 0.7% for the region as a whole, if Brazil, in particular, picks up as forecasted. Within Asia Pacific, Chinese growth is expected to slow further, although conditions elsewhere in the region may be slightly better than seen in 2020.

The Steam Specialties business has a higher exposure to the unfolding COVID-19 situation, which we anticipate could further reduce global industrial production growth in the first half of the year. We are therefore planning for a low-growth environment and the continuation of challenging market conditions in 2020. Nevertheless, thanks to our resilient business model, ability to self-generate sales, significant maintenance and repair revenues, broad geographic reach and the successful implementation of our strategy, we remain confident in our ability to continue outperforming our markets.

Electric Thermal Solutions

	2018	Exchange	Organic	Acq'n	2019	Organic	Reported
Revenue	£154.6m	£5.1m	(£1.5m)	£27.9m	£186.1m	-1%	+20%
Adjusted operating profit	£22.8m	£1.0m	(£4.5m)	£5.4m	£24.7m	-19%	+8%
Adjusted operating margin	14.7%				13.3%	-270 bps	-140 bps
Statutory operating profit	£12.1m				£7.9m		-35%
Statutory operating margin	7.8%				4.2%		-360 bps

Market overview
Chromalox, which accounted for 85% of revenue in the Electric Thermal Solutions business in 2019, generates 80% of its revenue in North America and thus has a high exposure to industrial production growth rates in the USA and Canada, which slowed markedly during the year, averaging just 0.6%. A number of Chromalox's market sectors, such as Power Generation and Marine, saw positive growth in 2019 but this was offset by a slowdown in other sectors, such as OEM, Oil & Gas and Chemical, which account for around 47% of sales. The company saw a strong contraction in the Oil & Gas industry in EMEA as economic conditions in the region and political unrest in the Middle East delayed projects and hampered growth. Shipbuilding, offshore projects and Liquefied Natural Gas markets strengthened compared with the prior year and Chromalox saw progress in these industries, particularly in Asia Pacific.

Thermocoax, acquired in May, accounted for 15% of the Thermal Electric Solutions business' revenue in 2019. The company has a high exposure to industrial production growth rates in Europe with three quarters of its revenue generated through its companies in France, Germany and the UK. Industrial production contracted in Europe in 2019, creating a difficult operating environment. By industry, Thermocoax saw progress in OEM semiconductor markets, Aeronautics and Space, but found conditions more challenging in the Nuclear sector where global uncertainty, particularly in China and India, led to project delays.

Progress in 2019

The Electric Thermal Solutions business delivered £186.1 million of sales in 2019, up 20% on a reported basis, with Thermocoax adding £27.9 million for the seven and a half months under ownership. A 3% exchange tailwind more than offset a 1% organic decline in Chromalox's revenue.

Chromalox delivered £158.2 million of sales in 2019, a 1% organic decline following strong 9% organic growth in 2018. We saw sustained maintenance, repair and overhaul demand and continued the positive trend towards an increasing number of smaller projects and standard product sales, to offset a decline in large, custom-engineered capital project sales. This trend was particularly noticeable in the Heat Trace product line, which saw a reduction in heavy industry projects towards more engineering services and material sales. A focus on small projects and recurring revenue also produced an uplift in Component Technology sales, particularly in the renewable energy sector. We benefited from the direct sales presence that we established in Latin America (Brazil and Chile) in 2018 and saw good growth in these countries in 2019. Sales in Asia Pacific also saw growth in 2019.

In the full year of 2019, sales in Thermocoax fell by 5% at constant currency, partially due to disruption by the acquisition process in the first part of the year and partially as a result of customer rescheduling of shipments in the latter part of the year. This had the result of expanding the order book by 18% in the year.

Adjusted operating profit was £24.7 million for the Electric Thermal Solutions business up 8% on a reported basis due to the acquisition of Thermocoax and a 4% currency tailwind. On an organic basis, profit was down 19% due to the operational issues, particularly in Europe, encountered in the first half of the year by Chromalox.

The adjusted operating profit margin for the Electric Thermal Solutions business as a whole was down 140 bps with a 270 bps organic decline in Chromalox, partially offset by the higher operating margin of Thermocoax and a positive contribution from currency. In August 2019, we reported the disappointing profitability of Chromalox in the first half of the year, with an operating profit margin of 9.7%. Chromalox's second half operating margin was much stronger at 15.1%, which was above the 14.7% full year margin achieved in 2018, as we began to see indications of operational performance improvement resulting from actions initiated in the first half of the year. Thermocoax's adjusted operating margin was 19.5% for the period under ownership.

Statutory operating profit decreased from £12.1 million to £7.9 million due to the amortisation of acquired intangibles recognised on the acquisition of Thermocoax.

Strategy update

We welcomed electric thermal solutions specialist, Thermocoax, into the Group in May 2019. Thermocoax expands our technical offering to customers, particularly in highly regulated and high-tech industries such as Nuclear, Aeronautic, Space, Power Generation and Semiconductor. It also doubles the Electric Thermal Solutions business footprint in Europe and Asia, which can be leveraged to improve

Chromalox's access to those markets. At the same time, Chromalox's strong brand and presence in North America, will support faster market penetration for Thermocoax into that important market.

Chromalox and Thermocoax both have strong, well-respected brands and they will maintain these within the newly renamed Electric Thermal Solutions business. In September 2019, Thermocoax's Chief Executive Officer, Dominique Mallet, was appointed President of the Electric Thermal Solutions business. We are confident that the business will benefit from Dominique's experienced leadership.

Chromalox launched a variety of new products during 2019, including a new Medium Voltage electric steam generator, utilising the company's patented DirectConnect technology; the ProtoAir IIoT Gateway, that can be installed with any Chromalox digitally enabled product to provide seamless real time connectivity to the Cloud allowing for remote access and monitoring; and a wide range of "pick and ship" products, including heaters, flanges and control panels, which feature universal designs allowing for fast quoting, fast delivery and competitive pricing, when compared with more customer-bespoke products.

During 2019, we broadened Chromalox's direct sales footprint, establishing an initial direct sales presence in Korea and Hungary, to better support customers in those countries.

In addition to investing for long-term growth, Chromalox undertook a range of initiatives to improve profitability throughout the year, including the adoption of Spirax Sarco price management tools, a strategic pricing review and reducing central costs.

In February 2020 we announced to our workforce in Chromalox France the intention to reorganise the operation to reduce losses and help bring the European operation of Chromalox to break-even by the end of 2021. This will entail a restructuring of the supply chain to reduce manufacturing activity in France, which will result in a reduction of the workforce. Also, in early March we divested Chromalox's small Canadian subsidiary, ProTrace, which made a loss of £0.2 million in 2019. The combined cost of these two projects, which is estimated to be £4.2 million, will be taken as an adjusting item in 2020. The annualised benefit, which should begin to be seen from July 2020 is in the region of £1.2 million.

Outlook

Industrial production growth rates are forecasted to remain low or contract further in the core markets of the Electric Thermal Solutions business in 2020, with many of the factors affecting economic and political uncertainty during 2019 continuing into the current year. Nevertheless, the business is well-placed to make progress in 2020. We will continue to benefit from broadening our geographical direct sales footprint and the new products that were launched during the last quarter of 2019 and early in 2020 align strongly with customer trends such as decarbonisation, emissions control, energy efficiency, process productivity and digitisation, and should contribute to sales growth in 2020. We remain confident that all these actions will offset the inevitable market headwind resulting from the unfolding COVID-19 situation.

Watson-Marlow Fluid Technology Group (Watson-Marlow)

	2018	Exchange	Organic	Acq'n & disposal	2019	Organic	Reported
Revenue	£265.2m	£2.3m	£33.4m	-	£300.9m	+12%	+13%
Adjusted operating profit	£84.8m	£1.8m	£9.2m	-	£95.8m	+11%	+13%
Adjusted operating margin	32.0%				31.8%	-60 bps	-20 bps
Statutory operating profit	£77.5m				£82.7m		+7%
Statutory operating margin	29.2%				27.5%		-170 bps

Market overview
Industrial production growth is also a good indicator of economic conditions in Watson-Marlow's markets because of the company's wide geographical spread and diversity of end user industries. With a smaller but broadly similar geographic footprint to the Steam Specialties business, the market overview commentary found within the Steam Specialties business commentary is largely applicable to the Watson-Marlow business. However, Watson-Marlow's much greater weighting (c.50% of sales) to the Pharmaceutical & Biotechnology industry means that it is more affected by conditions in that market, than the Group as a whole. Throughout the year, the Pharmaceutical & Biotechnology market remained buoyant, as did the Medical Diagnostics, Mining and Water & Environmental industries, which are all key sectors for Watson-Marlow. General industrial markets were more challenging, reflecting the low industrial production growth rates globally.

Progress in 2019
Watson-Marlow delivered sales of £300.9 million in 2019, a 13% reported increase, with exceptional organic growth of 12% and a 1% currency tailwind. Strong organic sales growth was delivered across all geographical regions.

Within Europe and the Middle East, Watson-Marlow again achieved strong growth across most of our territories, including double-digit growth in the UK. Our relatively new sales companies in Ireland and the UAE both delivered excellent growth. Across the region, growth was largely driven by sales into the Biopharmaceutical sector with our BioPure, Flexicon, Watson-Marlow Tubing and Watson-Marlow Pumps products and solutions all achieving double-digit growth. General Industry and Food & Beverage sales were down slightly, hampered by the poor industrial production growth rates in the region and against a strong compare. In Asia Pacific, sales were also well ahead of the prior year, with China, Korea and Japan all performing strongly, and with excellent growth in some of our smaller markets. The Biopharmaceutical and Medical sectors were key drivers of growth in the region. Within the Americas, the Biopharmaceutical, Medical, Environmental and Mining industries all saw good growth, with sales growth in all countries in the region, with the exception of Mexico which was flat year-on-year.

Aflex, which was acquired at the end of November 2016, delivered solid growth, benefiting from the continuing conversion of distributor to direct sales across many of Watson-Marlow's direct sales territories. Work continues apace on the construction of Aflex's new purpose-built factory in the UK, which will consolidate the company's four UK factories onto one site, increasing capacity and production efficiency. The new facility, at a cost of over £20 million, is on schedule for completion in mid-2020.

Watson-Marlow's adjusted operating profit was £95.8 million, up 13% at reported exchange rates and up 11% organically, with a 2% exchange tailwind. At 31.8% the reported adjusted operating profit margin was down 20 bps. On an organic basis, the margin fell by 60 bps due to increased investment to sustain above market levels of growth.

Statutory operating profit increased from £77.5 million to £82.7 million although the margin fell by 170 bps to 27.5%.

Strategy update
Watson-Marlow's geographic expansion continued in 2019, with new sales companies established and trading in the Philippines, Colombia and Iberia (Spain and Portugal). The preparatory work was also completed for a new sales company to begin trading in Hungary in 2020.

