Spirax-Sarco Engineering plc

Engineering sustainable growth

Half Year Report 2019



Financial highlights

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Operating highlights

For the six months ended 30th June 2019

- Revenue up 8% organically and at reported rates
- Adjusted operating profit margin of 21.9% in line with expectations
- Strong organic sales and profit growth in Steam Specialties and Watson-Marlow
- Continued organic sales growth in Chromalox; addressing unsatisfactory profitability
- Acquisition of Thermocoax for £135 million in May 2019
- Net debt of £391.5 million, 1.3x EBITDA
- Interim dividend increased by 10% to 32.0p

Key figures

42

Six months ended 30th June

Adjusted*	2019	2018	Reported	Organic†
Revenue	£591.2m	£547.6m	+8%	+8%
Adjusted operating profit*	£129.2m	£125.7m	+3%	+4%
Adjusted operating profit margin*	21.9%	23.0%	-110 bps	-70 bps
Adjusted profit before taxation*	£124.6m	£120.6m	+3%	
Adjusted basic earnings per share*	120.0p	119.2p	+1%	
Dividend per share	32.0p	29.0p	+10%	
Cash conversion**	71 %	75%		
Statutory	2019	2018	Reported	
Revenue	£591.2m	£547.6m	+8%	
Operating profit	£112.7m	£111.9m	+1%	
Operating profit margin	19.1%	20.4%	-130 bps	
Profit before taxation	£108.1m	£106.8m	+1%	
Basic earnings per share	102.4p	105.1p	-3%	

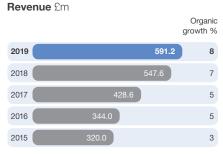
All profit measures exclude certain items which totalled £16.5 million for the six months ended 30th June 2019, as set out in



Corporate Information Officers and advisers

For more information visit

www.spiraxsarcoengineering.com



Adjusted operating profit £m



^{**} 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 acquisitions and disposals.

Spirax-Sarco Engineering plc at a glance

Thermal energy management and niche pumping specialist



Thermal Energy Management

Steam Specialties



First for Steam Solutions



EMEA Asia Pacific Americas

Industrial and commercial steam systems, including condensate management, controls and thermal energy management products and solutions

Typical uses: heating and curing, cleaning and sterilising, hot water generation, space heating and humidification

Characteristics of steam: high energy content, easy to control, environmentally safe, clean and sterile

Typical customer benefits:

improved process efficiency, product quality and safety; reduced waste; lower CO₂ emissions, energy and water use; less maintenance downtime; and compliance with industry standards

For more information visit

www.spiraxsarco.com www.gestra.com

Electrical thermal energy solutions





Electrical process heating and temperature management solutions, including industrial heaters and systems, heat tracing and a range of component technologies

Typical uses: electrical heating for industrial processes, freeze protection and component heating for industrial heaters and systems

Characteristics of electrical solutions: easy to incorporate, install and maintain, high temperatures, controllable, no emissions at point of use

Typical customer benefits: more efficient industrial processes through improved thermal energy management and control systems

For more information visit www.chromalox.com www.thermocoax.com

Pumps and associated fluid path technologies



Fluid Technology Group

Peristaltic and niche pumps and associated fluid path technologies, including pumps, tubing, specialty filling systems and products for single-use applications

Typical uses: fluid transfer in a wide range of pumping applications from those requiring sterility and accuracy to high volume pumping of corrosive materials

Characteristics of peristaltic **pumps:** fluid is contained within a tube: a sterile tube makes a sterile pump, and abrasive or corrosive fluids cannot damage the pump; gentle and highly accurate pumping; low maintenance

Typical customer benefits: more accurate, reliable and efficient fluid transfer

For more information visit www.wmftg.com

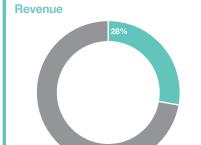
Our performance at a glance

Steam Specialties

spirax sarco







£166.6m

Reported

-2%

Organic +40/0

Adjusted operating profit

£34.3m

Adjusted operating margin

20.6%

No. of operating units at year end

34

Key industries









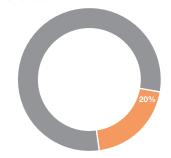
Performance summary

Sales and operating profit up 4% organically. Good sales growth in UK, Germany, Italy and Middle East. Gestra – slower sales growth against tough compare; profit up. HygroMatik divestment reduced sales by £7.0m; profit by £2.1m. Reported margin down 60 bps; HygroMatik divestment and exchange. Confident of progress in 2019 despite market uncertainties.

See page 11

Asia Pacific

Revenue



£116.8m

Reported +12%

Organic +11%

Adjusted operating profit

£33.6m

Adjusted operating margin

28.8%

No. of operating units at year end

17

Key industries









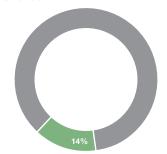
Performance summary

Organic sales up 11%; organic operating profit up 16%. Double-digit growth in China and Korea despite weakening industrial production. Mixed sales performance across other markets. New Gestra sales company in China; new sales and training facility in Thailand. Reported margin up 160 bps to 28.8%; organic margin up 130 bps. Remain well placed for progress, despite macroeconomic uncertainties.

See page 12

Americas

Revenue



£82.3m

Reported +10%

Organic +12%

Adjusted operating profit

£16.0m

Adjusted operating margin

19.4%

No. of operating units at year end

11

Kev industries









Performance summary

Organic sales up 12%; organic operating profit up 7%. North America – organic sales up; 6% growth in USA. Latin America – organic sales up 26%; benefit from Argentine peso devaluation. Very strong organic sales growth in Gestra. Margin down 350 bps; exchange headwind. Well positioned for further progress despite continuing uncertainties, slowing industrial production.

See page 13

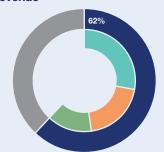
CHROMALOX



Fluid Technology Group

Steam Specialties

Revenue



£365.7m

Reported +5%

+8%

Adjusted operating profit

£83.9m

Adjusted operating margin

22.9%

No. of operating units at year end

62

Kev industries









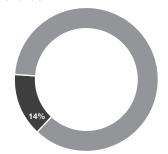
Performance summary

Organic sales up 8%, reported growth of 5% due to divestment of HygroMatik and exchange. Profit up 9% organically. Sales growth in Gestra more muted against very strong performance in 2018 and negative industrial production growth in Germany; profit up. Margin up 20 bps organically, down 50 bps as reported to 22.9%, due to exchange. Anticipate lower organic sales growth in H2.

◯ See pages 9-10, 14

Chromalox

Revenue



Reported +15%

+2%

Adjusted operating profit

Adjusted operating margin

9.7%

No. of operating units at year end

Kev industries









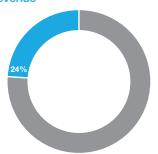
Performance summary

Organic sales up 2% against strong comparator. Strong order book expansion in Q2; weak demand in Q1. Profit down 37%; supply chain inefficiencies, increased European losses, restructuring charges, growth investments. Strengthened leadership team to deliver strategy and overcome operational challenges. Thermocoax acquired for £135m; added 8% to sales. Anticipate full year margin similar to 2018.

See pages 15-16

Watson-Marlow

Revenue



£142.4

Reported +13% +11%

Adjusted operating profit

Adjusted operating margin

31.6%

No. of operating units at year end

Kev industries









Performance summary

Organic sales up 11%; growth in all regions. Strong BioPharm and Medical Device markets. New sales companies in Colombia, Iberia, Philippines. Operating profit up 14%; organic profit up 11%. Margin up 50 bps to 31.6%; 40 bps benefit from exchange. New Aflex factory construction underway. Anticipate high single-digit sales growth; similar margin to 2018.

See pages 17-18

Review of operations



We are pleased to report strong organic sales growth of 8% in the first half of the year and organic operating profit growth of 4%, with all three businesses delivering organic sales growth ahead of industrial production."

Nicholas Anderson Group Chief Executive



Key points in this section:

- Reported revenue up 8% to £591.2 million, up 8% organically
- Adjusted operating profit up 3% to £129.2 million, up 4% organically
- Acquisition of Thermocoax for £135 million in May
- Progress against our strategic themes a contributing factor to organic sales growth
- Interim dividend increased by 10% to 32.0p
- Unless otherwise stated, the figures quoted in the text below are based on the adjusted Group results (see Note 2). Organic measures are at constant currency and exclude contributions from acquisitions and disposals.

Introduction

During the six months to 30th June 2019, the Group delivered a strong financial performance, with record sales and profit, despite weakening industrial production growth rates. We saw organic progress across all three geographic segments of the Steam Specialties business and Watson-Marlow, with Chromalox delivering sales growth despite a tough compare and continuing operational inefficiencies.

In May we completed the acquisition of electrical thermal solutions specialist Thermocoax Developpement, welcoming all its companies into the Group. Thermocoax will be reported within the Chromalox business.

Board changes

In March we announced that Caroline Johnstone was joining the Board as an Independent Non-Executive Director and a member of the Audit, Remuneration and Nomination Committees. Two months later, following the conclusion of our Annual General Meeting in May, Clive Watson, Senior Independent Director and Chair of the Audit Committee, stepped down, having served for nine years on the Board. As a result of Clive's departure, Kevin Thompson joined the Board as an Independent Non-Executive Director and Chair of the Audit Committee and Dr Trudy Schoolenberg was appointed to the position of Senior Independent Director. We would like to express our sincere thanks to Clive for the significant contribution he made to the development of the Group during his nine year tenure and welcome Caroline and Kevin to the Board.

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

Market environment

During the first half of 2019, global industrial production growth remained positive at 1.6%, compared with 3.5% in the first half of 2018. In the first six months of 2019, industrial production growth in Europe and Asia Pacific (excluding China) was flat and Latin America saw a contraction, compared with the same period in the prior year. China's industrial production growth rate was 5.8%, raising Asia Pacific's growth rate as a whole to 3.0%. North America maintained positive growth, although at almost half the level of the prior year and with a slowing growth rate in the second quarter. The latest forecast for global industrial production growth for the whole of 2019 is 1.6%, approximately half the 3.1% achieved in 2018.

				Acquisitions			
	HY 2018	Exchange	Organic	and disposals	HY 2019	Organic	Reported
Revenue	£547.6m	£2.4m	£42.4m	(£1.2m)	£591.2m	+8%	+8%
Adjusted operating profit	£125.7m	(£0.8m)	£5.4m	(£1.1m)	£129.2m	+4%	+3%
Adjusted operating profit margin	23.0%				21.9%	-70 bps	-110 bps
Statutory operating profit	£111.9m				£112.7m		+1%
Statutory operating profit margin	20.4%				19.1%		-130 bps

Progress in the half year

Sales

Sales grew in the first half of the year, up 8% to £591.2 million (2018: £547.6 million).

HygroMatik, due to its limited strategic fit, was divested on 30th November 2018 and as a result made no contribution to sales in the first half of 2019, compared with £7.0 million in the first half of 2018. This was partially offset by a £5.8 million contribution to sales by Thermocoax, which was acquired on 13th May 2019. Acquisitions and disposals thus resulted in a net £1.2 million reduction during the period.

On average in the first half of the year, sterling was slightly weaker against the basket of currencies that we trade in compared to the same period in 2018, providing a small tailwind, which increased sales on translation by £2.4 million.

Excluding the impacts of acquisitions, disposals and currency movements, the Group saw 8% organic sales growth.

Within the Steam Specialties business, which accounted for 62% of Group revenue in the first half of the year, organic sales growth was 8%, with good growth in all geographic segments.

Organic sales in Chromalox, which accounted for 14% of Group revenue, were up 2% against a strong performance in the same period of 2018. Reported sales grew 15%, boosted by the inclusion of seven weeks of Thermocoax and favourable exchange movements.

Watson-Marlow, which accounted for 24% of Group revenue, had an exceptionally strong start to the year and saw sales grow 11% organically, 13% on a reported basis.

Adjusted operating profit

Group adjusted operating profit was 4% ahead of the prior year on an organic basis and, at £129.2 million, was up 3% at reported exchange rates, negatively impacted by a net £1.1 million from acquisitions and disposals, and a £0.8 million exchange headwind.

In the Steam Specialties business, adjusted operating profit was 9% higher than the same period in the prior year on an organic basis, with good growth in all three geographic segments. The divestment of HygroMatik in the second half of 2018 served to reduce adjusted operating profit by £2.1 million, compared with 2018, and exchange had a £2.5 million negative impact.

Chromalox had adjusted operating profit of £8.1 million, down 37% organically on the same period in the prior year, as we continued to step up our investments for future growth and improved profitability, while responding to manufacturing inefficiencies. Thermocoax contributed £1.0 million to adjusted operating profit in the period and, with a small benefit from exchange, adjusted operating profit for the total Chromalox business was down 24%.

Watson-Marlow had an excellent start to the year with adjusted operating profit of £45.0 million, 11% ahead on an organic basis and up 14% at reported exchange rates.