During the year we broadened our direct sales product portfolio as our sales operations in Austria, Switzerland, Italy, Japan, India, Brazil and South Africa began selling Aflex products directly to their customer base, with sales growing as a result.

New product development remains a key strategic priority, with a number of product launches during the year, including the Qdos ReNu PU pumphead, developed specifically to address the pumping needs of the Wastewater Treatment industry; a new range of Puresu® assemblies, combining Watson-Marlow tubing with BioPure connectors and fittings, assembled, sterilised and ready for use; an expansion of BioPure's gasket range, using new materials to meet consistent quality demands for Bioprocessing; and Flexicon FPC60, a highly accurate peristaltic fill and finishing system that allows users to create their own bespoke filling solution to suit small-batch applications. The Qdos ReNu PU pumphead, in particular, has outperformed expectations, delivering sales more than double its plan in the first six months following launch in June 2019.

Throughout 2019, following the acquisition of a small, pre-revenue company in January 2018, we continued to develop an innovative product that will expand the technical capabilities of peristaltic pumps and extend the life of pump consumables, reducing maintenance and downtime for customers. We expect our first product as a result of this acquisition to be launched in the summer of 2020. As a result, a deferred "earn-out" of €5.8 million (£5.2 million) was paid in the first quarter of 2020.

Outlook

Globally, industrial production growth rates are expected to remain low throughout 2020. We remain confident in our ability to strongly outperform industrial production growth as Watson-Marlow's core industries, notably Pharmaceutical, Biotechnology, Biopharmaceutical and Medical devices, look to remain strong. Going into 2020 we have a strong pipeline of new products for launch during the year. We will continue to convert Aflex product sales from distributor to direct, utilising our global direct sales network to leverage growth. In recent years we have seen excellent growth in our new sales companies as we expand into new territories and we anticipate this continuing in our three new companies established in 2019, as well as in our other recently established companies. We anticipate that Watson-Marlow will have a lower exposure to the effects of the unfolding COVID-19 situation due to its strong position in the Biopharmaceutical industry, which we assume will be less impacted. As result of all of these factors, we are well positioned to continue to deliver above-market organic sales growth in 2020.

Financial Review

The Group reports under International Financial Reporting Standards (IFRS) and also uses adjusted and organic figures where the Board believe that they help to effectively monitor the performance of the Group and aid users of the Financial Statements to draw comparisons with our peers. Certain alternative performance measures also form a meaningful element of Executive Directors' variable remuneration and some are used in calculating debt covenants. Adjusted results quoted in the text below are referred to as "adjusted" (see Note 2). A reconciliation of adjusted operating profit to statutory operating profit is given below and more detail can be found in Note 2 to the Financial Statements.

As we are a multi-national Group of companies that trade in a large number of foreign currencies and regularly acquire and sometimes dispose of companies, we also refer to organic performance measures. Organic measures strip out the effects of the movement of foreign currency exchange rates and of acquisitions and disposals. The percentage organic growth or decline is measured as the constant currency movement in those businesses that were part of the Group at the end of the current year and the beginning of the prior year, i.e. excluding the effects of any acquisitions or disposals made in either year. The Board believe that this allows users of the Financial Statements to gain a further understanding of how the Group has performed.

	Operating profit 2019 £m	**Operating profit margin 2019 %**	Operating profit 2018 £m	Operating profit margin 2018 %
Europe, Middle East and Africa	67.0	20.0%	69.3	20.1%
Asia Pacific	72.5	29.0%	63.9	27.5%
Americas	38.4	22.6%	36.9	23.6%
Steam Specialties	**177.9**	**23.6%**	**170.1**	**23.2%**
Electric Thermal Solutions	24.7	13.3%	22.8	14.7%
Watson-Marlow	95.8	31.8%	84.8	32.0%
Corporate expenses	(15.7)		(12.8)	
Adjusted operating profit	**282.7**	**22.8%**	**264.9**	**23.0%**
Profit on disposal of businesses	-		47.4	
Profit on disposal of property	-		6.5	
Post-retirement benefit plan in the USA being frozen to future accrual	-		6.0	
Equalising guaranteed minimum pensions for the UK post-retirement benefit plans	-		(0.7)	
Amortisation of acquisition-related intangible assets	(26.8)		(25.2)	
Acquisition-related items	(2.6)		0.2	
Reversal of acquisition-related fair value adjustments to inventory	(4.1)		-	
Impairment of goodwill	(4.2)		-	
Statutory operating profit	**245.0**		**299.1**	

Revenue

The Group achieved a strong financial result in 2019 against a background of declining industrial production growth. Total sales grew 8% to £1,242.4 million (2018: £1,153.3 million) with organic sales growth of 6%. Watson-Marlow had an exceptional year, delivering 12% organic growth, with all regions performing well. Sales grew by 6% organically in the Steam Specialties business, with growth of 2% in EMEA, 7% in Asia Pacific and 11% in the Americas. Sales in the Electric Thermal Solutions business grew by 20% boosted by the acquisition of Thermocoax, on an organic basis sales were down 1%. The net effect of the acquisition of Thermocoax in May 2019 and the divestment of HygroMatik at the end of November 2018, added 1% to sales.

In aggregate, currency had no effect on sales, with losses in the Steam Specialties business being compensated for by gains in the Watson-Marlow and Electric Thermal Solutions businesses. If recent exchange rates were to prevail for the rest of 2020 we would expect to see a negative 2% impact to sales on translation when compared to 2019.

Adjusted operating profit and margin

Adjusted operating profit of £282.7 million (2018: £264.9 million) was 7% ahead at reported exchange rates and 7% ahead on an organic basis. On an organic basis the Steam Specialties business saw adjusted operating profit increase by 10% with 4% growth in EMEA, 13% growth in Asia Pacific and 18% growth in the Americas. Watson-Marlow's adjusted operating profit grew 11% on an organic basis while the Electric Thermal Solutions business fell back 19% due to Chromalox's poor performance in the first half of the year.

Currency movements depressed adjusted operating profit by less than 1% with translational losses of £4.6 million being partially offset by a transactional gain of £2.6 million. The main transactional exposure flow affecting the Group is the export of products from our factories in the UK, invoiced in sterling, less the import of goods from overseas Group factories and third parties priced predominately in euros and US dollars. The net exposure is approximately £100 million. If recent exchange rates prevail for the rest of 2020 we would expect to see a negative impact to profit of 3% due to transactional and translation foreign exchange movements.

The net effect of the acquisition made in 2019 and disposal in 2018 was to add less than 1% to adjusted operating profit on a constant currency basis.

The adjusted operating profit margin in the Steam Specialties business grew 40 bps to 23.6% despite the dilutionary impact of currency and eleven months less of the high margin HygroMatik business, which was sold in 2018. Excluding these effects, margin growth was 100 bps. Watson-Marlow's reported margin fell 20 bps to 31.8%, a fall of 60 bps at constant currency. The Electric Thermal Solutions business' margin fell by 140 bps although it was boosted by currency and the acquisition of Thermocoax in the middle of May 2019. On an organic basis it fell 270 bps as a result of the operational issues in Chromalox in the first half of the year. The margin in Chromalox in the second half of the year expanded 600 bps over the 9.1% reported in the first half, to 15.1%, which compares with 14.8% in the second half of 2018 and 14.7% in the full year. Overall the Group's reported adjusted operating profit margin fell by 20 bps to 22.8% due to the dilutionary impacts of currency and HygroMatik leaving the Group. On an organic basis, the Group margin improved by 10 bps.

Statutory operating profit and margin
Statutory operating profit decreased from £299.1 million to £245.0 million, as a result of the non-repeat of the profit on disposal of HygroMatik (£47.4 million), the disposal of property (£6.5 million) and a credit resulting from the post-retirement benefit plan in the USA being frozen to future accrual (£6.0 million), which all contributed to statutory profit in 2018. As a result, the margin fell from 25.9% to 19.7%.

Finance costs
Net finance costs fell from £10.3 million to £8.4 million. Net bank interest decreased from £8.3 million in 2018 to £4.9 million reflecting lower interest rates and reduced levels of debt, in particular that denominated in US dollars.

Net costs under IAS 19 in respect of the Group's defined benefit pension schemes increased marginally to £2.2 million (2018: £2.0 million).

In 2019, the Group adopted IFRS 16 (Leases). The IFRS 16 interest charge for the year was £1.3 million (2018: £nil million).

We anticipate total net interest charges to be at a similar level in 2020.

Associates
The Group has one Associate holding, a 26.3% interest in Econotherm, a heat pipe technology business. Econotherm's performance improved in 2019, with our share net of tax, rising to £0.2 million (2018: £nil million).

Adjusted profit before tax
The adjusted profit before tax of £274.5 million (2018: £254.6 million) was 8% ahead of the prior year. As outlined earlier, currency movements were negative in the year. At constant currency, adjusted profit before tax increased by 10%.

Statutory profit before tax
The statutory profit before tax was £236.8 million (2018: £288.8 million) and includes the items listed below that have been excluded from the adjusted profit:

- a charge of £26.8 million (2018: £25.2 million) for the amortisation of acquisition-related intangible assets;
- a charge of £4.2 million for the impairment of goodwill (2018: £nil million)
- a charge of £2.6 million for acquisition costs relating to Thermocoax (2018: £0.2 million credit); and
- reversal of acquisition-related fair value adjustments to inventory on the acquisition of Thermocoax, £4.1 million (2018: £nil million).

The principal reasons for the movement between years are explained in the "Statutory operating profit and margin" section above.

Taxation
The tax charge on the adjusted profit before tax increased by 90 bps to 28.5% (2018: 27.6%), due primarily to a reduction in the benefit the Group received from its internal financing structures in 2019. The Group's overall tax rate reflects the blended average of the tax rates in nearly 50 tax jurisdictions around the world in which the Group trades and generates profit. The Group comprises in the region of 130 operating units, the majority of which are small, reflecting our local direct sales business model. On a statutory basis the Group's effective tax rate was 29.5%.

For the year to 31st December 2020 we currently anticipate that, based on the forecast mix of adjusted profits, the Group effective tax rate will be comparable to 2019, at approximately 29%.

Earnings per share
Adjusted basic earnings per share increased by 6% to 265.7 pence (2018: 250.0 pence). Statutory earnings per share was 226.2 pence (2018: 303.1 pence). The fully diluted earnings per share was not materially different in either year.

Dividends
The Group has a progressive dividend policy where dividend payments follow underlying earnings per share growth while maintaining prudent levels of dividend cover. The aim is to provide sustainable, affordable dividend growth, building on our 52 year record of dividend progress, with a compound annual increase of 11% over that period and a 12% per annum increase over the last 10 years. The Board is proposing a final dividend of 78.0 pence per share for 2019 (2018: 71.0 pence) payable on 22nd May 2020 to shareholders on the register at 24th April 2020. Together with the interim dividend of 32.0 pence per share (2018: 29.0 pence), the total Ordinary dividend for the year is 110.0 pence per share, an increase of 10% on the Ordinary dividend of 100.0 pence per share in 2018.