The Group adjusted pre-tax profit increased by 3% to £124.6 million (2018: £120.6 million). The pre-tax profit for the first half on a statutory basis was £108.1 million (2018: £106.8 million). The reconciling items between the adjusted pre-tax profit and the statutory pre-tax profit are shown in Note 2. In the first half of 2019, the reconciling items primarily related to the amortisation of acquisition-related intangible assets and acquisition-related items.

Adjusted operating profit margin

The Group adjusted operating profit margin fell by 110 bps to 21.9% due to the disposal of the highly profitable HygroMatik business, a negative exchange impact and the lower operating profit in Chromalox. On an organic basis, the Group margin decreased 70 bps.

The Steam Specialties business delivered an operating profit margin of 22.9%, a reported decrease of 50 bps over the same period in the prior year, due to the impact of exchange and the disposal of HygroMatik. On an organic basis the margin increased by 20 bps. Chromalox's margin contracted by 500 bps to 9.7%. Excluding the impact of the Thermocoax acquisition and favourable currency movements, the organic margin decreased by 560 bps as a result of the full effects of the 2018 revenue investments for growth, a restructuring programme in North America and increased losses in the European operations. Watson-Marlow's operating profit margin was ahead 50 bps to 31.6% aided by a currency tailwind; on an organic basis the margin was up 10 bps.

Financing Expense

Net financing expense fell to £4.6 million from £5.1 million. It consists of net bank interest of £2.8 million (2018: £4.1 million), interest on net pension liabilities of £1.2 million (2018: £1.0 million) and for the first time, following the introduction of IFRS 16, interest on lease liabilities of £0.6 million (2018: £0).

We anticipate a full year charge in the region of £10.0 million.

Taxation

As expected, due to changes to our internal financing structures and the geographical mix of adjusted profits, the Group effective tax rate on adjusted profits in the half year rose to 29.0% (2018: 27.1%); we anticipate a similar level for the full year.

The effective tax rate on statutory profit increased to 30.1% (2018: 27.4%) due to the factors outlined above combined with higher Thermocoax acquisition-related costs where no tax relief is available.

Earnings per share

Adjusted basic earnings per share increased by 1% to 120.0 pence (2018: 119.2 pence), less than the increase in adjusted operating profit due to the increased tax rate. Basic earnings per share on a statutory basis was 102.4 pence (2018: 105.1 pence).

Currency impacts

On average during the first half of 2019, sterling was slightly weaker against the basket of currencies that we trade in, compared with the same period in the prior year. Reported sales saw a small (less than half of one per cent) boost as a result of translation. However, due to geographic weighting, exchange had a small negative impact on Group profit.

Note 14 includes a table of the Group's significant exchange rates.

Review of operations

Dividends

The Board has declared an interim dividend of 32.0 pence (2018: 29.0 pence) per ordinary share, an increase of 10%. The dividend will be paid on 8th November 2019 to shareholders on the register at the close of business on 11th October 2019. The final dividend of 71.0 pence per share in respect of 2018 was paid on 24th May 2019 at a cash cost of £52.3 million.

Strategy for growth

The six key themes of our strategy for organic growth remain unchanged:

- Increase direct sales effectiveness through sector focus;
- Develop the knowledge and skills of our expert sales and service teams;
- Broaden our global presence;
- Leverage our R&D investments;
- · Optimise supply chain effectiveness; and
- Operate sustainably and help improve our customers' sustainability.

As we continue to rigorously implement these strategic themes across all our Group businesses we are achieving our aim of delivering organic growth that outperforms our markets.

Strategic implementation

During the first six months of 2019, progress against our six strategic themes was a contributing factor to the organic sales and profit growth achieved.

We have continued to broaden our global presence. Four new operating companies commenced trading in the first half of the year: Watson-Marlow Philippines, Watson-Marlow Colombia, Watson-Marlow Iberia (located in Spain) and Gestra China. In addition, Watson-Marlow established a direct sales presence in Portugal and Chromalox established a sales office in the Midwest of the USA, converting this region from distributor to direct sales. The new sales companies and direct sales presence will strengthen our local presence and enhance sales growth as we serve customers using our proven consultative sales approach.

The programmes of the Academy are under continuous review and development to ensure that they deliver the best possible training to our sales engineers. During the first half of the year additional learning materials were added to the previously-launched Yellow and Orange belts to further strengthen these programmes (the programmes of the Spirax Sarco Academy, based on the grading in Judo, are structured into levels called "belts", with each belt representing an increasing level of expertise). The Green belt materials, which were launched in English in 2018, have been further developed, translation continues apace and we are on track to roll them out in an additional 15 languages by the end of the year. Blue belt programmes are being developed and are on track for a launch in English this year. In addition, a new "Consultative Selling - Fundamentals" programme has been developed and the initial roll-out commenced. To date, over 1,100 engineers have completed the White belt, over 1,000 have completed the Yellow belt and nearly 600 have completed the Orange belt.

A number of new products were launched during the first half of the year, including "ReNu PU" a new pump head for the Qdos range from Watson-Marlow Pumps, which provides increased chemical compatibility and opens new opportunities for low-flow industrial and environmental applications; a new "NBR" (nitrate rubber) hose from Bredel pumps that improves application reach in the Food and Beverage sector; and a new Spirax Sarco Clean Steam Generator for the Healthcare market.

Acquisition

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 and is expected to be accretive to Group earnings in 2019. 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 has become part of our Chromalox business. In the year ended 31st December 2018, the business had revenues of €49.8 million and EBIT of €12.1 million.

The acquisition will significantly enhance our electrical process heating capabilities, enabling us to address critical high-value applications where product cost is a secondary concern to reliability and performance. In particular, the US market holds significant potential for Thermocoax. It has grown substantially there in recent years but is constrained by lack of critical mass and local credentials. Chromalox has scale, contacts and reputation in the USA that can support faster penetration of the market as well as enhancing its offering to its own customers. In Europe, Thermocoax will strengthen our market position, capabilities and brand recognition in a broad range of attractive industries and applications beyond those where Chromalox currently operates.

In the rest of the world both Thermocoax and Chromalox rely mainly on agents and distributors and the combination of the two businesses will allow us to accelerate our direct sales investments in these markets, while leveraging the extensive global infrastructure of the Group to facilitate ease of entry for direct sales.

The adoption of IFRS 16 from 1st January 2019 has resulted in the inclusion of £38.4 million of right-of-use assets in the Statement of Financial Position at 30th June 2019 together with a lease liability of £41.3 million. In the six months to 30th June 2019, operating profit was increased by £0.6 million, which was matched by an increase in lease liability interest of £0.6 million, giving a zero net impact to the Income Statement, Further information can be found in Note 1.

Statement of Financial Position and cash flow

Capital employed increased by 12% from the beginning of the year, to a reported £542.9 million at 30th June 2019. Net investment in fixed assets was higher than depreciation in the first half of the year as we continued to invest in the business, in particular in the recent acquisitions. The traditional weighting will increase capital spend in the second half of the year, particularly due to the continued construction of the new Aflex factory, in Yorkshire, UK, with total capital spend for the full year anticipated to be in the region of £70 million.

Adjusted cash flow	30th June 2019 £m	30th June 2018 £m
Adjusted operating profit	129.2	125.7
Depreciation and amortisation	22.4	15.4
Adjusted earnings before interest, tax, depreciation and amortisation	151.6	141.1
Cash payments to pension schemes (more)/less than the charge to adjusted operating profit	(2.4)	(0.4)
Equity-settled share plans	3.2	2.9
Working capital changes	(40.9)	(34.1)
Net capital expenditure (including software and development)	(19.3)	(15.8)
Adjusted cash from operations	92.2	93.7
Net interest	(3.2)	(4.1)
Income taxes paid	(36.2)	(28.9)
Adjusted free cash flow	52.8	60.7
Net dividends paid	(52.6)	(45.9)
Purchase of employee benefit trust shares/Proceeds from issue of shares	(7.5)	(6.6)
Disposals/(Acquisitions) (including costs)	(137.7)	(2.9)
Repayments of principal under lease liabilities	(5.3)	_
Cash flow for the period	(150.3)	5.3
Exchange movements	(5.4)	(4.7)
Opening net debt	(235.8)	(373.6)
Net debt at 30th June	(391.5)	(373.0)

Cash generation remains a priority. Cash conversion in the first half was 71% and is expected to increase to 80% for the full year. We continue to focus on maintaining a strong balance sheet. Net debt at 30th June 2019 was £391.5 million compared to net debt of £235.8 million at 31st December 2018, the increase due to the acquisition of Thermocoax. Net debt equated to 1.3x trailing twelve months' EBITDA. Adjusted Free Cash Flow of £52.8 million was 13% lower than the prior year. Working capital increased as inventory levels rose ahead of the second half, particularly in the EMEA region, in order to mitigate potential Brexit supply chain disruption and maintain delivery to customers. These inventory levels will be maintained until the Brexit issue has been resolved. At constant currency working capital as a percentage of the last twelve months' sales decreased by 50 bps to 24.4%, compared with June 2018. We continue to expect the ratio of net debt to EBITDA to be in the region of 1.0 at 31st December 2019.

The defined benefit pension deficit increased in the half year and was, before any associated deferred tax assets, £89.3 million at 30th June 2019 compared to £85.1 million at 31st December 2018.

Outlook

We continue to invest in the implementation of our strategy, which is enhancing our ability to outperform our markets and generate our own growth.

Our markets remain strongly influenced by industrial production growth rates. Our operating assumption for the remainder of the year is for relatively stable levels of global industrial production growth albeit at significantly reduced rates than experienced in 2018 and below previous estimates.

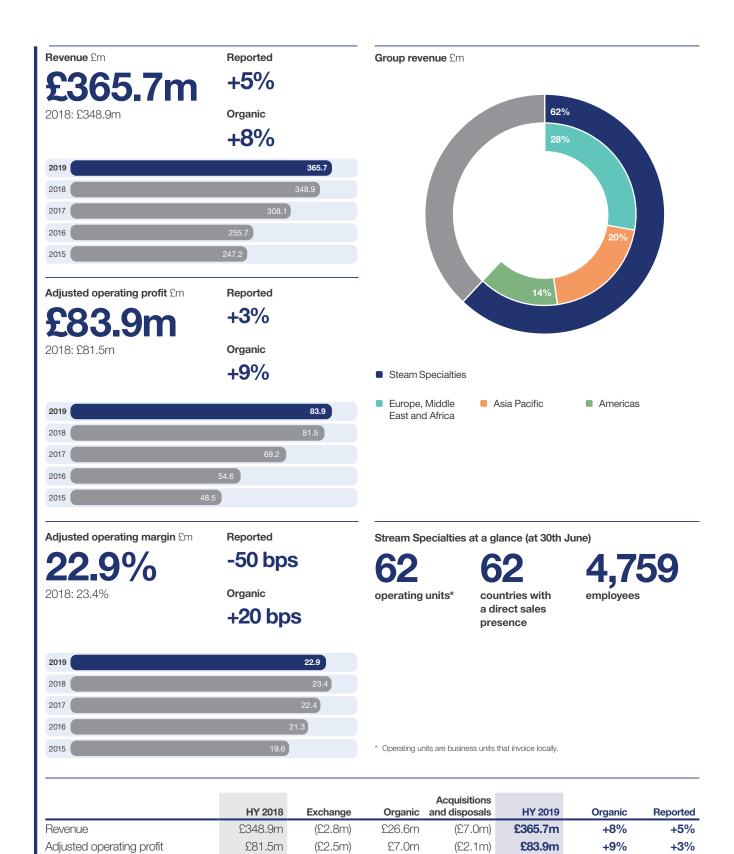
If exchange rates at the end of June were to remain unchanged until the end of the year we would anticipate minimal impact on either sales or profit due to foreign exchange movements. Variations in exchange rates are often volatile and unpredictable, therefore the actual impact could be significantly different.

The Group continues to have limited forward visibility of demand, with order books in the range of seven to eight weeks of order intake. In the Steam Specialties business, we anticipate levels of organic sales growth to more than halve in the second half of 2019 due to the weaker than originally forecast global industrial production environment as well as the non-repeat nature of some of the growth in the first half that included several large orders in China and Korea, Brexit stock build and a stronger than anticipated currency devaluation in Argentina. The strong start in Watson-Marlow, tempered by the macro-economic climate, leads to expectations of high single-digit growth for the year, while for Chromalox we are planning for similar levels of organic growth as experienced in the first half of the year.

Our expectation for the adjusted operating profit margin remains in line with that outlined in our full year results statement in March where we anticipated that the Group adjusted operating profit margin in 2019 would be at a similar level to 2018 despite the absence of the higher margin HygroMatik business and last year's devaluation-driven profit boost from Argentina.

While the strong performance in the first half of this year was ahead of our expectations, we believe that second half trading conditions will be below our earlier estimates. Therefore, overall, our full year expectations remain unchanged. Assuming no significant deterioration in trading conditions, the Board remains confident that the Group will continue to make progress in 2019.