The total amount paid in dividends during the year was £76.3 million, 13% above the £67.3 million paid in 2018.

Acquisitions
Acquisitions are an important complement to our strategy for organic growth.

Dedicated resource remains focused on identifying opportunities to add attractive businesses that closely match our strategic, industrial and commercial requirements. Our three broad acquisition criteria are:

- geographic expansion, typically through the acquisition of a distributor in a developing market;
- products that can be integrated into our existing businesses; and
- related acquisitions that fit alongside our existing Steam Specialties, Watson-Marlow or Electric Thermal Solutions businesses.

On 13th May 2019 we acquired Thermocoax for €156 million (£135 million) on a cash-free, debt-free basis. The acquisition was financed from existing cash and debt facilities. Thermocoax, headquartered near Paris, France, is a leading designer and manufacturer of highly engineered electrical thermal solutions for critical applications in high added-value industries and together with Chromalox forms our Electric Thermal Solutions business. For more information on Thermocoax see the "Acquisition" section of the Strategic Review.

Brexit

About 93% of the Group's sales and operating profit are made outside the UK, reducing the risk to the Group from the United Kingdom's decision to leave the European Union. That said, we are net exporters from the UK, importing approximately £45 million raw materials and components and exporting in the region of £170 million of finished goods to our sales companies around the world. In 2018, to mitigate the risk of delays at ports, we made the decision to build a month's buffer stock of raw materials and components in the UK and finished goods outside the UK equating to an additional two weeks' usage ahead of the then planned exit date of 31st March 2019. Given that the Transition Period now extends to the 31st December 2020, we currently plan to maintain this buffer stock of £5 million into 2021.

We have modelled potential tariff impacts and believe that these would be more than compensated for by a devaluation in sterling if a "no-deal" Brexit were to occur following the end of the Transition Period.

We are well prepared and well placed to take on the challenges and identify the opportunities resulting from a UK exit from the EU. We have navigated periods of economic and political uncertainty in many different places around the world and have a long and successful history of doing so.

Research and development

The development of innovative new products, getting those products to market faster and sold more effectively, is an important element of our strategy for growth. Overall the Group's total spend on research and development in 2019 was £13.4 million (2018: £12.4 million) of which £3.2 million was capitalised (2018: £1.6 million).

IFRS 16

The adoption of IFRS 16 from 1st January 2019 has resulted in the inclusion of £40.8 million of right-of-use assets in the Statement of Financial Position at 31st December 2019 together with a lease liability of £38.9 million. In the year to 31st December 2019, operating profit was increased by £1.3 million, which was matched by an increase in lease liability interest of £1.3 million, giving a zero net impact to the Income Statement. Further information can be found in Note 1.

Capital employed

Capital employed	**2019** £m	2018 £m
Property, plant and equipment	251.2	230.8
Right-of-use assets (IFRS 16)	40.8	-
Inventories	185.9	160.6
Trade receivables	240.7	245.1
Prepayments and other current assets	44.6	43.7
Trade, other payables, current provisions and current tax	(205.0)	(195.7)
Capital employed	**558.2**	**484.5**
Intangibles including goodwill	721.6	645.2
Investment in Associate	0.2	-
Post-retirement benefits	(71.3)	(85.1)
Net deferred tax	(43.1)	(35.5)
Non-current provisions and long-term payables	(5.2)	(6.4)
Lease liabilities	(38.9)	
Net debt	(295.2)	(235.8)
Net assets	**826.3**	**766.9**
Adjusted operating profit	282.7	264.9
Adjusted operating profit (excluding IFRS 16)	281.4	264.9
Average capital employed	521.4	482.2
Average capital employed (excluding IFRS 16)	501.0	482.2
Return on capital employed	**54.2%**	**54.9%**
Return on capital employed (excluding IFRS 16)	**56.2%**	**54.9%**

Total capital employed has increased by 15% at reported exchange rates. If the effects of currency, the acquisition of Thermocoax and IFRS 16 are excluded growth was 7%. This compares with organic sales growth of 7%.

Tangible fixed assets (PPE and IFRS 16 right-of-use-assets) increased by £61.2 million to £292.0 million. Changes in exchange rates reduced fixed assets by £8.3 million, £8.1 million came from the acquisition of Thermocoax and £40.8 million from the adoption of IFRS 16, giving an underlying increase of £20.6 million, or 9%.

Total working capital increased by £12.7 million. The ratio of working capital to sales reduced by 70 bps to 21.3% (2018: 22.0%). On a constant currency basis, excluding acquisitions and disposals, underlying working capital as a percentage of sales improved by 30 bps to 21.5% despite the building of £5 million of Brexit buffer stock and increasing Gestra's inventory to improve customer service levels. Going forward, we would expect a similar percentage of working capital to sales.

Return on capital employed (ROCE)

ROCE measures effective management of fixed assets and working capital relative to the profitability of the business. ROCE decreased to 54.2% (2018: 54.9%), due to the adoption of IFRS 16. At constant currency, excluding acquisitions and disposals and IFRS 16, ROCE increased by 310 bps. ROCE is defined in Note 2.

Return on invested capital (ROIC)

ROIC measures the return on invested capital, both equity and debt, relative to the adjusted operating profit after tax. ROIC fell to 18.7% (2018: 19.3%), due to the acquisition of Thermocoax and the adoption of IFRS 16. At constant currency, excluding acquisitions and disposals and IFRS 16, ROIC increased by 120 bps. ROIC is defined in Note 2 to the Financial Statements.

Post-retirement benefits

The net post-retirement benefit liability under IAS 19 fell to £71.3 million (2018: £85.1 million). Assets rose by £46.8 million (11%), reflecting greater than expected returns. Liabilities rose by £33.0m (6%), largely due to changes in market conditions, which resulted in reductions in the AA corporate bond rates used to discount future cash flows.

The main UK schemes, which constitute 88% of assets, were closed to new members in 2001 but have remained open to future service accrual. These schemes continue to be managed under a dynamic de-risking strategy whereby asset and liability values are monitored on a daily basis by the asset manager and appropriate asset allocation decisions taken as the funding level improves against pre-agreed trigger points. Following actuarial valuations of the three UK schemes, we agreed deficit reduction programmes with the Trustees and additional contributions of £4.0 million were made in 2019. Further contributions at the same rate per annum have been agreed until 2021. Actuarial valuations of the UK schemes will be undertaken in 2020.

Cash flow and treasury

Cash flow	**2019 £m**	2018 £m
Adjusted operating profit	282.7	264.9
Depreciation and amortisation (excluding IFRS 16)	34.3	32.9
Depreciation of leased assets	11.3	-
Cash payments to pension schemes more than the charge to adjusted operating profit	(5.2)	(4.6)
Equity settled share plans	6.2	5.7
Working capital changes	(21.4)	(22.5)
Repayments of principal under lease liabilities	(11.2)	-
Capital additions (including software and development)	(62.4)	(43.4)
Capital disposals	3.8	9.9
Adjusted cash from operations	**238.1**	**242.9**
Net interest	(5.4)	(6.7)
Income taxes paid	(78.4)	(61.6)
Free cash flow	**154.3**	**174.6**
Net dividends paid	(76.3)	(67.3)
Purchase of employee benefit trust shares/Proceeds from issue of shares	(12.5)	(5.0)
(Acquisitions)/Disposals of subsidiaries (including costs)	(138.5)	48.8
Cash flow for the year	**(73.0)**	**151.1**
Exchange movements	13.6	(13.3)
Opening net debt	(235.8)	(373.6)
Net debt at 31st December (excluding IFRS 16)	**(295.2)**	**(235.8)**
IFRS 16 lease liability	(38.9)	**-**
Net debt and lease liability at 31st December	(334.1)	(235.8)

Adjusted cash from operations is a measure of the cash flow generated from our companies over which the local management have control. A reconciliation between this and statutory operating cash flow can be found in Note 2 to the Financial Statements.

Adjusted cash from operations fell by £4.8 million to £238.1 million (2018: £242.9 million) representing 84% cash conversion. If we exclude the capital spend on the new Aflex facility this would rise to 90%.

Movements in working capital are discussed above.

Capital additions increased by £19.0 million. The most significant addition in the year was the £15.7 million spend on the construction of a new purpose-built factory in the UK for Aflex Hose, which will consolidate the existing four locations into a single facility, giving capacity for future growth while increasing efficiencies and providing a dedicated production line for Pharmaceutical products. It is estimated that a further £6 million will be spent in 2020 in completing the project.

Looking forward, we would expect capital expenditure in 2020 to be at a similar level of approximately £65 million as we finish the Aflex facility but increase spending on project OPAL, the implementation of a global IT system for the Steam Specialties business. We generate significant cash and our first priority is to reinvest in the business, taking opportunities to generate good returns from increased efficiency, reduced costs and flexibility.

Tax paid in the year increased by £16.8 million to £78.4 million as tax rates rose and the Group grew. Free cash flow, defined in the table above, fell to £154.3 million (2018: £174.6 million) as a result of the increase in capital expenditure and tax.

Dividend payments were £76.3 million, including payments to minorities (2018: £67.3 million) and represent the final dividend for 2018 and the interim dividend for 2019.

There was a cash outflow, including fees, of £137.6 million on the acquisition of Thermocoax, as well as an additional £0.9 million outflow relating to the acquisition of various distribution rights. The net of share purchases and new shares issued for the Group's various employee share schemes gave a cash outflow of £12.5 million (2018: £5.0 million) reflecting the move to acquire shares on the open market rather than issue new equity.

Due to the acquisition of Thermocoax, net debt increased from £235.8 million to £295.2 million at 31st December 2019, an expansion of £59.4 million. This equates to a net debt to EBITDA ratio of 0.9 times (2018: 0.8 times) excluding IFRS 16. EBITDA is defined in Note 2 and the components of net debt are disclosed in Note 8.

The Group's Income Statement and Statement of Financial Position are exposed to movements in a wide range of different currencies. This stems from our direct sales business model, with a large number of local operating units. These currency exposures and risks are managed through a rigorously applied Treasury Policy, typically using centrally managed and approved simple forward contracts to mitigate exposures to known cash flows and avoiding the use of complex derivative transactions. The largest exposures are to the euro, US dollar, Chinese renminbi and Korean won. Whilst currency effects can be significant, the structure of the Group provides some mitigation through our regional manufacturing presence, diverse spread of geographic locations and through the natural hedge of having a high proportion of our overhead costs in the local currencies of our direct sales operating units.

Capital structure

The Board keeps the capital requirements of the Group under regular review, maintaining a strong financial position to protect the business and provide flexibility of funding for growth. The Group earns a high return on capital, which is reflected in strong cash generation over time. Our capital allocation policy remains unchanged. Our first priority is to maximise investment in the business to generate further good returns in the future, aligned with our strategy for growth and targeting improvement in our key performance indicators. Next, we prioritise finding suitable acquisitions that can expand our addressable market through increasing our geographic reach, deepening our market penetration or broadening our product range. Acquisition targets need to exhibit a good strategic fit and meet strict commercial, economic and return on investment criteria. When cash resources significantly exceed expected future requirements, we would look to return capital to shareholders, as evidenced by special dividends declared in respect of 2010, 2012 and 2014. However, in the near term, we will look to reduce our financial leverage prior to considering new returns of capital to shareholders.

Spirax-Sarco Engineering plc

CONSOLIDATED STATEMENT OF FINANCIAL POSITION AT 31ST DECEMBER 2019

	Note	2019 £m	2018 £m
ASSETS			
Non-current assets			
Property, plant and equipment		251.2	230.8
Right-of-use assets	1	40.8	-
Goodwill		417.7	368.0
Other intangible assets		303.9	277.2
Prepayments		0.9	6.2
Investment in Associate		0.2	-
Deferred tax assets		40.8	41.3
		1,055.5	923.5
Current assets			
Inventories		185.9	160.6
Trade receivables		240.7	245.1
Other current assets		35.3	32.9
Taxation recoverable		8.4	4.6
Cash and cash equivalents	8	168.5	187.1
		638.8	630.3
Total assets		**1,694.3**	**1,553.8**
EQUITY AND LIABILITIES			
Current liabilities			
Trade and other payables		174.8	167.0
Provisions		3.5	5.0
Bank overdrafts	8	0.2	0.4
Short-term borrowings	8	-	15.7
Current portion of long-term borrowings	8	34.3	41.5
Short-term lease liabilities	1, 8	11.1	-
Current tax payable		26.7	23.7
		250.6	253.3
Net current assets		**388.2**	**377.0**
Non-current liabilities			
Long-term borrowings	8	429.2	365.3
Long-term lease liabilities	8	27.8	-
Deferred tax liabilities		83.9	76.8
Post-retirement benefits		71.3	85.1
Provisions		1.3	3.7
Long-term payables		3.9	2.7
		617.4	533.6
Total liabilities		**868.0**	**786.9**
Net assets	3	**826.3**	**766.9**
Equity			
Share capital		19.8	19.8
Share premium account		81.0	77.8
Other reserves		(10.6)	22.2
Retained earnings		735.1	646.0
Equity shareholders’ funds		825.3	765.8
Non-controlling interest		1.0	1.1
Total equity		**826.3**	**766.9**
Total equity and liabilities		**1,694.3**	**1,553.8**

Spirax-Sarco Engineering plc

CONSOLIDATED INCOME STATEMENT FOR THE YEAR ENDED 31ST DECEMBER 2019

	Note	Adjusted 2019 £m	Adj't* 2019 £m	Total 2019 £m	Adjusted 2018 £m	Adj't* 2018 £m	Total 2018 £m
Revenue	2, 3	**1,242.4**	**-**	**1,242.4**	**1,153.3**	**-**	**1,153.3**
Operating costs		(959.7)	(37.7)	(997.4)	(888.4)	34.2	(854.2)
Operating profit	2, 3	**282.7**	**(37.7)**	**245.0**	**264.9**	**34.2**	**299.1**
Financial expenses		(9.9)	-	(9.9)	(11.4)	-	(11.4)
Financial income		1.5	-	1.5	1.1	-	1.1
Net financing expense	3, 4	(8.4)	-	(8.4)	(10.3)	-	(10.3)
Share of profit of Associate		0.2	-	0.2	-	-	-
Profit before taxation		**274.5**	**(37.7)**	**236.8**	**254.6**	**34.2**	**288.8**
Taxation	5	(78.3)	8.5	(69.8)	(70.4)	5.0	(65.4)
Profit for the period		**196.2**	**(29.2)**	**167.0**	**184.2**	**39.2**	**223.4**
Attributable to:							
Equity shareholders	2	195.8	(29.2)	166.6	183.9	39.2	223.1
Non-controlling interest		0.4	-	0.4	0.3	-	0.3
Profit for the period		**196.2**	**(29.2)**	**167.0**	**184.2**	**39.2**	**223.4**
Earnings per share	2, 6						
Basic earnings per share		265.7p		226.2p	250.0p		303.1p
Diluted earnings per share		264.9p		225.5p	249.1p		302.0p
Dividends	7						
Dividends per share				110.0p			100.0p
Dividends paid during the year (per share)				103.0p			91.0p

*Adjusted figures exclude certain items, as set out and explained in the Financial Review and as detailed in Note 2. All amounts relate to continuing operations.

Spirax-Sarco Engineering plc

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME FOR THE YEAR ENDED 31ST DECEMBER 2019

	2019 £m	2018 £m
Profit for the year	**167.0**	**223.4**
Items that will not be reclassified to profit or loss:		
Remeasurement gain/(loss) on post-retirement benefits	9.0	(5.9)
Deferred tax on remeasurement (gain)/loss on post-retirement benefits	(1.4)	1.2
	7.6	(4.7)
Items that may be reclassified subsequently to profit or loss:		
Foreign exchange translation differences and net investment hedges	(33.5)	4.2
Non-controlling interest foreign exchange translation differences	(0.1)	-
Profit/(loss) on cash flow hedges net of tax	3.3	(0.1)
	(30.3)	4.1
Total comprehensive income for the year	**144.3**	**222.8**
Attributable to:		
Equity shareholders	144.0	222.5
Non-controlling interest	0.3	0.3
Total comprehensive income for the year	**144.3**	**222.8**

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31ST DECEMBER 2019

	Share Capital	Share Premium account	Other reserves	Retained Earnings	Equity shareholders' funds	Non-controlling interest	Total Equity
	£m	£m	£m	£m	£m	£m	£m
Balance at 1st January 2019	**19.8**	**77.8**	**22.2**	**646.0**	**765.8**	**1.1**	**766.9**
Adoption of IFRS 16				(2.4)	(2.4)	-	(2.4)
Balance at 1st January 2019 (restated)	**19.8**	**77.8**	**22.2**	**643.6**	**763.4**	**1.1**	**764.5**
Profit for the year				**166.6**	**166.6**	**0.4**	**167.0**
Other comprehensive (expense)/income:							
Foreign exchange translation differences and net investment hedges	-	-	(33.5)	-	(33.5)	(0.1)	(33.6)
Remeasurement gain on post-retirement benefits	-	-	-	9.0	9.0	-	9.0
Deferred tax on remeasurement gain on post-retirement benefits	-	-	-	(1.4)	(1.4)	-	(1.4)
Cash flow hedges	-	-	3.3	-	3.3	-	3.3
Total other comprehensive (expense)/income for the year	-	-	(30.2)	7.6	(22.6)	(0.1)	(22.7)
Total comprehensive (expense)/income for the year	-	-	(30.2)	174.2	144.0	0.3	144.3
Contributions by and distributions to owners of the Company:							
Dividends paid	-	-	-	(75.9)	(75.9)	(0.4)	(76.3)
Equity settled share plans net of tax	-	-	-	(5.4)	(5.4)	-	(5.4)
Issue of share capital	-	3.2	-	-	3.2	-	3.2
Employee Benefit Trust shares	-	-	(4.0)	-	(4.0)	-	(4.0)
Transfer between reserves	-	-	1.4	(1.4)	-	-	-
Balance at 31st December 2019	**19.8**	**81.0**	**(10.6)**	**735.1**	**825.3**	**1.0**	**826.3**

Other reserves represent the Group's translation, net investment hedge, cash flow hedge, capital redemption and Employee Benefit Trust reserves.

The non-controlling interest is a 2.5% share of Spirax-Sarco (Korea) Ltd held by employee shareholders.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31ST DECEMBER 2018

	Share Capital	Share Premium account	Other reserves	Retained Earnings	Equity shareholders' funds	Non-controlling interest	Total Equity
	£m	£m	£m	£m	£m	£m	£m
Balance at 1st January 2018	**19.8**	**75.1**	**19.3**	**494.2**	**608.4**	**1.1**	**609.5**
Adoption of IFRS 15	-	-	-	0.7	0.7	-	0.7
Balance at 1st January 2018 (restated)	**19.8**	**75.1**	**19.3**	**494.9**	**609.1**	**1.1**	**610.2**
Profit for the year				**223.1**	**223.1**	**0.3**	**223.4**
Other comprehensive (expense)/income:							
Foreign exchange translation differences and net investment hedges	-	-	4.2	-	4.2	-	4.2
Remeasurement loss on post-retirement benefits	-	-	-	(5.9)	(5.9)	-	(5.9)
Deferred tax on remeasurement loss on post-retirement benefits	-	-	-	1.2	1.2	-	1.2
Cash flow hedges	-	-	(0.1)	-	(0.1)	-	(0.1)
Total other comprehensive income/(expense) for the year	-	-	4.1	(4.7)	(0.6)	-	(0.6)
Total comprehensive income for the year	-	-	4.1	218.4	222.5	0.3	222.8
Contributions by and distributions to owners of the Company:							
Dividends paid	-	-	-	(67.0)	(67.0)	(0.3)	(67.3)
Equity settled share plans net of tax	-	-	-	(0.3)	(0.3)	-	(0.3)
Issue of share capital	-	2.7	-	-	2.7	-	2.7
Employee Benefit Trust shares	-	-	(1.2)	-	(1.2)	-	(1.2)
Balance at 31st December 2018	**19.8**	**77.8**	**22.2**	**646.0**	**765.8**	**1.1**	**766.9**

In 2018, included in Foreign exchange translation differences and net investment hedges is £0.3m for historic currency translation gains transferred to the income statement relating to the disposal of a subsidiary.