Steam Specialties



22.9%

£81.1m

22.2%

+20 bps

-50 bps

-10 bps

+4%

23.4%

£77.8m

22.3%

Adjusted operating profit margin

Statutory operating profit margin

Statutory operating profit

Market overview

Industrial production growth rates in the EMEA region steadily weakened throughout 2018 and this continued into 2019, averaging 0.7% during the first half of 2019. Germany and Italy both experienced contraction in industrial production during the first half of the year, as did a number of smaller markets in the region, such as Norway, Portugal and Turkey. Industrial production growth in the UK and South Africa was broadly flat, compared with the same period in the prior year, and was close to 1% in France and some of our smaller markets, such as the Czech Republic and Spain. Only a few markets, such as Denmark and Poland, experienced anything approaching robust growth. Brexit remained a cloud of uncertainty in the region throughout the period, with political change in Spain, Egypt and Turkey also contributing towards uncertainty in those countries.

Excluding China, industrial production growth in Asia Pacific was flat in the first half of the year. Industrial output in China was lower than the same period of 2018, with growth of around 5.8% in the first six months of the year. Including China, industrial production growth in the region averaged 3%. Korea, our second largest market in the region, saw contraction of over 2%, with Japan, Singapore, Thailand and Taiwan also experiencing a negative industrial production growth rate. Elsewhere in the region, industrial production growth was more mixed, with good growth in New Zealand, the Philippines and Indonesia, but lower growth rates of around 1% in Australia and India.

Within the Americas, North America saw relatively good growth in the first quarter of the year (buoyed by the USA) but saw a significant slowing of growth in the second quarter. Latin America experienced continued contraction in industrial production growth rates, with Argentina, Brazil, Chile and Mexico all experiencing negative growth in this period. The Argentine economy has continued to contract strongly in part due to political uncertainty in the run-up to the Presidential election in October.

Progress in the half year

Good progress was made in the Steam Specialties business in the first half of 2019, with reported sales of £365.7 million. Organically, revenue was up 8%. On a reported basis, revenue was ahead 5%, impacted by the sale of HygroMatik in the second half of 2018, as well as a small negative impact from exchange movements.



Good progress was made in the Steam Specialties business in the first half of 2019, with reported sales of £365.7 million. Organically, revenue was up 8%."

Adjusted operating profit was ahead of the prior year, at £83.9 million, up 9% on an organic basis. Adjusted operating profit was up 3% on a reported basis, impacted by the divestment of the strongly profitable HygroMatik and a negative exchange impact. On an organic basis, the adjusted operating profit margin was up 20 bps but was down 50 bps on a reported basis at 22.9%.

Gestra, which joined the Steam Specialties business in May 2017, saw more muted organic sales growth than in the prior year, due in part to its very strong performance in 2018 and the negative industrial production growth rate in Germany, its core market. In addition, distributor sales were affected by political and economic uncertainty in Europe, and weakening global industrial production growth rates led to a softening in OEM demand. Nevertheless, Gestra saw an increase in adjusted operating profit due to careful pricing and efficiency projects across the business.

Statutory operating profit for the Steam Specialties business increased from £77.8 million in the first half of 2018 to £81.1 million, driven by the factors outlined above, combined with a £0.9 million fall in the charge of acquisitionrelated intangibles.

Steam Specialties:

Europe, Middle East and Africa (EMEA)

Progress in the half year

Against a backdrop of low or negative industrial production growth rates across our largest markets in the EMEA region, we achieved organic sales growth of 4%. At reported exchange rates and including the £7.0 million loss of revenue due to the divestment of HygroMatik, sales of £166.6 million were down 2%. In the first quarter of the year we saw a small benefit from customers building buffer stocks ahead of the UK's anticipated exit from the European Union on 29th March.

Organic sales growth in the region was generally robust, with good growth in the UK, Germany and Italy, and above market growth in France. Elsewhere in the region, we saw particularly strong growth in the Middle East, Eastern Europe, Russia and South Africa, with our new operating companies in Hungary, Romania and the Maghreb all making good progress. The implementation of our strategy delivered strong sales growth in our focused sectors of Food & Beverage, Healthcare and Oil & Gas, partially offset by a weaker OEM sector.

In March this year we reported some softening of demand for large projects in the latter half of 2018, which continued into 2019, although this was more than offset by growth in self-generated small projects as well as maintenance, repair and overhaul (MRO) base business.

Sales in Gestra grew more slowly, against a very tough comparison with the same period in the prior year, mostly due to a contraction in industrial production growth rates in Germany and global weakness in OEM markets.

At £34.3 million, adjusted operating profit was down 4% on a reported basis, impacted by the divestment of HygroMatik and exchange. Organically, adjusted operating profit increased by 4%, with both Spirax Sarco and Gestra contributing to this growth. Gestra benefited from improved pricing discipline and efficiencies. Spirax Sarco saw organic growth, despite incremental investments in emerging markets, as a result of operating leverage on the higher volumes and a favourable product mix arising from the higher proportion of MRO and small, self-generated project sales.

The adjusted operating profit margin fell by 60 bps to 20.6%. On an organic basis, excluding the impact of exchange and HygroMatik, the margin was flat.

Against a backdrop of low or negative industrial production growth rates across our largest markets in the EMEA region, we achieved organic sales growth of 4%."

Reported **-2%** 2018: £169.1m



Organic

+4%

Adjusted operating profit £m Reported Organic **-4%** 2018: £35.8m



	HY 2018	Exchange	Organic	Acquisitions and disposals	HY 2019	Organic	Reported
Revenue	£169.1m	(£1.7m)	£6.2m	(£7.0m)	£166.6m	+4%	-2%
Adjusted operating profit	£35.8m	(£0.6m)	£1.2m	(£2.1m)	£34.3m	+4%	-4%
Adjusted operating profit margin	21.2%				20.6%	0 bps	-60 bps
Statutory operating profit	£33.3m				£32.4m		-3%
Statutory operating profit margin	19.7%				19.4%		-30 bps

Steam Specialties:

Asia Pacific

Progress in the half year

Sales in Asia Pacific were up 11% organically despite weakening industrial production growth rates in the region. At £116.8 million reported sales were up 12%, with a marginal benefit from exchange. Sales in the first quarter were boosted by a small number of large Oil & Gas and Electronics projects from China and Korea, supported by good base business and an increase in self-generated sales. Following a strong start to the year, we began to see some weakening of demand in the second quarter as sales to OEMs, in particular, were impacted by the global softening in industrial production growth rates. The Food & Beverage, Healthcare and Pharmaceutical industries continued to grow, albeit at a slower pace.

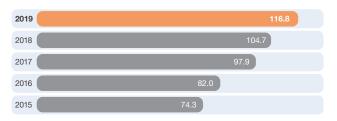
China delivered excellent, double-digit, organic sales growth during the period, while our second largest operating company in the region, Korea, also saw double-digit growth. Elsewhere, in our smaller markets, the picture was more mixed with strong growth in Malaysia, Singapore and Thailand, but contraction in Japan, Australia and the Philippines. Our recently established whollyowned direct sales company in India continued to make good progress with very strong sales growth.

Gestra, which has a small local presence in the region, contributed to sales growth and benefited from a new sales company in China. which commenced trading in April this year.

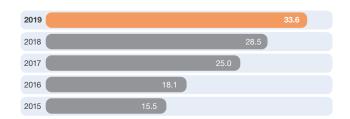
Adjusted operating profit increased to £33.6 million, a 16% organic increase. A positive exchange impact further increased profit, giving an 18% reported increase in profit over the prior year. The adjusted operating profit margin expanded by 160 bps, to 28.8% due to strong sales growth, pricing discipline and a small benefit from a positive product mix as a result of a larger proportion of selfgenerated project sales, as well as a benefit from the exchange tailwind. On an organic basis, the operating profit margin expanded by 130 bps.

Sales in Asia Pacific were up 11% organically despite weakening industrial production growth rates in the region. At £116.8 million reported sales were up 12%, with a marginal benefit from exchange."

Revenue £m Reported Organic +11% 2018: £104.7m



Reported Adjusted operating profit £m Organic +18% +16% 2018: £28.5m



	HY 2018	Exchange	Organic	Acquisitions and disposals	HY 2019	Organic	Reported
Revenue	£104.7m	£0.4m	£11.7m	_	£116.8m	+11%	+12%
Adjusted operating profit	£28.5m	£0.4m	£4.7m	_	£33.6m	+16%	+18%
Adjustable operating profit margin	27.2%				28.8%	+130 bps	+160 bps
Statutory operating profit	£28.2m				£33.6m		+19%
Statutory operating profit margin	26.9%				28.8%		+190 bps

Steam Specialties:

Americas

Progress in the half year

At £82.3 million, reported sales were up 10%. Excluding a negative impact from exchange, sales were up 12% on an organic basis.

Organic sales in North America were ahead of the same period in the prior year. Spirax Sarco USA grew by 6%, aided by a strong order book carried over into 2019, which has now been realised. Sales in Latin America were strongly ahead, up 26% on an organic basis, despite a contraction in industrial production across much of the region. Organic sales growth benefited from the continued devaluation of the Argentine peso but to a much lesser extent than was seen in the prior year and this was negated by a corresponding exchange headwind.

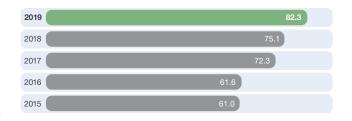
The small Brazilian control valve manufacturer, Hiter Controls, which we acquired in 2016, had an excellent start to the year. Spirax Sarco Brazil was also strongly ahead as was our relatively new sales company in Colombia. Mexico, however, served as a drag on the Americas region as market uncertainty caused by continuing US-Mexican trade tensions undermined confidence and stifled investment in the country.

Gestra, which has a small local presence in the Americas, saw very strong organic sales growth.

Adjusted operating profit in the Americas was down 7% on a reported basis, at £16.0 million, as a result of a large foreign exchange headwind in Latin America. On an organic basis. adjusted operating profit was ahead 7%. Reported adjusted operating profit margin was down 350 bps at 19.4%. On an organic basis, the fall was 80 bps. Both the foreign exchange loss and the organic gain were affected by the continued devaluation of the Argentine peso to an approximately equal and opposite effect.

At £82.3 million, reported sales were up 10%. Excluding a negative impact from exchange, sales were up 12% on an organic basis. On an organic basis, adjusted operating profit was ahead 7%."

Revenue £m Reported **Organic** +10% +12% 2018: £75.1m



Adjusted operating profit £m Reported Organic **-7%** +7% 2018: £17.2m



	HY 2018	Exchange	Organic	Acquisitions and disposals	HY 2019	Organic	Reported
Revenue	£75.1m	(£1.5m)	£8.7m	_	£82.3m	+12%	+10%
Adjusted operating profit	£17.2m	(£2.3m)	£1.1m	_	£16.0m	+7%	-7%
Adjusted operating profit margin	22.9%				19.4%	-80 bps	-350 bps
Statutory operating profit	£16.3m				£15.1m		-7%
Statutory operating profit margin	21.7%				18.3%		-340 bps

Steam Specialties business strategy update

With slowing global industrial production growth rates, and accompanying softening in demand for large projects, it is increasingly important to focus our efforts on strengthening the capabilities of our direct sales engineers to enhance their knowledge and equip them to deliver bespoke customer solutions, self-generating sales growth. The Spirax Sarco Academy has continued to play an essential role in the strategic implementation across all segments of the Steam Specialties business in the first half of 2019. Evidence of the successful implementation of the strategy can be found in the double-digit growth in self-generated sales that was achieved across much of the Asia Pacific region in the first half of this year, where a historical reliance on capital projects is gradually being replaced by a growth in MRO business and self-generated sales.

In support of customer service we commenced the roll out of a new CRM (customer relationship management) platform in the Americas segment, which will be in place across all our sales companies in the region by the end of the year. The new CRM platform will improve the robustness of our sales processes and help to deliver improved customer service in the region.

A new Gestra operating company began trading in China in April 2019. The new company demonstrates our commitment to the dual brand strategy within the Steam Specialties business, which is designed to provide customer choice while allowing each business to play to its strengths and address those industries where it has the greatest expertise. Elsewhere, in the Asia Pacific region, a new Spirax Sarco office, training centre and warehouse were opened in Thailand in March 2019. The new facilities will raise Spirax Sarco's brand image and increase our attractiveness as an employer.

The integration of Gestra into the Group is now almost complete. The company is benefiting from the relaunch of its brand, significantly improved customer targeting and investments in sales resource.

Steam Specialties outlook

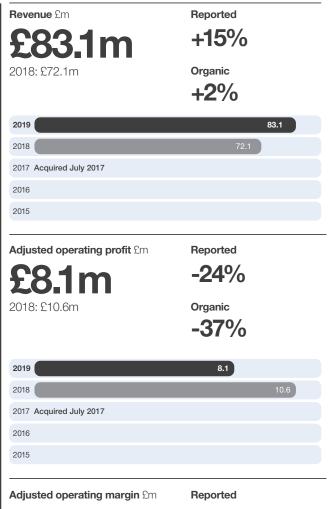
Forecasts suggest that global industrial production growth rates will be low throughout the remainder of the year, with developed markets achieving growth of less than half of one percent in the second half of the year and emerging markets a little over 3%, giving a global annual growth rate of 1.6%, compared with 3.1% in 2018.