Spirax-Sarco Engineering plc

CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31ST DECEMBER 2019

	Note	2019 £m	2018 £m
Cash flows from operating activities			
Profit before taxation		236.8	288.8
Depreciation, amortisation and impairment		76.6	58.1
Loss/(profit) on disposal of fixed assets		0.4	(8.6)
Profit on disposal of subsidiary		-	(47.4)
Reversal of acquisition-related fair value adjustments to inventory		4.1	-
Cash payments to the pension schemes greater than the charge to operating profit		(5.2)	(10.1)
Equity settled share plans		6.2	5.7
Net financing expense		8.4	10.3
Operating cash flow before changes in working capital and provisions		**327.3**	**296.8**
Change in trade and other receivables		2.4	(16.0)
Change in inventories		(23.8)	(15.5)
Change in provisions		(2.4)	0.8
Change in trade and other payables		2.3	8.1
Cash generated from operations		305.8	274.2
Income taxes paid		(78.4)	(61.6)
Net cash from operating activities	2	**227.4**	**212.6**
Cash flows from investing activities			
Purchase of property, plant and equipment		(50.9)	(33.5)
Proceeds from sale of property, plant and equipment		3.4	11.9
Purchase of software and other intangibles		(8.3)	(8.3)
Development expenditure capitalised		(3.2)	(1.6)
Disposal of subsidiary		-	51.5
Acquisition of businesses net of cash acquired	9	(117.9)	(2.7)
Interest received		1.5	1.1
Net cash (used) in/from investing activities		**(175.4)**	**18.4**
Cash flows from financing activities			
Proceeds from issue of share capital		2.1	1.8
Employee Benefit Trust share purchase		(14.7)	(6.7)
Repaid borrowings	8	(80.2)	(111.6)
New borrowings	8	129.8	0.1
Interest paid		(7.0)	(7.7)
Repayment of lease liabilities	8	(11.2)	-
Dividends paid (including minorities)	7	(76.3)	(67.3)
Net cash used in financing activities		**(57.5)**	**(191.4)**
Net change in cash and cash equivalents	8	**(5.5)**	**39.6**
Net cash and cash equivalents at beginning of period		**186.7**	**151.6**
Exchange movement	8	(12.9)	(4.5)
Net cash and cash equivalents at end of period	8	**168.3**	**186.7**
Borrowings	8	(463.5)	(422.5)
Net debt at end of period	8	**(295.2)**	**(235.8)**
Lease liabilities (including IFRS 16 transition adjustment)	8	(38.9)	-
Net debt and lease liabilities at end of period	8	(334.1)	(235.8)

NOTES TO THE FINANCIAL STATEMENTS

1. BASIS OF PREPARATION

The Consolidated Financial Statements have been prepared in accordance with International Financial Reporting Standards (IFRS) adopted for use in the European Union (EU) and therefore comply with Article 4 of the EU IAS legislation and with those parts of the Companies Act 2006 that are applicable to companies reporting under IFRS. IFRS includes the standards and interpretations approved by the International Accounting Standards Board (IASB) including International Accounting Standards (IAS) and interpretations issued by the IFRS Interpretations Committee (IFRIC).

The financial information included in this News Release does not constitute statutory accounts of the Group for the years ended 31st December 2019 and 2018, but is derived from those accounts. Statutory accounts for the year ended 31st December 2018 have been reported on by the Group's auditor and delivered to the Registrar of Companies. Statutory accounts for the year ended 31st December 2019 have been audited and will be delivered to the Registrar of Companies following the Company's Annual General Meeting. The report of the auditors for both years was (i) unqualified, (ii) did not include a reference to any matters to which the auditors drew attention by way of emphasis without qualifying their report, and (iii) did not contain a statement under Section 498 (2) or (3) of the Companies Act 2006.

If approved at the Annual General Meeting on 13th May 2020, the final dividend will be paid on 22nd May 2020 to shareholders on the register at 24th April 2020. No scrip alternative to the cash dividends is being offered.

Copies of the Annual Report will be sent on 27th March 2020 to shareholders who have requested a hard copy and can be obtained from our registered office at Charlton House, Cirencester Road, Cheltenham, Gloucestershire, GL53 8ER. The Report will also be available on our website at www.spiraxsarcoengineering.com.

With the exception of IFRS 16 and IFRIC 23, adopted in the current year, as outlined below, there have been no significant changes in accounting policies from those set out in the Spirax-Sarco Engineering plc 2018 Annual Report. The accounting policies have been applied consistently throughout the years ended 31st December 2018 and 31st December 2019.

NEW STANDARDS AND INTERPRETATIONS ADOPTED IN THE CURRENT YEAR

IFRS 16 (Leases)

The Group adopted IFRS 16 (Leases) using the cumulative catch-up approach on 1st January 2019. IFRS 16 introduces new requirements for lessee and lessor accounting, with the distinction between operating lease and finance lease no longer applying for lessees. Under IFRS 16, a lessee is required to recognise assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of a low value when new. The new standard also requires depreciation of the asset to be recognised separately from the interest expense on the lease liability.

As a result of adopting IFRS 16, the difference between the asset and liability recognised on 1st January 2019 has been shown as an adjustment to opening retained earnings within the Consolidated Statement of Changes in Equity. Comparative information has not been restated and is therefore presented under IAS 17.

The exemptions taken by the Group on transition are detailed below. The weighted average incremental borrowing rate applied to the lease liabilities at 1st January 2019 was 3.2%.

The Group has elected to use the following transition practical expedients:

(a) The definition of a lease in accordance with IAS 17 and IFRIC 4 will continue to be applied to leases entered or changed before 1st January 2019, and as a result we have not reassessed whether a contract is or contains a lease on transition.
(b) Leases with a determined lease term of less than 12 months remaining from 1st January 2019 have been treated as short term.
(c) Initial direct costs have been excluded from the measurement of the right-of-use asset for all leases entered into or changed before 1st January 2019.

Furthermore, the Group has also elected to make use of the following exemptions provided by IFRS 16:

(a) Leases with a determined lease term of 12 months or less from the commencement of the lease will be treated as short term and therefore not included in the right-of-use asset or lease liability. Instead, lease costs will be recognised on a straight line basis across the life of the lease.
(b) Leases for which the underlying asset is of low value when new will be exempt from the requirements to value a right-of-use asset and lease liability. Instead, lease costs will be recognised on a straight line basis across the life of the lease. To apply this exemption, a threshold of £5,000 has been utilised to define "low value".
(c) Lease and non-lease components will not be separated; therefore, each lease component and any associated non-lease component will be accounted for as a single component.
(d) Where applicable, IFRS 16 will be applied to a portfolio of leases with similar characteristics.

The impact on the Financial Statements on transitioning is as follows:

Statement of Financial Position

(a) Right-of-use assets were capitalised, totalling £41.2m. The majority of this value (£27.2m) results from leased property where the Group leases a number of office and warehouse sites in a number of geographical locations. £5.1m relates to the reclassification of long-term prepayments held at 31st December 2019 to Right-of-use assets at 1st January 2019. The remaining £8.9m is largely made up of leased motor vehicles, where the Group makes use of leasing cars for sales and service engineers at a number of operating company locations.
(b) Lease liabilities were recognised totalling £39.0m, split between £9.6m relating to amounts due within 12 months from 1st January 2019 and £29.4m relating to amounts due after 1st January 2020.
(c) Deferred tax assets were recognised at the date of transition of £0.5m.
(d) As a result of the Group using the cumulative catch-up approach, all property lease assets were valued as if IFRS 16 had always applied since the commencement of those leases with the cumulative effect being an adjustment to opening retained earnings. This led to a difference between the right-of-use assets capitalised (excluding the £5.1m reclassification of long-term prepayments held at 31st December 2018), deferred tax assets recognised and the corresponding lease liability. The difference between these values of £2.4m has been recognised as an adjustment to opening retained earnings.

Income Statement

(a) The impact on the Income Statement for the year-ended 31st December 2019 is an increase in operating profit of £1.3m compared to the operating profit had IAS 17 continued to apply. This is made up of a reduction in operating lease rentals of £12.6m offset by a depreciation charge of £11.3m. Once the additional £1.3m of lease liability interest is taken into account, the overall impact on profit before tax in the year ended 31st December 2019 is £nil.
(b) The total expense relating to exempt leases (being short-term, low value or variable lease payments not included in the lease liability) was £2.5m.

Statement of Cash Flows

(a) Net cash inflow from operating activities for the year ended 31st December 2019 increased by £12.5m as a result of the payments made on lease liabilities being reclassified from cash generated from operations to financing activities.
(b) Net cash outflow from financing activities increased by £12.5m as a result of the above.
(c) There is no impact on the net change in cash and cash equivalents as a result of IFRS 16.

IFRIC 23 (Uncertainty Over Income Tax Treatments)

The Group adopted the guidance set out in IFRIC 23 (Uncertainty Over Income Tax Treatments). International Accounting Standard (IAS) 12 specifies how to account for current and deferred tax, but not how to reflect the effects of uncertainty.

The guidance issued by the IFRIC in IFRIC 23 provides requirements that add to the requirements in IAS 12 by specifying how to reflect the effects of uncertainty in accounting for income taxes. The guidance issued by IFRIC provides clarification on when to recognise a liability arising from an uncertainty, how to measure the uncertainty, the unit of account to be used, the risk of detection of uncertainty and how to consider changes in facts and circumstances that impact on the measurement. The impact from adoption of the guidance in IFRIC 23 is no change in the provision at 1st January 2019.

In addition to IFRS 16 and IFRIC 23 during the current year, the Group has applied a number of amendments to IFRS Standards and Interpretations issued by the IASB that are effective for annual periods that begin on or after 1st January 2019. Their adoption has not had a material impact on the disclosures or on the amounts reported in these Financial Statements. These amendments are listed below.

- Amendments to IFRS 9 (Financial Instruments): Prepayment Features with Negative Compensation.
- Amendments to IAS 28 (Investments in Associates and Joint Ventures): Long-term Interests in Associates and Joint Ventures.
- Annual Improvements to IFRS Standards 2015–2017 Cycle Amendments to IFRS 3 Business Combinations, IFRS 11 Joint Arrangements, IAS 12 Income Taxes and IAS 23 Borrowing Costs.
- Amendments to IAS 19 (Employee Benefits): Plan Amendment, Curtailment or Settlement.

NEW STANDARDS AND INTERPRETATIONS NOT YET ADOPTED

There are a number of new standards, amendments to standards and interpretations that are not yet effective for the year ended 31st December 2019 and have, therefore, not been applied in preparing these Consolidated Financial Statements.

At the date of authorisation of these Financial Statements, the Group has not applied the following new and revised IFRS Standards that have been issued but are not yet effective:

- IFRS 17 (Insurance Contracts);
- IFRS 10 and IAS 28 (amendments): Sale or Contribution of Assets between an Investor and its Associate or Joint Venture;
- Amendments to IFRS 3 (Business Combinations): Definition of a business;
- Amendments to IAS 1 (Presentation of Financial Statements) and IAS 8 (Accounting Policies, Changes in Accounting Estimates and Errors): Definition of material; and
- Conceptual Framework: Amendments to References to the Conceptual Framework in IFRS Standards.

The Directors do not expect that the adoption of the Standards listed above will have a material impact on the Financial Statements of the Group in future periods.

As reported in the Review of Operations, the economy in Argentina underwent a period of high inflation during 2019. Whilst applying IAS 29 (Financial Reporting in Hyperinflationary Economies) to the Financial Statements is not required for the period ended 31st December 2019 as the impact is not material, we will continue to assess the position going forward and consider its applicability in the light of economic developments in Argentina and the materiality of their results to the Group.

GOING CONCERN

Having made appropriate enquiries, the Directors consider that the Group has adequate resources to continue in operational existence for 12 months from the date of this release and that therefore it is appropriate to adopt the going concern basis in preparing the Annual Report.

PRINCIPAL RISKS

The Group has processes in place to identify, evaluate and mitigate the principal risks that could have an impact on the Group's performance. The principal risks together with a description of why they are relevant and if the significance of the risk has changed during 2019 are set out below. Details of how they link with the Group's strategy and how mitigation is managed will be disclosed in the 2019 Annual Report on pages 20-25.

- ***Economic and political instability***

The Group operates worldwide and maintains operations in territories that have historically experienced economic or political instability. This type of instability, which includes the uncertainties of regime change, creates risks for our locally based direct operations and broader risks to credit, liquidity and currency.

This risk has increased due to various factors including the trade tensions between North America and China in 2019, the deterioration in the Argentine economy and the continued tensions in the Middle East.

- ***Significant exchange rate movements***

The Group reports its results and pays dividends in sterling. Operating and manufacturing companies trade in local currency. With sales companies and manufacturing spread across the globe, the nature of the Group's business necessarily results in exposure to exchange rate volatility.

- ***Cybersecurity***

Cybersecurity risks include risks from malware, accident, statutory and legislative requirements, malicious actions and other unauthorised access by third parties.

- ***Failure to realise acquisition objectives***

Whilst the Group mitigates this risk in various ways, including through comprehensive due diligence, professional advisers and contractual protections, amongst others, there are some variables that are uncontrollable or difficult to control, such as economic conditions, culture clashes and employee movement. Therefore, these could impact acquisition objectives.

- ***Loss of manufacturing output at any Group factory***

The risk includes loss of output as a result of natural disasters, industrial action, accidents or any other cause. Loss of manufacturing output at any important plant risks serious disruption to sales operations.

- ***Breach of legal and regulatory requirements (including ABC laws)***

We operate globally and must ensure compliance with laws and regulations wherever we do business. As we grow into new markets and territories, we must continually review and update our operations and procedures, and ensure our employees are fully informed and educated in all applicable legal requirements. This is particularly important with respect to anti-bribery and corruption (ABC) legislation. Breaching any of these laws or regulations could have serious consequences for the Group.

- ***Inability to identify and respond to changes in customer needs***

This risk could lead to a loss of business as a result of a failure to respond rapidly to changes in the needs of customers or technology shifts.

New principal risk given the importance of changing customer requirements.

- ***Solution specification failure***

This risk relates to loss of output at a customer plant due to faulty product potentially leading to customer product contamination and/or loss of manufacturing output and thereby contractual liability and loss of sales.

Now a principal risk due to reassessment of the risk across all businesses.

Loss of critical supplier and Health, safety and environmental risks are no longer considered a principal risk but will continue to be monitored.

The possibility of a “no deal” Brexit has created economic uncertainties for the business. The Group’s Risk Management Committee has taken action to mitigate these uncertainties as outlined in the Risk Management section of the 2019 Annual Report on page 21. The Group has prepared for the risks of delays at ports and the application of tariffs for goods moving in and out of Europe, as disclosed, above, in the Financial Review on page 56 in the 2019 Annual Report. However, we are also poised to take advantage of opportunities that are presented and to mitigate any adverse trading impact on the Group.

The Group has considered the effects of COVID-19 and currently do not consider it a principal risk, but will continue to carefully monitor the situation as it develops.

The 2019 Financial Statements were approved by the Board of Directors and authorised for issue on 10th March 2020.

2. ALTERNATIVE PERFORMANCE MEASURES

The Group reports under IFRS and also uses alternative performance measures where the Board believe that they help to effectively monitor the performance of the Group, users of the Financial Statements might find them informative and an aid to comparison with our peers. Certain alternative performance measures also form a meaningful element of Executive Directors' variable remuneration. Net debt to EBITDA is also a covenant assessed for external borrowing purposes. A definition of the alternative performance measures included in the Annual Report and a reconciliation to the closest IFRS equivalent are disclosed below.

Adjusted operating profit

Adjusted operating profit excludes items that are considered to be significant in nature and/or quantum and where treatment as an adjusted item provides stakeholders with additional useful information to assess the period-on-period trading performance of the Group and an aid to comparison with our peers. The Group excludes such items which management have defined as:

- amortisation and impairment of acquisition-related intangible assets;
- impairment of goodwill;
- costs associated with acquisitions and disposals;
- reversal of acquisition-related fair value adjustments to inventory;
- changes in deferred consideration payable on acquisitions;
- profit or loss on disposal of subsidiary;
- restructuring costs;
- certain foreign exchange gains and losses on borrowings;
- significant profits or losses on disposal of property; and
- significant plan amendments and/or legal rulings requiring a past service cost or credit for post-retirement benefit plans.

A reconciliation between operating profit as reported under IFRS and adjusted operating profit is given below.

	2019 £m	2018 £m
Operating profit as reported under IFRS	**245.0**	**299.1**
Amortisation of acquisition-related intangible assets	26.8	25.2
Impairment of goodwill	4.2	-
Acquisition-related items	2.6	(0.2)
Reversal of acquisition-related fair value adjustments to inventory	4.1	-
Profit on disposal of subsidiary	-	(47.4)
Profit on disposal of property	-	(6.5)
Equalising guaranteed minimum pensions for the UK post-retirement benefit plans	-	0.7
Post-retirement benefit plan in the USA being frozen to future accrual	-	(6.0)
Adjusted operating profit	**282.7**	**264.9**

The related tax effects of the above are included as adjustments in taxation as disclosed in Note 5.

Adjusted earnings per share

	2019	2018
Profit for the period attributable to equity holders as reported under IFRS (£m)	**166.6**	**223.1**
Items excluded from adjusted operating profit disclosed above (£m)	37.7	(34.2)
Tax effects on adjusted items (£m)	(8.5)	(5.0)
Adjusted profit for the period attributable to equity holders (£m)	**195.8**	**183.9**
Weighted average shares (million)	73.7	73.6
Basic adjusted earnings per share	265.7p	250.0p
Diluted weighted average shares (million)	73.9	73.8
Diluted adjusted earnings per share	264.9p	249.1p

Basic adjusted earnings per share is defined as adjusted profit for the period attributable to equity holders divided by the weighted average number of shares in issue. Diluted adjusted earnings per share is defined as adjusted profit for the period attributable to equity holders divided by the diluted weighted average number of shares.

Basic and diluted EPS calculated on an IFRS profit basis are included in Note 6.

Adjusted cash flow

A reconciliation showing the items that bridge between net cash from operating activities as reported under IFRS to an adjusted basis is given below. Adjusted cash from operations is used by the Board to monitor the performance of the Group, with a focus on elements of cashflow, such as Net capital expenditure, which are subject to day to day control by the business.

	2019 £m	2018 £m
Net cash from operating activities as reported under IFRS	**227.4**	**212.6**
Acquisition and disposal costs	2.5	0.2
Net capital expenditure excluding acquired intangibles from acquisitions	(59.0)	(31.5)
Tax paid	78.4	61.6
Repayments of principal under lease liabilities	(11.2)	-
Adjusted cash from operations	**238.1**	**242.9**

Adjusted cash conversion in 2019 is 84% (2018: 91%). Cash conversion is calculated as adjusted cash from operations divided by adjusted operating profit. The adjusted cash flow is included in the Financial Review.

Cash generation

Cash generation is one of the Group's key performance indicators used by the Board to monitor the performance of the Group and measure the successful implementation of our strategy. It is one of three financial measures on which Executive Directors' variable remuneration is based.

	2019 £m	2018 £m
Adjusted operating profit	**282.7**	**264.9**
Depreciation and amortisation (excluding IFRS 16 depreciation)	34.3	32.9
Cash payments to pension schemes in excess of charge to P&L	(5.2)	(4.6)
Equity settled share plans	6.2	5.7
Working capital changes	(21.4)	(22.5)
Cash generation	**296.6**	**276.4**

A reconciliation showing the items that bridge between net cash from operating activities as reported under IFRS to cash generation is shown below.

	2019 £m	2018 £m
Net cash from operating activities as reported under IFRS	**227.4**	**212.6**
Acquisition and disposal costs	2.5	0.2
Tax paid	78.4	61.6
Depreciation of right-of-use assets (IFRS 16)	(11.3)	-
(Loss)/Profit on disposal of fixed assets	(0.4)	2.0
Cash generation	**296.6**	**276.4**

Return on invested capital (ROIC)

ROIC measures the after tax return on the total capital invested in the business. It is calculated as adjusted operating profit after tax divided by average invested capital.

An analysis of the components is as follows:

	2019 £m	2018 £m
Total equity	826.3	766.9
Net debt	334.1	235.8
Total invested capital	**1,160.4**	**1,002.7**
Average invested capital	**1,081.6**	**992.9**
Average invested capital (excluding IFRS 16)	**1,061.2**	**992.9**
Operating profit as reported under IFRS	245.0	299.1
Adjustments (see adjusted operating profit)	37.7	(34.2)
Adjusted operating profit	**282.7**	**264.9**
Taxation	(80.6)	(73.1)
Adjusted operating profit after tax	**202.1**	**191.8**
Adjusted operating profit after tax (excluding IFRS 16)	**201.2**	**191.8**
Return in invested capital	**18.7%**	**19.3%**
Return in invested capital (excluding IFRS 16)	**19.0%**	**19.3%**

Return on capital employed (ROCE)

ROCE measures effective management of fixed assets and working capital relative to the profitability of the business. It is calculated as adjusted operating profit divided by average capital employed. More information on ROCE can be found in the Capital Employed and ROCE sections of the Financial Review.

An analysis of the components is as follows:

	2019 £m	2018 £m
Property, plant and equipment	251.2	230.8
Right-of-use assets (IFRS 16)	40.8	-
Prepayments	0.9	6.2
Inventories	185.9	160.6
Trade receivables	240.7	245.1
Other current assets	35.3	32.9
Tax recoverable	8.4	4.6
Trade, other payables and current provisions	(178.3)	(172.0)
Current tax payable	(26.7)	(23.7)
Capital employed	**558.2**	**484.5**
Average capital employed	**521.4**	**482.2**
Average capital employed (excluding IFRS 16)	**501.0**	**482.2**
Operating profit	245.0	299.1
Adjustments (see adjusted operating profit)	37.7	(34.2)
Adjusted operating profit	**282.7**	**264.9**
Adjusted operating profit (excluding IFRS 16)	**281.4**	**264.9**
Return on capital employed	**54.2%**	**54.9%**
Return on capital employed (excluding IFRS 16)	**56.2%**	**54.9%**

A reconciliation of capital employed to net assets as reported under IFRS and disclosed on the Consolidated Statement of Financial Position is given below.