Even in the short term, however, the economic outlook remains difficult to predict as all of the global market risks and uncertainties that existed as we entered 2019 remain at the same level or higher. Lack of material progress in Brexit negotiations looks likely to continue to act as a drag on some customer investments in the UK and Europe. This, combined with the rapid slowing of industrial production growth in the USA in the second quarter of this year and indications that Chinese growth may slow further, suggests that market conditions in the second half of the year may be worse than those experienced in the first half of the year.

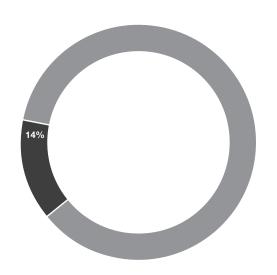
Growth in the first half of the year was boosted by a number of factors that we do not anticipate to repeat in the second half. This, coupled with economic uncertainty, leads us to believe that growth in the Steam Specialties business in the second half of the year will return to a more normal correlation to industrial production growth.

Despite the continuing uncertainty, our resilient business model, ability to self-generate sales and significant maintenance and repair revenues, mean that we anticipate a similar level of full year profitability in the Steam Specialties business as was delivered in 2018, which benefited from the higher margin HygroMatik business and a devaluation-driven profit boost from Argentina.

Chromalox



Group revenue £m



2018: 14.7%

-500 bps

Organic

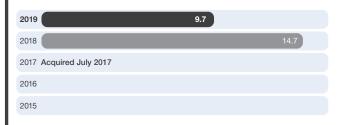
-560 bps

Chromalox at a glance (at 30th June)

operating units*

countries with a direct sales presence

1,550 employees



* Operating units are business units that invoice locally.

				Acquisitions			
	HY 2018	Exchange	Organic	and disposals	HY 2019	Organic	Reported
Revenue	£72.1m	£3.4m	£1.8m	£5.8m	£83.1m	+2%	+15%
Adjusted operating profit	£10.6m	£0.6m	(£4.1m)	£1.0m	£8.1m	-37%	-24%
Adjusted operating profit margin	14.7%				9.7%	-560 bps	-500 bps
Statutory operating profit	£4.6m				£1.7m		-63%
Statutory operating profit margin	6.4%				2.0%		-440 bps

Market overview

While broadly positive, slowing global industrial production growth rates, economic and political uncertainty arising from US-China and US-Mexico trade tensions, Brexit and governmental elections in a number of countries caused market uncertainty and large project investment hesitancy, particularly in the first four months of the year. Industrial production remained positive in Chromalox's largest market, the USA, although growth slowed significantly from over 4% in the second half of 2018 to only 1.4% in the second quarter of 2019.

Progress in the half year

Reported sales were ahead 15% compared with the same period in the prior year, at £83.1 million, boosted by a £3.4 million benefit from exchange and a £5.8 million contribution to sales from Thermocoax, which joined the Spirax-Sarco Engineering plc Group on 13th May 2019, adding 8% to first half revenues. Organically, sales increased by 2%, compared to a strong first half in 2018 that saw 7% growth. The cumulative growth in the first two years of ownership remains in line with our expectations at the time of acquisition.

Demand growth was weak in the first guarter of 2019, reflecting a market hesitation as a result of falling industrial production growth rates and a demanding comparison to the same period of 2018 that saw demand expand by double-digits. However, delayed project orders were confirmed in the latter months of the first half, expanding the order book by 8% and supporting sales growth expectations for the second half of the year. Sales in Europe were down, while Asia Pacific was strongly ahead of the same period in the prior year, as they benefited from shipping projects carried over from 2018.

Adjusted operating profit of £8.1 million was down 24% on a reported basis. A £1.0 million contribution to adjusted operating profit from Thermocoax and a small benefit from exchange, partially offset a 37% organic reduction. As previously reported, profit was significantly affected by a number of supply chain difficulties exposed by the rapid volume growth last year. We are actively addressing this and have recruited externally a new Vice President of Operations to oversee and improve management of the supply facilities. We have also invested in a number of efficiency initiatives to improve performance in the second half of this year. The profit in the half year includes the full effects of the 2018 revenue investments for growth and a restructuring charge in North America of £0.8 million that will provide annual benefits in the region of £2.0 million going forward. Losses in our European operations, 14% of revenues, increased by £2.3 million as manufacturing inefficiencies and lower throughput volumes were compounded by the shipment of lower margin projects secured in 2018. We are actively working on improvement plans to return our European operations to profitability over the course of the next two years.

At 9.7% the adjusted operating profit margin was 500 bps lower than the comparable period, for the reasons outlined above. In addition, a number of low-margin large orders from 2018 were shipped in the first half of this year creating a drag on margins. Despite this, the North American business, which represents 80% of Chromalox revenues, maintained a margin of above 20% before restructuring costs.

Statutory operating profit reduced from £4.6 million in the first half of 2018 to £1.7 million. The reduction is due to the factors outlined above plus a £0.4 million increase in acquisition-related costs, which included Thermocoax in 2019.

Strategy update

Chromalox joined the Group two years ago and our strategies for growth are progressing well, particularly expansion outside of its strong North American base. We are strengthening the business organically with the establishment of new sales offices, leveraging the existing Spirax Sarco infrastructure. In line with our acquisition strategy, European-based Thermocoax joined the Group in May. Our long-term expectations for the business remain unchanged.

Having entered a number of new territories for direct sales in 2018, during the first half of 2019 we focused on strengthening the direct sales teams already in place and expanding our direct sales presence in the USA. Following on from the 2018 conversion of the West Coast representatives to direct sales, we have converted the Midwest from distributor to direct sales, to ensure that our customers are able to benefit from the expertise and bespoke solutions offered by our sales engineers. While it is still early days, we have observed a promising uplift in business in this region as a result of the transition to direct sales. Expansion into Latin America is going well, albeit from a small base, and our most recent direct sales offices in the Nordics, Southern Europe and the UAE are progressing in line with our expectations.

Electrical thermal solutions specialist, Thermocoax, joined the Group in May, in line with our strategy to strengthen Chromalox outside its North American heartland. The acquisition, which is expected to grow at mid-single digits, had sales of €49.8 million and EBIT of €12.1 million in the year ended 31st December 2018. It expands our reach into a number of critical high-value applications where product cost is a secondary concern to reliability and performance, such as in the Semi-conductor, Nuclear, Aeronautics and Space industries. Chromalox will benefit from Thermocoax's strong market position in Europe, which will be reciprocated by strengthening Thermocoax's position in North America.

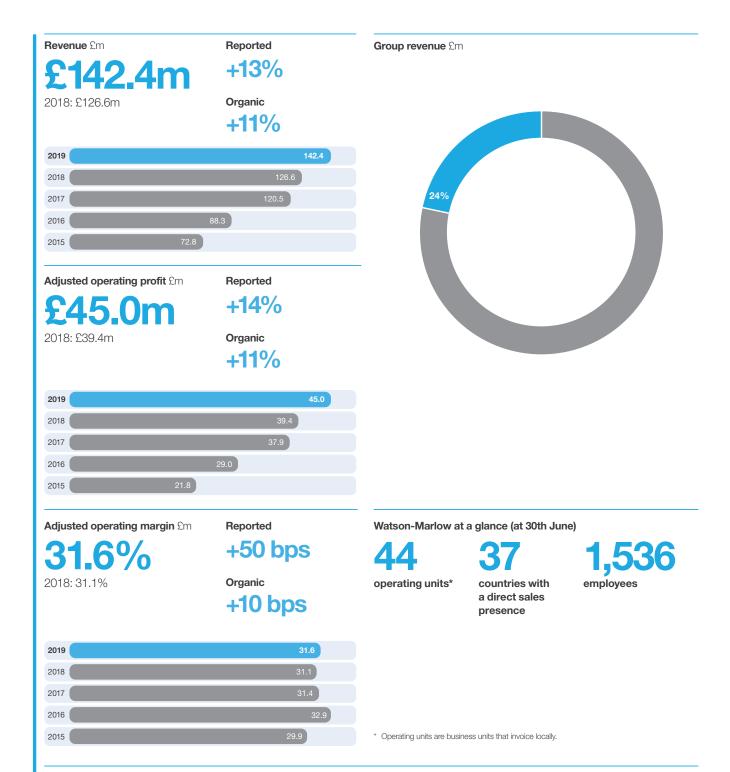
We have strengthened the Chromalox leadership team to ensure delivery of our strategic vision and to help overcome the operational challenges exposed by the company's very strong growth in 2018. In addition to the new Vice President of Operations, we have relocated a senior Finance Director from the Steam Specialties business to the USA into the position of Vice President of Finance and Administration. Also, we are finalising the appointment of a new President of the enlarged Chromalox business who will replace the previous President who left the company in March.

Outlook

Our expectations remain for organic sales growth ahead of global industrial production growth as we focus on maintaining a good level of base business and growth in small project sales, while delivering a number of large projects carried over from the previous year. We anticipate that a combination of improved operational efficiencies, increased operational gearing from seasonally higher second half shipments, benefits from the restructuring in the first half, improved pricing discipline and the acquisition of higher-margin Thermocoax, will result in the adjusted operating profit margin for the full year being similar to that reported in 2018.

Although market conditions have softened during the first six months of the year, we have a healthy order book and remain confident in our ability to improve Chromalox's performance and deliver sustainable profitable growth, therefore our longer-term expectations for this business remain unchanged.

Watson-Marlow



				Acquisitions			
	HY 2018	Exchange	Organic	and disposals	HY 2019	Organic	Reported
Revenue	£126.6m	£1.8m	£14.0m	_	£142.4m	+11%	+13%
Adjusted operating profit	£39.4m	£1.1m	£4.5m	_	£45.0m	+11%	+14%
Adjusted operating profit margin	31.1%				31.6%	+10 bps	+50 bps
Statutory operating profit	£35.6m				£40.2m		+13%
Statutory operating profit margin	28.1%				28.2%		+10 bps

Market overview

Watson-Marlow's geographic presence and wide industrial customer base is broadly similar to the Steam Specialties business and, as such, the economic conditions and industrial production growth rates experienced by Watson-Marlow in its markets are reflective of those experienced elsewhere in the Group. The Pharmaceutical & Biotechnology industry, which accounts for approximately 45% of Watson-Marlow's sales, has continued to experience good growth across all geographic regions, as has the Medical Devices & Diagnostics sector, which now represents over 6% of the business' sales. The uptake of single-use technology within this sector continues to be strong, benefiting Watson-Marlow Tubing and BioPure's product ranges in particular. Industrial markets have generally experienced overall growth, but with regional and sector variations.

Progress in the half year

On an organic basis sales increased by 11% and a small currency tailwind boosted sales giving reported sales of £142.4 million, a 13% increase over the same period in the prior year. All geographic regions experienced growth, with EMEA performing particularly strongly with our young operating companies in Ireland and the UAE delivering strong growth. In Asia Pacific performance was more varied, with China and Japan seeing excellent growth while some of our smaller markets found conditions more challenging. North America enjoyed solid growth, with our young operating company in Canada achieving good growth. Despite challenging economic conditions in Latin America, most of our operations delivered solid growth, with Brazil seeing good growth in the Mining, Environmental, Pharmaceutical & Biotechnology sectors, while Argentina experienced particularly strong growth in the Food & Beverage industry.

Watson-Marlow's adjusted operating profit was ahead 14% at £45.0 million, consisting of 11% organic growth supplemented by a 3% boost from currency movements. The adjusted operating profit margin expanded 50 bps to 31.6% at reported rates, with the organic operating profit margin ahead by 10 bps.

Watson-Marlow's statutory operating profit increased from £35.6 million in the first half of 2018 to £40.2 million, due to the factors outlined above, plus an additional £1.0 million increase in the amortisation of acquisition-related intangible assets.

Strategy update

Watson-Marlow continued to broaden its global footprint and in 2019 three new operating companies were established and began trading: Watson-Marlow Philippines, Watson-Marlow Colombia and Watson-Marlow Iberia (located in Spain), and a direct sales presence was established in Portugal.



On an organic basis sales increased by 11% and a small currency tailwind boosted sales giving reported sales of £142.4 million, a 13% increase over the same period in the prior year."

A number of new products were launched to market (as outlined in the Strategic implementation section).

During the first half of the year, we commenced the construction of Aflex Hose's new, purpose-built 16,200m² manufacturing facility in Yorkshire, which will consolidate Aflex's four existing factories into one, at a net capital cost of £18 million.