	2019 £m	2018 £m
Capital employed	**558.2**	**484.5**
Goodwill and other intangible assets	721.6	645.2
Investment in Associate	0.2	-
Post-retirement benefits	(71.3)	(85.1)
Net deferred tax	(43.1)	(35.5)
Non-current provisions and long-term payables	(5.2)	(6.4)
Lease liabilities	(38.9)	-
Net debt	(295.2)	(235.8)
Net assets as reported under IFRS	**826.3**	**766.9**

Net debt including IFRS 16 lease liabilities

A reconciliation between net debt and net debt including IFRS 16 is given below. A breakdown of the balances that are included within net debt is given within Note 8. Net debt excludes IFRS 16 lease liabilities to enable comparability with prior years.

	2019 £m	2018 £m
Net debt	**295.2**	**235.8**
IFRS 16 lease liabilities	38.9	-
Net debt and IFRS 16 lease liabilities	**334.1**	**235.8**

Net debt to earnings before interest, tax, depreciation and amortisation (EBITDA)

To assess the size of the net debt balance relative to the size of the earnings for the Group we analyse net debt as a proportion of earnings before interest, tax, depreciation and amortisation (EBITDA). EBITDA is calculated by adding back depreciation and amortisation of property, plant and equipment, software and development costs to adjusted operating profit. Net debt excludes the IFRS 16 lease liabilities. The net debt to EBITDA ratio is calculated as follows:

	2019 £m	2018 £m
Adjusted operating profit	**282.7**	**264.9**
Depreciation and amortisation of property, plant and equipment, software and development	34.3	32.9
EBITDA	**317.0**	**297.8**
Net debt	295.2	235.8
Net debt to EBITDA	**0.9**	**0.8**

The components of net debt are disclosed in Note 8.

Organic measures

As we are a multi-national Group of companies, who trade in a large number of foreign currencies and regularly acquire and sometimes dispose of companies, we also refer to organic performance measures throughout the News Release. These strip out the effects of the movement of foreign currency exchange rates and of acquisitions and disposals. The Board believe that this allows users of the accounts to gain a further understanding of how the Group has performed.

Exchange translation movements are assessed by re-translating prior period reported values to current period exchange rates. Exchange transaction impacts on operating profit are assessed on the basis of transactions being at constant currency between years.

Any acquisitions and disposals that occurred in either the current period or prior period are excluded from the results of both the prior and current period at current period exchange rates.

The organic percentage movement is calculated as the organic movement divided by the sum of the prior period and exchange.

The organic bps change in adjusted operating margin is the difference between the current period margin excluding acquisitions and disposals and the prior period margin at current period exchange rates excluding acquisitions and disposals.

A reconciliation of the movement in revenue and adjusted operating profit compared to the prior period is given below.

	2018	Exchange	Organic	Acquisitions and disposal	2019	Organic	Reported
	£m	£m	£m	£m	£m		
Revenue	1,153.3		73.9	15.2	1,242.4	+6%	+8%
Adjusted operating profit	264.9	(2.0)	18.2	1.6	282.7	+7%	+7%
Adjusted operating margin	23.0%				22.8%	+10 bps	-20 bps

The reconciliation for each segment is included in the Review of Operations.

3. SEGMENTAL REPORTING

As required by IFRS 8 (Operating Segments), the following segmental information is presented in a consistent format with management information considered by the Board.

Following recent material acquisitions into the Group, the composition of the Group's Reportable Segments changed in the financial year ended 31st December 2019 to align with both how the business is now managed alongside how information is now presented to the Board and the Executive Committee. This change results in Steam Specialties being reported as one single consolidated operating segment. In previous years Steam Specialties was an aggregation of three separate operating segments, EMEA, Americas and Asia Pacific, however recent changes to the management structure resulted in the creation of a separate Steam Specialties management team reporting to the Chief Executive and Chief Financial Officer on the consolidated Steam Specialties results. Comparative results have not been restated, as the Steam Specialties total was previously disclosed as a subtotal to the three previous geographic operating segments.

Following the acquisition of Thermocoax in May 2019, the Chromalox operating segment was renamed to Electric Thermal Solutions which now includes the combination of both businesses in 2019. No other changes to the structure of operating segments have been made.

Analysis by operating segment

2019

	Revenue	Total operating profit	Adjusted operating profit	Adjusted operating margin
	£m	£m	£m	%
Steam Specialties	755.4	172.6	177.9	23.6%
Electric Thermal Solutions	186.1	7.9	24.7	13.3%
Watson-Marlow	300.9	82.7	95.8	31.8%
Corporate expenses		(18.2)	(15.7)	
Total	**1,242.4**	**245.0**	**282.7**	22.8%
Net finance expense		(8.4)	(8.4)	
Share of profit of Associate		0.2	0.2	
Profit before tax		**236.8**	**274.5**	

2018

	Revenue £m	Total operating profit £m	Adjusted operating profit £m	Adjusted operating margin %
Steam Specialties	733.5	222.5	170.1	23.2%
Electric Thermal Solutions	154.6	12.1	22.8	14.7%
Watson-Marlow	265.2	77.5	84.8	32.0%
Corporate expenses		(13.0)	(12.8)	
Total	**1,153.3**	**299.1**	**264.9**	23.0%
Net finance expense		(10.3)	(10.3)	
Share of profit of Associate		-	-	
Profit before tax		**288.8**	**254.6**	

The following table details the split of revenue by geography for the combined Group:

	2019 £m	2018 £m
Europe, Middle East and Africa	518.7	487.3
Asia Pacific	296.0	269.8
Americas	427.7	396.2
Total revenue	**1,242.4**	**1,153.3**

Net revenue generated by Group companies based in the USA is £319.4m (2018: £288.8m), in China is £134.6m (2018: £118.5m) in the UK is £103.5m (2018: £103.7m), in Germany is £105.3m (2018: £118.0m) and the rest of the world is £579.6m (2018: £524.3m).

The total operating profit for each period includes certain items as analysed below:

2019

	Amortisation of acquisition-related intangible assets £m	Acquisition-related items £m	Impairment of Goodwill £m	Reversal of acquisition-related fair value adjustments to inventory £m	Total £m
Steam Specialties	(5.3)	-	-	-	(5.3)
Electric Thermal Solutions	(12.7)	-	-	(4.1)	(16.8)
Watson-Marlow	(8.8)	(0.1)	(4.2)	-	(13.1)
Corporate expenses	-	(2.5)	-	-	(2.5)
Total	**(26.8)**	**(2.6)**	**(4.2)**	**(4.1)**	**(37.7)**

2018

	Amortisation of acquisition-related intangible assets	Profit on disposal of subsidiary and property	Acquisition-related items	Equalising GMP for the UK pension plans	USA pension plan frozen to future accrual	Total
	£m	£m	£m	£m	£m	£m
Steam Specialties	(6.7)	53.9	(0.1)	(0.7)	6.0	52.4
Electric Thermal Solutions	(10.7)	-	-	-	-	(10.7)
Watson-Marlow	(7.8)	-	0.5	-	-	(7.3)
Corporate expenses	-	-	(0.2)	-	-	(0.2)
Total	**(25.2)**	**53.9**	**0.2**	**(0.7)**	**6.0**	**34.2**

Net financing income and expense

	2019			2018		
	Income	Expense	Net	Income	Expense	Net
	£m	£m	£m	£m	£m	£m
Steam Specialties	1.1	(3.3)	(2.2)	0.9	(2.8)	(1.9)
Electric Thermal Solutions	0.1	(0.3)	(0.2)	0.1	(0.1)	-
Watson-Marlow	0.1	(0.5)	(0.4)	0.1	(0.2)	(0.1)
Corporate expenses	0.2	(5.8)	(5.6)	-	(8.3)	(8.3)
Total net financing expense	**1.5**	**(9.9)**	**(8.4)**	**1.1**	**(11.4)**	**(10.3)**

Net assets

	2019		2018	
	Assets	Liabilities	Assets	Liabilities
	£m	£m	£m	£m
Steam Specialties	669.4	(176.3)	683.6	(195.9)
Electric Thermal Solutions	552.0	(36.3)	409.3	(28.9)
Watson-Marlow	255.2	(42.2)	227.9	(38.7)
	1,476.6	(254.8)	1,320.8	(263.5)
Liabilities	(254.8)		(263.5)	
Net deferred tax	(43.1)		(35.5)	
Net current tax payable	(18.3)		(19.1)	
Net debt	(334.1)		(235.8)	
Net assets	**826.3**		**766.9**	

Non-current assets in the UK were £187.1m (2018: £157.1m), in the USA were £375.8m (2018: £393.5m), in Germany were £165.0m (2018: £169.4m) and in France were £146.5m (2018: £15.1m).

Capital additions, depreciation, amortisation and impairment

	2019		2018	
	Capital additions	Depreciation, amortisation and impairment	Capital additions	Depreciation, amortisation and impairment
	£m	£m	£m	£m
Steam Specialties	57.7	35.8	27.9	30.1
Electric Thermal Solutions	81.6	18.4	6.0	13.6
Watson-Marlow	40.6	22.4	18.6	14.4
Group total	**179.9**	**76.6**	**52.5**	**58.1**

Capital additions include property, plant and equipment of £59.0m (2018: £33.5m), of which £8.1m (2018: £0.2m) was from acquisitions in the period and other intangible assets of £72.0m (2018: £19.0m) of which £60.2m (2018: £9.1m) relates to acquired intangibles from acquisitions in the period. Right-of-use asset additions of £48.9m occurred during the 12 month period to 31st December 2019, of which £36.1m relates to additions on 1st January 2019 as a result of transition to IFRS 16, £11.7m relates to new leases entered into in 2019 and £1.1m from acquisitions. Capital additions split between the UK and rest of the world are UK £36.8m (2018: £20.1m) and rest of the world £143.1m (2018: £32.4m).

4. NET FINANCING INCOME AND EXPENSE

	2019 £m	2018 £m
Financial expenses:		
Bank and other borrowing interest payable	(6.4)	(9.4)
Interest expense on lease liabilities	(1.3)	-
Net interest on pension scheme liabilities	(2.2)	(2.0)
	(9.9)	(11.4)
Financial income:		
Bank interest receivable	1.5	1.1
Net financing expense	**(8.4)**	**(10.3)**
Net pension scheme financial expense	(2.2)	(2.0)
Interest expense on lease liabilities	(1.3)	-
Net bank interest	(4.9)	(8.3)
Net financing expense	**(8.4)**	**(10.3)**

5. TAXATION

		2019			2018	
	Adjusted	Adj't	Total	Adjusted	Adj't	Total
Analysis of charge in period	£m	£m	£m	£m	£m	£m
UK corporation tax:						
Current tax on income for the period	14.1	-	14.1	7.6	-	7.6
Adjustments in respect of prior periods	(1.1)	-	(1.1)	0.4	-	0.4
	13.0	-	13.0	8.0	-	8.0
Foreign tax:						
Current tax on income for the period	56.9	-	56.9	58.5	0.3	58.8
Adjustments in respect of prior periods	(0.1)	-	(0.1)	0.9	-	0.9
	56.8	-	56.8	59.4	0.3	59.7
Total current tax charge	69.8	-	69.8	67.4	0.3	67.7
Deferred tax – UK	(0.1)	-	(0.1)	0.1	-	0.1
Deferred tax – Foreign	8.6	(8.5)	0.1	2.9	(5.3)	(2.4)
Tax on profit on ordinary activities	**78.3**	**(8.5)**	**69.8**	**70.4**	**(5.0)**	**65.4**

The Group's tax charge in future years is likely to be affected by the proportion of profits arising and the effective tax rates in the various territories in which the Group operates.