In addition to investing in the business and developing our people, a central element of our long-term strategy for growth is ensuring that we have a pipeline of talent, our employees of the future. Important to this is breaking down gender stereotypes to encourage women to consider a career in engineering. To this end, in June, Watson-Marlow hosted Spirax-Sarco Engineering plc's annual International Women in Engineering Day celebrations. Over 60 school students participated in a day of activities. The company then hosted a networking event, with four inspirational speakers, including Non-Executive Director, Jane Kingston, followed by a panel discussion.

Outlook

The short-term economic outlook is expected to be relatively similar to the first half of the year with positive but lower industrial production growth than in the prior year. The market drivers in Watson-Marlow's key industries, particularly Pharmaceutical & Biotechnology, Food & Beverage and Environmental, remain robust, but general industry and OEM's may be affected by any market slowdown. Given the strong start to the year our expectation is for high single-digit organic growth for the year with an adjusted operating profit margin similar to that seen in the prior year.

Principal risks

Principal risks and uncertainties

The Group has processes in place to identify, evaluate and mitigate the principal risks that could have an adverse impact on the Group's performance. The principal risks, together with a brief description of why they are relevant, are set out below. Details of how they link with the Group's strategy and how mitigation is managed are included in the Group's 2018 Annual Report on pages 30 to 33. The Risk Management Committee has reviewed these risks and concluded that they represent the current position and remain relevant for the second half of the financial year.

A summary of the Group's key risks and uncertainties is:

- Economic and political instability

Economic and political instability, including the impact of regime changes, creates risks for our locally-based direct operations.

- Significant exchange rate movements

The Group reports its results and pays dividends in sterling, while its operating and manufacturing companies trade in local currency. The nature of the Group's business necessarily results in exposure to exchange rate volatility.

- Cybersecurity

A significant cybersecurity breach could result in a loss of important information and prevent the Group operating at maximum efficiency.

- Failure to realise acquisition objectives

Failure to realise acquisition objectives would impact the financial performance of the Group.

Loss of manufacturing output at any Group factory

Loss of manufacturing output at any important plant risks serious disruption to sales operations.

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

The Group is subject to many different laws and regulations, including the General Data Protection Regulation and anti-bribery and corruption legislation. Breaching laws or regulations could have serious consequences for the Group.

Loss of critical supplier

The loss of a critical supplier could lead to logistical difficulties and delayed deliveries.

- Health, safety and environmental risks

A major health, safety or environmental incident could cause total or partial closure of a manufacturing facility. As a premium provider of safety-critical products, a breach of these requirements would also have reputational consequences for the Group.

Uncertainty surrounding Brexit continues, with a "no deal" exit from the European Union remaining a possibility. The Group's Risk Management Committee continues to monitor the situation carefully and the plans put into place, as outlined in the 2018 Annual Report on page 29, are still relevant and applicable as we go into the second half of 2019.

The Group has prepared for the application of tariffs for goods moving in and out of Europe, as disclosed within the Governance Report in the 2018 Annual Report, on page 69. We have also put in place 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. Assuming an orderly Brexit we would expect inventory levels to return to normal levels by the end of the year. The additional cost to the Income Statement of building and maintaining these inventories is expected to be in the region of £0.8 million in 2019, while the adverse impact on global inventory levels during the first half of 2019 was £5.0 million.

We have modelled potential tariff impacts and believe that these would be more than compensated for by a devaluation in sterling following a "no deal" Brexit.

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. The Board, the Group Executive Committee and the Risk Management Committee continue to monitor on-going Brexit negotiations and will apply or adjust the Group's planned response accordingly.

Financial Statements

Independent Review Report

to Spirax-Sarco Engineering plc

We have been engaged by the Company to review the condensed set of Financial Statements in the Half Year Financial Report for the six months ended 30th June 2019, which comprises the Condensed Consolidated Statement of Financial Position, the Condensed Consolidated Income Statement, the Condensed Consolidated Statement of Comprehensive Income, the Condensed Consolidated Statement of Changes in Equity, the Condensed Consolidated Statement of Cash Flows and related Notes 1 to 14. We have read the other information contained in the Half Year Financial Report and considered whether it contains any apparent misstatements or material inconsistencies with the information in the condensed set of Financial Statements.

This Report is made solely to the Company in accordance with International Standard on Review Engagements (UK and Ireland) 2410 "Review of Interim Financial Information Performed by the Independent Auditor of the Entity" issued by the Financial Reporting Council. Our work has been undertaken so that we might state to the Company those matters we are required to state to it in an Independent Review Report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company, for our review work, for this Report, or for the conclusions we have formed.

Directors' responsibilities

The Half Year Financial Report is the responsibility of, and has been approved by, the Directors. The Directors are responsible for preparing the Half Year Financial Report in accordance with the Disclosure Guidance and Transparency Rules of the United Kingdom's Financial Conduct Authority.

As disclosed in Note 1, the annual Financial Statements of the Group are prepared in accordance with IFRS as adopted by the European Union. The condensed set of Financial Statements included in this Half Year Financial Report has been prepared in accordance with International Accounting Standard 34 (Interim Financial Reporting) as adopted by the European Union.

Our responsibility

Our responsibility is to express to the Company a conclusion on the condensed set of Financial Statements in the Half Year Financial Report based on our review.

Scope of review

We conducted our review in accordance with International Standard on Review Engagements (UK and Ireland) 2410 "Review of Interim Financial Information Performed by the Independent Auditor of the Entity" issued by the Financial Reporting Council for use in the United Kingdom. A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK) and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the condensed set of Financial Statements in the Half Year Financial Report for the six months ended 30th June 2019 is not prepared, in all material respects, in accordance with International Accounting Standard 34 as adopted by the European Union and the Disclosure Guidance and Transparency Rules of the United Kingdom's Financial Conduct Authority.

Deloitte LLP

Statutory Auditor, London, United Kingdom

6th August 2019

Financial Statements

Condensed Consolidated Statement of Financial Position at 30th June 2019

		30th June 2019	30th June 31 2018	2018
N	otes	£m (unaudited)	£m (unaudited)	£m (audited)
Assets			'	
Non-current assets				
Property, plant and equipment		238.6	225.8	230.8
Right-of-use assets	1	38.4	_	_
Goodwill		440.5	359.2	368.0
Other intangible assets		329.8	280.2	277.2
Prepayments		6.2	5.9	6.2
Deferred tax assets		44.3	34.3	41.3
		1,097.8	905.4	923.5
Current assets				
Inventories		193.9	157.4	160.6
Trade receivables		256.1	226.4	245.1
Other current assets		36.4	35.5	32.9
Taxation recoverable		4.3	9.4	4.6
Cash and cash equivalents	9	166.2	176.3	187.1
·		656.9	605.0	630.3
Total assets		1,754.7	1,510.4	1,553.8
Equity and liabilities				
Current liabilities				
Trade and other payables		161.3	135.7	167.0
Provisions		4.0	5.9	5.0
Bank overdrafts	9	0.4	1.7	0.4
Short-term borrowings	9	41.3	19.7	15.7
Current portion of long-term borrowings	9	56.1	39.1	41.5
Short-term lease liabilities	1/9	11.4	_	_
Current tax payable		24.4	21.3	23.7
		298.9	223.4	253.3
Net current assets		358.0	381.6	377.0
Non-current liabilities				
Long-term borrowings	9	459.9	488.8	365.3
Long-term lease liabilities	1/9	29.9	_	_
Deferred tax liabilities		91.9	73.3	76.8
Post-retirement benefits	8	89.3	75.0	85.1
Provisions		3.7	3.1	3.7
Long-term payables		3.2	2.5	2.7
		677.9	642.7	533.6
Total liabilities		976.8	866.1	786.9
Net assets		777.9	644.3	766.9
Equity				
Share capital		19.8	19.8	19.8
Share premium account		78.6	75.6	77.8
Other reserves		19.3	8.6	22.2
Retained earnings		659.3	539.3	646.0
Equity shareholders' funds		777.0	643.3	765.8
		0.9	1.0	1.1
Non-controlling interest		U.J	1.0	1.1
Non-controlling interest Total equity		777.9	644.3	766.9

Condensed Consolidated Income Statement

for the period ended 30th June 2019

		Six mon	Six months to 30th June 2019			ths to 30th Jui	ne 2018	Year ended 31st December 2018		
		Adjusted £m	Adjustments £m	Total £m	Adjusted £m	Adjustments £m	Total £m	Adjusted £m	Adjustments £m	Total £m
	Notes	(unaudited)	(unaudited)			(unaudited)			(audited)	
Revenue	3	591.2	-	591.2	547.6	_	547.6	1,553.3	-	1,153.3
Operating costs		(462.0)	(16.5)	(478.5)	(421.9)	(13.8)	(435.7)	(888.4)	34.2	(854.2)
Operating profit	2/3	129.2	(16.5)	112.7	125.7	(13.8)	111.9	264.9	34.2	299.1
Financial expenses		(5.3)	-	(5.3)	(5.7)	_	(5.7)	(11.4)	_	(11.4)
Financial income		0.7	_	0.7	0.6	_	0.6	1.1	_	1.1
Net financing expense	4	(4.6)	_	(4.6)	(5.1)	_	(5.1)	(10.3)	_	(10.3)
Profit before taxation		124.6	(16.5)	108.1	120.6	(13.8)	106.8	254.6	34.2	288.8
Taxation	5	(36.1)	3.6	(32.5)	(32.7)	3.4	(29.3)	(70.4)	5.0	(65.4)
Profit for the period		88.5	(12.9)	75.6	87.9	(10.4)	77.5	184.2	39.2	223.4
Attributable to:										
Equity shareholders		88.4	(12.9)	75.5	87.8	(10.4)	77.4	183.9	39.2	223.1
Non-controlling interest		0.1	_	0.1	0.1	_	0.1	0.3	_	0.3
Profit for the period		88.5	(12.9)	75.6	87.9	(10.4)	77.5	184.2	39.2	223.4
Earnings per share	2/6									
Basic earnings per share)	120.0p		102.4p	119.2p		105.1p	250.0p		303.1p
Diluted earnings per share	е	119.7p		102.2p	118.9p		104.8p	249.1p		302.0p
Dividends	7									
Dividends per share				32.0p			29.0p			100.0p
Dividends paid										
(per share)				71.0p			62.0p			91.0p

Adjusted figures exclude certain items, as detailed in Notes 2 and 3. All amounts relate to continuing operations.

The Notes on pages 26 to 41 form an integral part of the Interim Condensed Consolidated Financial Statements.

Financial Statements

Condensed Consolidated Statement of Comprehensive Income for the period ended 30th June 2019

	Six months to 30th June 2019 £m (unaudited)	Six months to 30th June 2018 £m (unaudited)	Year ended 31st December 2018 £m (audited)
Profit for the period	75.6	77.5	223.4
Items that will not be reclassified to profit or loss:			
Remeasurement (loss)/gain on post-retirement benefits	(5.5)	11.4	(5.9)
Deferred tax on remeasurement loss/(gain) on post-retirement benefits	1.7	(2.1)	1.2
	(3.8)	9.3	(4.7)
Items that may be reclassified subsequently to profit or loss:			
Exchange (loss)/gain on translation of foreign operations and net investment hedges	(1.8)	(9.1)	4.2
Loss on cash flow hedges net of tax	(1.2)	(0.4)	(0.1)
	(3.0)	(9.5)	4.1
Total comprehensive income for the period	68.8	77.3	222.8
Attributable to:			
Equity shareholders	68.7	77.2	222.5
Non-controlling interest	0.1	0.1	0.3
Total comprehensive income for the period	68.8	77.3	222.8

Condensed Consolidated Statement of Changes in Equity

for the period ended 30th June 2019 (unaudited)

	Share capital £m	Share premium account £m	Other reserves £m	Retained earnings £m	Equity shareholders' funds	Non- controlling interest £m	Total equity £m
Balance at 1st January 2019	19.8	77.8	22.2	646.0	765.8	1.1	766.9
Adoption of IFRS 16 (Note 1)	_	_	_	(2.9)	(2.9)	_	(2.9)
Balance at 1st January 2019 (restated)	19.8	77.8	22.2	643.1	762.9	1.1	764.0
Profit for the period	_	_	_	75.5	75.5	0.1	75.6
Other comprehensive (expense)/income: Exchange loss on translation of foreign			(4.0)		(4.0)		(4.0)
operations and net investment hedges Remeasurement loss on post-retirement benefits	_	_	(1.8)	(5.5)	(1.8)	_	(1.8) (5.5)
Deferred tax on remeasurement loss on post-retirement benefits	_	_	_	1.7	1.7	-	1.7
Loss on cash flow hedges reserve		_	(1.2)	_	(1.2)	_	(1.2)
Total other comprehensive expense for the period	_	_	(3.0)	(3.8)	(6.8)	-	(6.8)
Total comprehensive (expense)/ income for the period	-	_	(3.0)	71.7	68.7	0.1	68.8
Contributions by and distributions to owners of the Company:							
Dividends paid	_	_	_	(52.3)	(52.3)	(0.3)	(52.6)
Equity-settled share plans net of tax	-	_	_	(1.8)	(1.8)	_	(1.8)
Issue of share capital	-	0.8	_	-	0.8	_	0.8
Employee Benefit Trust shares	-	_	(1.3)	-	(1.3)	_	(1.3)
Transfer between reserves	_	_	1.4	(1.4)	_	_	_
Balance at 30th June 2019	19.8	78.6	19.3	659.3	777.0	0.9	777.9

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.

Condensed Consolidated Statement of Changes in Equity

for the period ended 30th June 2018 (unaudited)

	Share capital £m	Share premium account £m	Other reserves £m	Retained earnings £m	Equity shareholders' funds £m	Non- controlling interest £m	Total equity £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 period	_	_	_	77.4	77.4	0.1	77.5
Other comprehensive (expense)/income: Exchange loss on translation of foreign							
operations and net investment hedges Remeasurement gain on	_	_	(9.1)	_	(9.1)	_	(9.1)
post-retirement benefits Deferred tax on remeasurement gain	_	_	_	11.4	11.4	_	11.4
on post-retirement benefits	_	_	_	(2.1)	(2.1)	_	(2.1)
Loss on cash flow hedges reserve			(0.4)	_	(0.4)		(0.4)
Total other comprehensive (expense)/ income for the period	_	_	(9.5)	9.3	(0.2)	_	(0.2)
Total comprehensive (expense)/income for the period	_	_	(9.5)	86.7	77.2	0.1	77.3
Contributions by and distributions to owners of the Company:							
Dividends paid	_	_	_	(45.7)	(45.7)	(0.2)	(45.9)
Equity-settled share plans net of tax	_	_	_	3.4	3.4	-	3.4
Issue of share capital	_	0.5	_	_	0.5	_	0.5
Employee Benefit Trust shares	_	_	(1.2)	_	(1.2)	_	(1.2)
Balance at 30th June 2018	19.8	75.6	8.6	539.3	643.3	1.0	644.3

Condensed Consolidated Statement of Changes in Equity

for the year ended 31st December 2018 (audited)

3			`	,			
	Share capital £m	Share premium account £m	Other reserves £m	Retained earnings £m	Equity shareholders' funds £m	Non- controlling interest £m	Total equity £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: Exchange gain on translation of foreign operations 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
Loss on cash flow hedges reserve	_	_	(0.1)	_	(0.1)		(0.1)
Total other comprehensive (expense)/income 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

Financial Statements

Condensed Consolidated Statement of Cash Flows

for the period ended 30th June 2019

	Six months to 30th June 2019 £m	30th June 2018 £m	Year ended 31st December 2018 £m
Cash flows from operating activities	s (unaudited)	(unaudited)	(audited)
Profit before taxation	108.1	106.8	288.8
Depreciation, amortisation and impairment	35.3		58.1
Profit on disposal of fixed assets	(0.5		
Profit on disposal of subsidiary	-	(0.0)	(47.4)
Reversal of acquisition related fair value adjustments to inventory	1.0	_	(17.1)
Cash payments to the pension schemes greater than the charge			
to operating profit	(2.4	(0.4)	(10.1)
Equity settled share plans	3.2	2.9	5.7
Net finance expense	4.6	5.1	10.3
Operating cash flow before changes in working capital and provisions	149.3	143.2	296.8
Change in trade and other receivables	(3.2	(0.3)	(16.0)
Change in inventories	(17.1	(15.7)	(15.5)
Change in provisions	(0.1) (O.1)	0.8
Change in trade and other payables	(19.8	(18.0)	8.1
Cash generated from operations	109.1	109.1	274.2
Interest paid	(3.9	(4.7)	(7.7)
Income taxes paid	(36.2	(28.9)	(61.6)
Net cash from operating activities	69.0	75.5	204.9
Cash flows from investing activities			
Purchase of property, plant and equipment	(14.6	(14.1)	(33.5)
Proceeds from sale of property, plant and equipment	1.8	3.1	11.9
Purchase of software and other intangibles	(3.0	(3.5)	(8.3)
Development expenditure capitalised	(3.5	(1.3)	(1.6)
Disposal of subsidiary	-	_	51.5
Acquisition of businesses net of cash acquired	3 (117.6	(2.9)	(2.7)
Interest received	0.7	0.6	1.1
Net cash from/(used in) investing activities	(136.2	(18.1)	18.4
Cash flows from financing activities			
Proceeds from issue of share capital	0.8	0.5	1.8
Employee Benefit Trust share purchase	(8.2	(6.7)	(6.7)
Repaid borrowings	9 (49.6	(46.3)	(111.6)
New borrowings	9 165.1	69.5	0.1
Repayment of lease liabilities	9 (5.3) (O.1)	_
Dividends paid (including minorities)	(52.6	(45.9)	(67.3)
Net cash from/(used in) financing activities	50.2	(29.0)	(183.7)
Net change in cash and cash equivalents	9 (17.0	28.4	39.6
Net cash and cash equivalents at beginning of period	9 186.7	151.6	151.6
Exchange movement	9 (3.9	(5.4)	(4.5)
Net cash and cash equivalents at end of period	9 165.8	174.6	186.7
Borrowings	9 (557.3	(547.6)	(422.5)
Net debt at the end of the period	9 (391.5	(373.0)	235.8

Notes to the Consolidated Financial Statements

1 Basis of preparation

Spirax-Sarco Engineering plc is a company domiciled in the UK. The Condensed Consolidated Interim Financial Statements of Spirax-Sarco Engineering plc and its subsidiaries (the Group) for the six months ended 30th June 2019 have been prepared in accordance with IAS 34 (Interim Financial Reporting), as adopted by the European Union. The accounting policies applied are consistent with those set out in the 2018 Spirax-Sarco Engineering plc Annual Report except for IFRS 16 (Leases) and IFRIC 23 (Uncertainty Over Income Tax Treatments), which have been adopted in the current year.

These Condensed Consolidated Interim Financial Statements do not include all the information required for full annual statements and should be read in conjunction with the 2018 Annual Report. The comparative figures for the year ended 31st December 2018 do not constitute the Group's statutory Financial Statements for that financial year as defined in Section 434 of the Companies Act 2006. The Financial Statements of the Group for the year ended 31st December 2018 were prepared in accordance with International Financial Reporting Standards adopted by the European Union. The statutory Consolidated Financial Statements for Spirax-Sarco Engineering plc in respect of the year ended 31st December 2018 have been reported on by the Company's auditor and delivered to the registrar of companies. The report of the auditor was (i) unqualified, (ii) did not include a reference to any matters to which the auditor 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.

The Consolidated Financial Statements of the Group in respect of the year ended 31st December 2018 are available upon request from Mr A. J. Robson, General Counsel and Company Secretary, Charlton House, Cheltenham, Gloucestershire, GL53 8ER, United Kingdom or on www.spiraxsarcoengineering.com.

The Condensed Consolidated Interim Financial Statements for the six months ended 30th June 2019, which have been reviewed by the auditor in accordance with International Standard on Review Engagements (UK and Ireland) 2410 "Review of Interim Financial Information Performed by the Independent Auditor of the Entity" issued by the Financial Reporting Council, were authorised by the Board on 6th August 2019.

The Half Year Report and Interim Financial Statements (Half Year Report) has been prepared solely to provide additional information to shareholders as a body to assess the Group's strategies and the potential for those strategies to succeed. This Half Year Report should not be relied upon by any other party or for any other purpose.

Going concern

Having made enquiries and reviewed the Group's plans and available financial facilities, the Board has a reasonable expectation that the Group has adequate resources to continue its operational existence for at least 12 months from the date of signing the 2019 Half Year Report. For this reason, it continues to adopt the going concern basis in preparing the Condensed Consolidated Interim Financial Statements.

New standards adopted in the current year IFRS 16 (Leases)

The Group adopted IFRS 16 (Leases) using the modified retrospective 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.

The exemptions taken by the Group on transition are detailed below. For any new leases entered into after 1st January 2019, the lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by using the incremental borrowing rate for the related geographical location. The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability and by reducing the carrying amount to reflect the lease payments made.

The right-of-use assets comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement date and any initial direct costs. They are subsequently measured at cost less accumulated depreciation and impairment losses.

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.

Notes to the Consolidated Financial Statements continued

1 Basis of preparation continued

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 rightof-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 £37.1m. The vast majority of this value (£28.0m) results from leased property where the Group leases a number of office and warehouse sites in a number of geographical locations. The remaining £9.1m 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 £40.0m, split between £10.2m relating to amounts due within 12 months from 1st January 2019 and £29.8m relating to amounts due after 1st January 2020.
- As a result of the Group using the modified-retrospective approach, all property lease assets were valued as if IFRS 16 had always applied since the commencement of those leases. This led to a difference between the right-of-use asset capitalised and the corresponding lease liability. The difference between these values of £2.9m has been recognised as an adjustment to opening retained earnings.

Income Statement

- a) The impact on the Income Statement for the six months to 30th June 2019 is an increase in operating profit of £0.6m compared to the operating profit had IAS 17 continued to apply. This is made up of a reduction in operating lease rentals of £5.9m offset by a depreciation charge of £5.3m. Once taking into account an additional £0.6m of lease liability interest, the overall impact on profit before tax in the six months to 30th June 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 £0.9m.

Statement of Cash Flows

- a) Net cash inflow from operating activities for the six months to 30th June 2019 increased by £5.3m as a result of the principle payments made on lease liabilities being reclassified from cash generated from operations to financing activities.
- b) Net cash outflow from financing activities increased by £5.3m as a result of the above.
- c) There is no impact on the net change in cash and cash equivalents as a result of the implementation 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 International Financial Reporting Interpretations Committee (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 the 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 of adoption of the guidance in IFRIC 23 is no change in the provision at 1st January 2019.

New standards and interpretations not yet adopted

Certain new standards, amendments to standards and interpretations are not yet effective for the period ended 30th June 2019 and have, therefore, not been applied in preparing these Condensed Consolidated Interim Financial Statements. These standards are not expected to have a material impact on the Group in the current or future reporting periods.

The economy in Argentina remains subject to high inflation. At 30th June 2019 we have concluded that applying IAS 29 (Financial Reporting in Hyperinflationary Economies) is not required as the impact of adopting is not material. We will continue to assess the position going forward.

1 Basis of preparation continued

Significant accounting judgements and estimates

The preparation of Interim Financial Statements, in conformity with adopted IFRS, requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amount of assets and liabilities, income and expense. Actual results may differ from these estimates. In preparing these Condensed Consolidated Interim Financial Statements, the significant judgements made by management in applying the Group's accounting policies and the key sources of estimation uncertainty were the same as those that applied to the Consolidated Financial Statements for the year ended 31st December 2018.

Cautionary statements

This Half Year Report contains forward-looking statements. These have been made by the Directors in good faith based on the information available to them up to the time of their approval of this Report. The Directors can give no assurance that these expectations will prove to have been correct. Due to the inherent uncertainties, including both economic and business risk factors underlying such forward-looking information, actual results may differ materially from those expressed or implied by these forwardlooking statements. The Directors undertake no obligation to update any forward-looking statements, whether as a result of new information, future events, or otherwise.

Responsibility statement

The Directors confirm that to the best of their knowledge:

- This Condensed Consolidated set of Interim Financial Statements has been prepared in accordance with IAS 34 (Interim Financial Reporting), as adopted by the European Union;
- The interim management report includes a fair review of the information required by:
 - a) DTR 4.2.7R of the Disclosure and Transparency Rules, being an indication of important events that have occurred during the first six months of the financial year and their impact on the Condensed Consolidated Financial Statements, and a description of the principal risks and uncertainties for the remaining six months of the financial year.
 - b) DTR 4.2.8R of the Disclosure and Transparency Rules, being related party transactions that have taken place in the first six months of the current financial year that have materially affected the financial position or performance of the entity during that period, and any changes in the related party transactions described in the last Annual Report that could do so.

The Directors of Spirax-Sarco Engineering plc on 6th August 2019 are the same as those listed in the 2018 Annual Report on pages 72 and 73 with the exception of:

- Caroline Johnstone, who joined the Board as an Independent Non-Executive Director on 5th March 2019;
- Clive Watson, who stepped down from the Board at the conclusion of the AGM on 15th May 2019;
- Kevin Thompson, who joined the Board as Independent Non-Executive Director and Chair of the Audit Committee on 15th May 2019; and
- Dr Trudy Schoolenberg, who was promoted to the position of Senior Independent Director, following Clive's departure.

N. J. Anderson

Group Chief Executive 6th August 2019

K. J. Boyd

Chief Financial Officer 6th August 2019

On behalf of the Board

Notes to the Consolidated Financial Statements continued

2 Adjusted performance measures

The Group reports under International Financial Reporting Standards (IFRS) and also uses adjusted performance measures where the Board believes 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 adjusted performance measures also form a meaningful element of Executive Directors' annual bonuses. A definition of the adjusted performance measures 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 acquisition and disposal;
- reversal of acquisition-related fair value adjustments to inventory;
- changes in deferred consideration payable on acquisitions;
- profit or loss on disposal of subsidiary;
- significant restructuring costs;
- 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.