The Group's tax charge includes a credit of £8.5m in relation to certain items excluded from adjusted operating profit as disclosed in Note 2. The tax impacts of these items are:

- amortisation of acquisition-related intangible assets (£6.7m tax credit);
- reversal of acquisition-related fair value adjustments to inventory (£1.3m tax credit); and
- acquisition-related items (£0.5m tax credit).

6. EARNINGS PER SHARE

	2019	2018
Profit attributable to equity shareholders (£m)	166.6	223.1
Weighted average shares (million)	73.7	73.6
Dilution (million)	0.2	0.2
Diluted weighted average shares (million)	73.9	73.8
Basic earnings per share	**226.2p**	**303.1p**
Diluted earnings per share	**225.5p**	**302.0p**

Basic and diluted earnings per share calculated on an adjusted profit basis are included in Note 2. The dilution is in respect of unexercised share options and the Performance Share Plan.

7. DIVIDENDS

	2019 £m	2018 £m
Amounts paid in the year:		
Final dividend for the year ended 31st December 2018 of 71.0p (2017: 62.0p) per share	52.3	45.7
Interim dividend for the year ended 31st December 2019 of 32.0p (2018: 29.0p) per share	23.6	21.3
Total dividends paid	**75.9**	**67.0**
Amounts arising in respect of the year:		
Interim dividend for the year ended 31st December 2019 of 32.0p (2018: 29.0p) per share	23.6	21.3
Proposed final dividend for the year ended 31st December 2019 of 78.0p (2018: 71.0p) per share	57.5	52.3
Total dividends arising	**81.1**	**73.6**

8. ANALYSIS OF CHANGES IN NET DEBT, INCLUDING CHANGES IN LIABILITIES ARISING FROM FINANCING ACTIVITIES

	At 1st Jan 2019 £m	Cash flow £m	Acquired debt £m	Exchange movement £m	Reclassification £m	At 31st Dec 2019 £m
Current portion of long-term borrowings	(41.5)					(34.3)
Non-current portion of long-term borrowings	(365.3)					(429.2)
Short-term borrowings	(15.7)					-
Total borrowings	**(422.5)**					**(463.5)**
Comprising:						
Borrowings	(422.2)	(49.6)	(18.2)	26.5	-	(463.5)
Finance leases	(0.3)	-	-	-	0.3	-
Changes in liabilities arising from financing	(422.5)	(49.6)	(18.2)	26.5	0.3	(463.5)
Cash at bank	187.1	(5.7)	-	(12.9)	-	168.5
Bank overdrafts	(0.4)	0.2	-	-	-	(0.2)
Net cash and cash equivalents	**186.7**	**(5.5)**	**-**	**(12.9)**	**-**	**168.3**
Net debt	**(235.8)**	**(55.1)**	**(18.2)**	**13.6**	**0.3**	**(295.2)**
Lease liabilities (including IFRS 16 transition adjustment)	(39.0)	11.2	(12.6)	1.8	(0.3)	(38.9)
Net debt and lease liabilities	(274.8)	(43.9)	(30.8)	15.4	-	(334.1)

The cash flow for borrowings net total of £49.6m consists of £129.8m of new borrowings and £80.2m of repaid borrowings. This includes repayments of US$51.6m (£39.0m) on the US$200.0m term loan, €96.2m (£81.5m) of new drawings against revolving credit facilities, €50m (£48.3m) of new drawings on a euro term loan, CNY119.7m (£13.0m) of repayments on an overdraft facility and €8.3m (£7.0m) of repayments on a euro term loan.

At 31st December 2019 total lease liabilities consist of £11.1m short-term and £27.8m long-term.

9. PURCHASE OF BUSINESSES

The provisional fair value accounting for the acquisition of Thermocoax Developpement is shown below:

	Fair value £m
Non-current assets:	
Property, plant and equipment	8.1
Right-of-use assets	1.1
Acquired intangibles	59.3
Software and other intangibles	0.3
Deferred tax assets	0.5
	69.3
Current assets:	
Inventories	15.6
Trade receivables	8.5
Other current assets	3.6
Cash and cash equivalents	4.6
	32.3
Total assets	**101.6**
Current liabilities:	
Trade payables	4.2
Other payables and accruals	6.5
Provisions	0.2
Short-term borrowings	18.2
Short-term lease liabilities	0.3
Current tax payable	2.0
	31.4
Non-current liabilities:	
Long-term lease liabilities	0.8
Deferred tax liabilities	17.2
Long-term payables	0.5
Post-retirement benefit plans	0.3
	18.8
Total liabilities	**50.2**
Total net assets	51.4
Goodwill	70.0
Total	**121.4**

Satisfied by	
Cash paid	121.4
Total consideration	**121.4**

Reconciliation to acquisition of businesses net of cash acquired in the Consolidated Statement of Cash Flows	
Cash paid for the Thermocoax business and debt repaid on the acquisition date	139.6
Debt repaid on acquisition date	(18.2)
Cash paid for the Thermocoax business	121.4
Less cash acquired in the Thermocoax business	(4.6)
Cash paid for acquired intangibles from distributors	1.1
Acquisition of businesses net of cash acquired	**117.9**

1. On a debt-free, cash-free basis the cash outflow for acquisitions was £135.0m consisting of £121.4m paid to the sellers, £18.2m of debt repaid on the acquisition date less cash acquired of £4.6m.

2. The acquisition of 100% of the equity in Thermocoax Developpement and all of its group companies (Thermocoax) was completed on the 13th May 2019. The acquisition method of accounting has been used. Consideration of £121.4m was paid on completion.

   Separately identified intangibles are recorded as part of the provisional fair value adjustment. The acquired intangibles relate to customer relationships, brand names, trademarks, manufacturing designs and core technology. The goodwill recognised represents the skilled workforce acquired and the opportunity to achieve synergies from being part of a larger Group. Goodwill arising is not expected to be tax deductible.

   Due to their contractual dates, the fair value of receivables acquired approximate to the gross contractual amounts receivable. The amount of gross contractual receivables not expected to be recovered is immaterial.

   The acquisition has generated £27.9m of revenue and £5.4m of adjusted pre-tax profit since acquisition. Had the acquisition been made on 1st January 2019, the Thermocoax revenue and adjusted pre-tax profit would have been approximately £42m and £8m respectively.

   Thermocoax is headquartered near Paris, France and has four manufacturing facilities in Normandy, France, one in Georgia, USA and a further facility in Heidelberg, Germany. Thermocoax is a leading designer and manufacturer of highly engineered electrical thermal solutions for critical applications in high added value industries. Thermocoax will enhance and add significantly to Spirax-Sarco Engineering plc's Electric Thermal Solutions business, delivering thermal energy solutions to customers.

3. In addition to the acquired intangibles recognised for the acquisition of Thermocoax, £0.9m of acquired intangibles were recognised during the period for the acquisition of intangibles from distributors. Of this £0.7m was paid in the period with £0.2m deferred. In addition deferred consideration of £0.4m was paid during 2019 for acquired intangibles recognised prior to 2019.

4. £2.5m of acquisition costs were incurred during the period.

5. During the period the deferred consideration payable for the acquisition of a small German pre-revenue company within the Watson-Marlow Fluid Technology business was reassessed. The result of this reassessment was that deferred consideration of €5.8m remained appropriate and that no changes were required. The deferred consideration of €5.8m (£5.2m) was paid in the first quarter of 2020.

10. RESPONSIBILITY STATEMENT OF THE DIRECTORS ON THE ANNUAL REPORT

The Responsibility Statement below has been prepared in connection with the Company's full Annual Report for the year ending 31st December 2019. Certain parts thereof are not included within this announcement.

We confirm to the best of our knowledge:

- the Financial Statements, prepared in accordance with IFRS as adopted by the EU, give a true and fair view of the assets, liabilities, financial position and profit and loss of the company and the undertakings included in the consolidation taken as a whole;
- the Strategic Report includes a fair review of the development and performance of the business and the position of the Company and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties they face; and

- the Annual Report and Financial Statements, taken as a whole, are fair, balanced and understandable and provide the information necessary to assess the Company's performance, business model and strategy.

This Responsibility Statement was approved by the Board of Directors on 10th March 2020 and is signed on its behalf by:

N.J. Anderson, Group Chief Executive K.J. Boyd, Chief Financial Officer

11. CAUTIONARY STATEMENT

All statements other than statements of historical fact included in this document, including, without limitation, those regarding the financial condition, results, operations and businesses of Spirax-Sarco Engineering plc and its strategy, plans and objectives and the markets and economies in which it operates, are forward-looking statements. These forward-looking statements which reflect management's assumptions made on the basis of information available to it at this time, involve known and unknown risks, uncertainties and other important factors which could cause the actual results, performance or achievements of Spirax-Sarco Engineering plc or the markets and economies in which we operate to be materially different from future results, performance or achievements expressed or implied by such forward-looking statements. Spirax-Sarco Engineering plc and its Directors accept no liability to third parties in respect of this report save as would arise under English law. Accordingly, any liability to a person who has demonstrated reliance on any untrue or misleading statement or omission shall be determined in accordance with schedule 10A of the Financial Services and Markets Act 2000. It should be noted that schedule 10A contains limits on the liability of the Directors of Spirax-Sarco Engineering plc so that their liability is solely to Spirax-Sarco Engineering plc.

12. EXCHANGE RATE IMPACTS

Whilst not an IFRS disclosure or part of the audited accounts, set out below is an additional disclosure that highlights the movements in a selection of exchange rates between 2018 and 2019.

Exchange rates to sterling have been as follows:

	Average 2019	Average 2018	Change %	Closing 2019	Closing 2018	Change %
Bank of England sterling index	78.1	78.3	0%	80.3	76.6	-5%
US Dollar	1.28	1.33	4%	1.32	1.27	-4%
Euro	1.14	1.13	-1%	1.18	1.11	-6%
Renminbi	8.83	8.82	0%	9.23	8.74	-6%
Won	1,486	1,461	-2%	1,532	1,421	-8%
Real	5.04	4.85	-4%	5.33	4.94	-8%
Argentine Peso	61.83	37.44	-65%	79.32	47.96	-65%