	Six months to 30th June 2019 £m	Six months to 30th June 2018 £m	Year ended 31st December 2018 £m
Operating profit as reported under IFRS	112.7	111.9	299.1
Amortisation of acquisition-related intangible assets	13.0	13.5	25.2
Acquisition-related items	2.5	0.3	(0.2)
Reversal of acquisition-related fair value adjustments to inventory	1.0	_	_
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	129.2	125.7	264.9

Adjusted earnings per share

	Six months to 30th June	Six months to	Year ended 31st December
	2019	2018	2018
Profit for the period attributable to equity holders as reported under IFRS (£m)	75.5	77.4	223.1
Items excluded from adjusted operating profit disclosed above (£m)	16.5	13.8	(34.2)
Tax effects on adjusted items (£m)	(3.6)	(3.4)	(5.0)
Adjusted profit for the period attributable to equity holders (£m)	88.4	87.8	183.9
Weighted average shares in issue (million)	73.7	73.6	73.6
Basic adjusted earnings per share	120.0p	119.2p	250.0p
Diluted weighted average shares in issue (million)	73.8	73.8	73.8
Diluted adjusted earnings per share	119.7p	118.9p	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 in issue.

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

2 Adjusted performance measures continued

Adjusted cash flow

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

	Six months to 30th June 2019 £m	Six months to 30th June 2018 £m	Year ended 31st December 2018 £m
Net cash from operating activities as reported under IFRS	69.0	75.5	204.9
Acquisition and disposal costs	2.5	0.3	0.2
Capital expenditure excluding acquired intangibles from acquisitions	(19.3)	(15.8)	(31.5)
Movement in provisions	(0.1)	0.1	(0.8)
Tax paid	36.2	28.9	61.6
Interest paid	3.9	4.7	7.7
Adjusted cash from operations	92.2	93.7	242.1

Adjusted cash conversion in the first half was 71% (2018: 75%). Cash conversion is calculated as adjusted net cash from operations divided by adjusted operating profit. The adjusted cash flow is included in the Review of Operations on page 8.

Capital employed

This is an important non-statutory measure which the Board uses to help it effectively monitor the performance of the Group. More information on Capital employed can be found in the Review of Operations on page 7.

An analysis of the components is as follows:

	30th June 2019 £m	30th June 2018 £m	31st December 2018 £m
Property, plant and equipment	238.6	225.8	230.8
Non-current prepayments	6.2	5.9	6.2
Inventories	193.9	157.4	160.6
Trade receivables	256.1	226.4	245.1
Other current assets	36.4	35.5	32.9
Tax recoverable	4.3	9.4	4.6
Trade, other payables and current provisions	(165.3)	(141.6)	(172.0)
Current tax payable	(24.4)	(21.3)	(23.7)
IFRS 16 right-of-use assets less liabilities	(2.9)	_	_
Capital employed	542.9	497.5	484.5

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

	30th June 2019 £m	30th June 2018 £m	31st December 2018 £m
Capital employed	542.9	497.5	484.5
Goodwill and other intangible assets	770.3	639.4	645.2
Post-retirement benefits	(89.3)	(75.0)	(85.1)
Net deferred tax	(47.6)	(39.0)	(35.5)
Non-current provisions and long-term payables	(6.9)	(5.6)	(6.4)
Net debt	(391.5)	(373.0)	(235.8)
Net assets as reported under IFRS	777.9	644.3	766.9

Notes to the Consolidated Financial Statements continued

2 Adjusted performance measures continued

Net debt including IFRS 16

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 9. Net debt excludes IFRS 16 lease liabilities to enable comparability with prior years.

	30th June 2019	30th June 2018	31st December 2018
	£m	£m	£m
Net debt	(391.5)	(373.0)	(235.8)
IFRS 16 lease liabilities	(41.3)	-	_
Net debt including IFRS 16	(432.8)	(373.0)	(235.8)

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 to adjusted operating profit. When calculated at a half year it is based on the results for the last 12 months all translated at the exchange rate used for the half year period.

Net debt to 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 EBITDA.

Organic measures

As we are a multi-national Group, with companies that trade in a diverse range of currencies and because we regularly acquire and sometimes dispose of companies, we also refer to organic performance measures throughout the half year results. Organic measures are at constant currency and exclude contributions from acquisitions or disposals. The Board believes 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.

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

	Six months to				Six months to		
	30th June			Acquisitions	30th June		
	2018	Exchange	Organic	and disposals	2019	Organic	Reported
Revenue	£547.6m	£2.4m	£42.4m	(£1.2m)	£591.2m	+8%	+8%
Adjusted operating profit	£125.7m	(£0.8m)	£5.4m	(£1.1m)	£129.2m	+4%	+3%
Adjusted operating profit margin	23.0%				21.9%	-70 bps	-110 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.

Analysis by location of operation

Six months to 30th June 2019	Gross Int revenue £m	er-segment revenue £m	Revenue £m	Total operating profit £m	Adjusted operating profit £m	Adjusted operating profit margin
Europe, Middle East & Africa	190.1	(23.5)	166.6	32.4	34.3	20.6%
Asia Pacific	120.1	(3.3)	116.8	33.6	33.6	28.8%
Americas	86.3	(4.0)	82.3	15.1	16.0	19.4%
Steam Specialties	396.5	(30.8)	365.7	81.1	83.9	22.9%
Chromalox	83.1	-	83.1	1.7	8.1	9.7%
Watson-Marlow	142.4	_	142.4	40.2	45.0	31.6%
Corporate expenses				(10.3)	(7.8)	
	622.0	(30.8)	591.2	112.7	129.2	21.9%
Intra Group	(30.8)	30.8				
Total	591.2	_	591.2	112.7	129.2	21.9%
Net finance expense				(4.6)	(4.6)	
Profit before taxation				108.1	124.6	

	Gross Int	er-segment		Total operating	Adjusted operating	Adjusted operating profit
Six months to 30th June 2018	revenue £m	revenue £m	Revenue £m	profit £m	profit £m	margin %
Europe, Middle East & Africa	192.1	(23.0)	169.1	33.3	35.8	21.2%
Asia Pacific	107.3	(2.6)	104.7	28.2	28.5	27.2%
Americas	78.9	(3.8)	75.1	16.3	17.2	22.9%
Steam Specialties	378.3	(29.4)	348.9	77.8	81.5	23.4%
Chromalox	72.1	_	72.1	4.6	10.6	14.7%
Watson-Marlow	126.6	_	126.6	35.6	39.4	31.1%
Corporate expenses				(6.1)	(5.8)	
	577.0	(29.4)	547.6	111.9	125.7	23.0%
Intra Group	(29.4)	29.4				
Total	547.6	_	547.6	111.9	125.7	23.0%
Net finance expense				(5.1)	(5.1)	
Profit before taxation				106.8	120.6	

Notes to the Consolidated Financial Statements continued

3 Segmental reporting continued

				Total	Adjusted	Adjusted operating
Year ended 31st December 2018	Gross Inter-segment revenue revenue £m £m			operating profit £m	operating profit £m	profit margin %
Europe, Middle East & Africa	390.8	(46.4)	344.4	111.5	69.3	20.1%
Asia Pacific	238.2	(5.5)	232.7	69.9	63.9	27.5%
Americas	164.1	(7.7)	156.4	41.1	36.9	23.6%
Steam Specialties	793.1	(59.6)	733.5	222.5	170.1	23.2%
Chromalox	154.6	_	154.6	12.1	22.8	14.7%
Watson-Marlow	265.2	_	265.2	77.5	84.8	32.0%
Corporate expenses				(13.0)	(12.8)	
	1,212.9	(59.6)	1,153.3	299.1	264.9	23.0%
Intra Group	(59.6)	59.6				
Total	1,153.3	_	1,153.3	299.1	264.9	23.0%
Net finance expense				(10.3)	(10.3)	
Profit before taxation				288.8	254.6	

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

Six months to 30th June 2019	Amortisation of acquisition-related intangible assets	Acquisition- related items £m		Total £m
Europe, Middle East & Africa	(1.9)	-	_	(1.9)
Asia Pacific	_	-	_	_
Americas	(0.9)	_	_	(0.9)
Steam Specialties	(2.8)	_	_	(2.8)
Chromalox	(5.4)	_	(1.0)	(6.4)
Watson-Marlow	(4.8)	_	_	(4.8)
Corporate expenses	_	(2.5)	_	(2.5)
Total	(13.0)	(2.5)	(1.0)	(16.5)

Six months to 30th June 2018	Amortisation of acquisition- related intangible assets £m	Acquisition costs £m	Total £m
Europe, Middle East & Africa	(2.5)	_	(2.5)
Asia Pacific	(0.3)	_	(0.3)
Americas	(0.9)	_	(0.9)
Steam Specialties	(3.7)	_	(3.7)
Chromalox	(6.0)	_	(6.0)
Watson-Marlow	(3.8)	_	(3.8)
Corporate expenses	_	(0.3)	(0.3)
Total	(13.5)	(0.3)	(13.8)

3 Segmental reporting continued

Year ended 31st December 2018	Amortisation of acquisition-related intangible assets £m	Profit on disposal of subsidiary and property £m	Acquisition- Eq	qualising GMP for the UK pension plans £m	USA pension plan frozen to future accrual £m	Total £m
Europe, Middle East &						
Africa	(4.4)	47.4	(0.1)	(0.7)	_	42.2
Asia Pacific	(0.5)	6.5	_	_	_	6.0
Americas	(1.8)	_	_	_	6.0	4.2
Steam Specialties	(6.7)	53.9	(0.1)	(0.7)	6.0	52.4
Chromalox	(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

	Six months to 30th June 2019 £m	Six months to 30th June 2018 £m	Year ended 31st December 2018 £m
Europe, Middle East & Africa	(0.4)	(0.5)	(1.1)
Asia Pacific	(0.1)	(0.1)	_
Americas	(0.3)	(0.3)	(0.8)
Steam Specialties	(0.8)	(0.9)	(1.9)
Chromalox	(0.2)	_	_
Watson-Marlow	(0.2)	(0.1)	(0.1)
Corporate	(3.4)	(4.1)	(8.3)
Total net financing expense	(4.6)	(5.1)	(10.3)

Net assets

	30th June	2019	30th June	2018	31st December 2018		
	Assets £m	Liabilities £m	Assets £m	Liabilities £m	Assets £m	Liabilities £m	
Europe, Middle East & Africa	426.5	(107.5)	402.2	(100.4)	407.6	(115.0)	
Asia Pacific	168.1	(33.3)	161.1	(28.9)	162.2	(41.6)	
Americas	115.8	(42.7)	106.5	(33.8)	113.8	(39.3)	
Steam Specialties	710.4	(183.5)	669.8	(163.1)	683.6	(195.9)	
Chromalox	584.6	(36.7)	394.1	(23.6)	409.3	(28.9)	
Watson-Marlow	244.9	(41.3)	226.5	(35.5)	227.9	(38.7)	
	1,539.9	(261.5)	1,290.4	(222.2)	1,320.8	(263.5)	
Liabilities	(261.5)		(222.2)		(263.5)		
Net deferred tax	(47.6)		(39.0)		(35.5)		
Net current tax payable	(20.1)		(11.9)		(19.1)		
Lease liabilities	(41.3)		_		_		
Net debt	(391.5)		(373.0)		(235.8)		
Net assets	777.9		644.3		766.9		

Notes to the Consolidated Financial Statements continued

3 Segmental reporting continued

Capital additions, depreciation, amortisation and impairment

	Six months to 30th June 2019		Six months to 30th June 2018		Year ended 31st December 2018		
	Capital additions a £m	Depreciation, amortisation and impairment £m	Capital additions a £m	Depreciation, amortisation and impairment £m	Capital additions a £m	Depreciation, amortisation and impairment £m	
Europe, Middle East & Africa	15.9	10.0	9.2	8.0	18.5	17.1	
Asia Pacific	11.7	4.3	2.3	3.7	4.9	7.1	
Americas	7.4	3.5	1.8	3.0	4.5	5.9	
Steam Specialties	35.0	17.8	13.3	14.7	27.9	30.1	
Chromalox	79.3	7.9	2.3	7.5	6.0	13.6	
Watson-Marlow	19.0	9.6	11.6	6.9	18.6	14.4	
Total	133.3	35.3	27.2	29.1	52.5	58.1	

Capital additions include property, plant and equipment at 30th June 2019 of $\mathfrak{L}22.7$ m; at 30th June 2018 of $\mathfrak{L}14.3$ m; and at 31st December 2018 of $\mathfrak{L}33.5$ m; of which at 30th June 2019 $\mathfrak{L}8.1$ m; at 30th June 2018 $\mathfrak{L}0.2$ m and 31st December 2018 $\mathfrak{L}0.2$ m was from acquisitions in the period. Capital additions also include other intangible assets at 30th June 2019 of $\mathfrak{L}67.1$ m; at 30th June 2018 of $\mathfrak{L}12.9$ m; and at 31st December 2018 of $\mathfrak{L}19.0$ m of which at 30th June 2019 $\mathfrak{L}60.2$ m; at 30th June 2018 $\mathfrak{L}8.1$ m and at 31st December 2018 $\mathfrak{L}9.1$ m relates to acquired intangibles from acquisitions in the period. Right-of-use asset additions of $\mathfrak{L}43.5$ m occurred during the six month period to 30th June 2019, of which $\mathfrak{L}37.1$ m relates to additions on 1st January 2019 as a result of transition to IFRS 16, with the remaining $\mathfrak{L}6.4$ m relating to new leases entered into in 2019.

4 Net financing income and expense

	Six months to 30th June 2019 £m	Six months to 30th June 2018 £m	Year ended 31st December 2018 £m
Financial expenses:			
Bank and other borrowing interest payable	(3.5)	(4.7)	(9.4)
Interest expense on lease liabilities	(0.6)	_	_
Net interest on pension scheme liabilities	(1.2)	(1.0)	(2.0)
	(5.3)	(5.7)	(11.4)
Financial income:			
Bank interest receivable	0.7	0.6	1.1
Net financing expense	(4.6)	(5.1)	(10.3)
Net pension scheme financial expense	(1.2)	(1.0)	(2.0)
Interest expense on lease liabilities	(0.6)	_	_
Net bank interest	(2.8)	(4.1)	(8.3)
Net financing expense	(4.6)	(5.1)	(10.3)

5 Taxation

Taxation has been estimated at the rate expected to be incurred in the full year.

	Six month	s to 30th June	2019	Six months to 30th June 2018		Year ended 31st December 2018			
	Adjusted Adjusted £m	djustments £m	Total £m	Adjusted Ad	djustments £m	Total £m	Adjusted A	djustments £m	Total £m
UK corporation tax	2.7	_	2.7	3.2	_	3.2	8.0	_	8.0
Foreign tax	32.9	-	32.9	28.2	_	28.2	59.4	0.3	59.7
Deferred tax	0.5	(3.6)	(3.1)	1.3	(3.4)	(2.1)	3.0	(5.3)	(2.3)
Total taxation	36.1	(3.6)	32.5	32.7	(3.4)	29.3	70.4	(5.0)	(65.4)
Effective tax rate	29.0%	21.6%	30.1%	27.1%	24.6%	27.4%	27.6%	(14.8%)	22.6%

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 countries in which the Group operates.

5 Taxation continued

The Group's tax charge for the six months ended 30th June 2019 included a credit of £3.6m in relation to certain items (as disclosed in Note 2). The tax impacts of these items are:

- Amortisation of acquisition-related intangible assets (£3.3m credit); and
- Release of fair value adjustment on acquisition-related inventory (£0.3m credit)

On 2nd April 2019, the European Commission published its final decision that the UK Controlled Foreign Company (CFC) Finance Company Partial Exemption (FCPE) constituted State Aid in certain circumstances. In common with a number of other UK Groups, the Spirax-Sarco Group has benefited from the FCPE and the total benefit in the periods 2013 - 2018 is approximately £7.7m in tax excluding interest. On 12th June 2019 the UK Government submitted an application for annulment to the EU General Court appealing the decision of the European Commission and we are currently evaluating whether to also appeal the European Commission's decision. As a result, at present no provision has been recognised at 30th June 2019. However we acknowledge a cash payment in part or all of the amount due may be required in the next year which we would expect to be refundable in the event of a successful appeal.

During the period the Group adopted IFRIC 23 (Uncertainty Over Income Tax Treatments).

6 Earnings per share

	Six months to 30th June 2019	Six months to 30th June 2018	Year ended 31st December 2018
Profit attributable to equity shareholders (£m)	75.5	77.4	223.1
Weighted average shares in issue (million)	73.7	73.6	73.6
Dilution (million)	0.1	0.2	0.2
Diluted weighted average shares in issue (million)	73.8	73.8	73.8
Basic earnings per share	102.4p	105.1p	303.1p
Diluted earnings per share	102.2p	104.8p	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

	Six months to 30th June 2019 £m	Six months to 30th June 2018 £m	Year ended 31st December 2018 £m
Amounts paid in the period:			
Final dividend for the year ended 31st December 2018 of 71.0p (2017: 62.0p) per share Interim dividend for the year ended 31st December 2018 of 29.0p (2017: 25.5p)	52.3	45.7	45.7
per share	_	_	21.3
Total dividends paid	52.3	45.7	67.0
Amounts arising in respect of the period: Interim dividend for the year ending 31st December 2019 of 32.0p (2018: 29.0p) per share	23.6	21.4	21.3
Final dividend for the year ended 31st December 2018 of 71.0p (2017: 62.0p) per share	_	_	52.3
Total dividends arising	23.6	21.4	73.6

The interim dividend for the year ending 31st December 2019 was approved by the Board after 30th June 2019. It is therefore not included as a liability in these Interim Condensed Consolidated Financial Statements. No scrip alternative to the cash dividend is being offered in respect of the 2019 interim dividend.

Notes to the Consolidated Financial Statements continued

8 Post-retirement benefits

The Group is accounting for pension costs in accordance with IAS 19. The disclosures shown here are in respect of the Group's Defined Benefit Obligations. Other plans operated by the Group were either Defined Contribution plans or were deemed immaterial for the purposes of IAS 19 reporting. Full IAS 19 disclosure for the year ended 31st December 2018 is included in the Group's Annual Report.

The amounts recognised in the Consolidated Statement of Financial Position are as follows:

	30th June 2019 £m	30th June 2018 £m	31st December 2018 £m
Post-retirement benefits	(89.3)	(75.0)	
Related deferred tax asset	20.2	17.0	18.8
Net pension liability	(69.1)	(58.0)	(66.3)

9 Analysis of changes in net debt, including changes in liabilities arising from financing activities

	1st January 2019 £m	Cash flow £m	Acquired debt*	Exchange Rec	classification £m	30th June 2019 £m
Current portion of long-term borrowings	(41.5)					(56.1)
Non-current portion of long-term borrowings	(365.3)					(459.9)
Short-term borrowings	(15.7)					(41.3)
Total borrowings	(422.5)					(557.3)
Comprising:						
Borrowings	(422.2)	(115.4)	(18.2)	(1.5)	_	(557.3)
Finance leases	(0.3)	_	_	_	0.3	_
	(422.5)	(115.4)	(18.2)	(1.5)	0.3	(557.3)
Cash at bank	187.1	(17.0)	_	(3.9)	-	166.2
Bank overdrafts	(0.4)	_	_	_	_	(0.4)
Net cash and cash equivalents	186.7	(17.0)	-	(3.9)	-	165.8
Net debt	(235.8)	(132.4)	(18.2)	(5.4)	0.3	(391.5)
Lease liability (including IFRS 16 transition adjustment)	(40.0)	5.3	(6.4)	0.1	(0.3)	(41.3)
Net debt and lease liability	(275.8)	(127.1)	(24.6)	(5.3)	_	(432.8)

^{*} Debt acquired includes both debt acquired due to acquisition, and debt recognised on the balance sheet due to entry into new leases under IFRS 16.

The cash flow for borrowings included a repayment on the US dollar term loan of \$25.8m (£20.1m) during the period, £36.0m of new drawings against a revolving credit facility, €39.0m (£34.1m) of new drawings against a revolving credit facility and €57.0m (£49.9m) of new drawings on a euro term loan.

	1st January 2018 £m	Cash flow £m	Exchange £m	30th June 2018 £m
Current portion of long-term borrowings	(49.3)			(39.1)
Non-current portion of long-term borrowings	(455.9)			(488.8)
Short-term borrowings	(20.0)			(19.7)
Total borrowings	(525.2)			(547.6)
Comprising:				
Borrowings	(524.9)	(23.2)	0.7	(547.4)
Finance leases	(0.3)	0.1	_	(0.2)
	(525.2)	(23.1)	0.7	(547.6)
Cash at bank	152.1	29.6	(5.4)	176.3
Bank overdrafts	(0.5)	(1.2)	_	(1.7)
Net cash and cash equivalents	151.6	28.4	(5.4)	174.6
Net debt	(373.6)	5.3	(4.7)	(373.0)

9 Analysis of changes in net debt, including changes in liabilities arising from financing activities continued

	At 1st January 2018 £m	Cash flow £m	Acquired debt £m	Exchange £m	At 1st December 2018 £m
Current portion of long-term borrowings	(49.3)				(41.5)
Non-current portion of long-term borrowings	(455.9)				(365.3)
Short-term borrowings	(20.0)				(15.7)
Total borrowings	(525.2)				(422.5)
Comprising:					
Borrowings	(524.9)	111.5	_	(8.8)	(422.2)
Finance leases	(0.3)	_	_	-	(0.3)
	(525.2)	111.5	_	(8.8)	(422.5)
Cash at bank	152.1	39.8	(0.3)	(4.5)	187.1
Bank overdrafts	(0.5)	0.1	_	_	(0.4)
Net cash and cash equivalents	151.6	39.9	(0.3)	(4.5)	186.7
Net debt	(373.6)	151.4	(0.3)	(13.3)	(235.8)

10 Related party transactions

Transactions between the Company and its subsidiaries, which are related parties, have been eliminated on consolidation and are not disclosed in this Note. The subsidiaries now include Thermocoax Developpement and all its group companies (Thermocoax) which was acquired on the 13th May 2019. Full details of the Group's other related party relationships, transactions and balances are given in the Group's Financial Statements for the year ended 31st December 2018. There have been no material changes in these relationships in the period up to the end of this Report.

No related party transactions have taken place in the first half of 2019 that have materially affected the financial position or the performance of the Group during that period.

11 Fair value of financial instruments

The following table compares the carrying and fair values of the Group's financial assets and liabilities:

	30th June 2019		30th June 2018		31st December 2018	
	Carrying value £m	Fair value £m	Carrying value £m	Fair value £m	Carrying value £m	Fair value £m
Financial assets:						
Cash and cash equivalents	166.2	166.2	176.3	176.3	187.1	187.1
Trade, other receivables and contract assets	276.5	276.5	240.9	240.9	264.9	264.9
Total financial assets	442.7	442.7	417.2	417.2	452.0	452.0
Financial liabilities:						
Loans	557.3	557.3	547.4	547.4	422.2	422.0
Lease liabilities	41.3	41.3	0.2	0.2	0.3	0.3
Bank overdrafts	0.4	0.4	1.7	1.7	0.4	0.4
Trade payables	55.0	55.0	44.3	44.3	57.4	57.4
Other payables and contract liabilities	48.4	48.4	38.6	38.6	46.5	46.5
Total financial liabilities	702.4	702.4	632.2	632.2	526.8	526.8

There are no other assets or liabilities measured at fair value on a recurring or non-recurring basis for which fair value is disclosed.

Fair values of financial assets and financial liabilities

Fair values of financial assets and liabilities at 30th June 2019 are not materially different from book values due to their size, the fact that they were at short-term rates of interest or for borrowings at long-term rates of interest where the rate of interest is not materially different to the current market rate. Fair values have been assessed as follows:

Derivatives

Forward exchange contracts are marked to market by discounting the future contracted cash flows using readily available market data.

Interest-bearing loans and borrowings

Fair value is calculated based on discounted expected future principal and interest cash flows using a current market rate of interest.

Notes to the Consolidated Financial Statements continued

11 Fair value of financial instruments continued

Finance lease liabilities

The fair value is estimated as the present value of future cash flows, discounted at market interest rates for homogeneous lease agreements.

Trade and other receivables/payables

For receivables/payables with a remaining life of less than one year, the notional amount is deemed to reflect the fair value.

The Group uses forward currency contracts to manage its exposure to movements in foreign exchange rates. The forward contracts are designated as hedge instruments in a cash flow hedging relationship. At 30th June 2019 the Group had contracts outstanding to purchase £25.9m with US dollars, £0.6m with Danish krone, £40.7m with euros, £0.5m with Japanese yen, £3.9m with Korean won, £8.4m with Chinese renminbi, £3.3m with Singapore dollars, £0.2m with Swiss francs, €10.8m with US dollars, €3.0m with Korean won and €5.7m with Chinese renminbi. Derivative financial instruments are measured at fair value. The fair value at the end of the reporting period is a £1.1m liability (31st December 2018: £0.1m asset).

Financial instruments fair value disclosure

Fair value measurements are classified into three levels, depending on the degree to which the fair value is observable.

- Level 1 fair value measurements are those derived from quoted prices in active markets for identical assets and liabilities
- · Level 2 fair value measurements are those derived from other observable inputs for the asset or liability; and
- Level 3 fair value measurements are those derived from valuation techniques using inputs that are not based on observable market data.

We consider that the derivative financial instruments fall into Level 2. There have been no transfers between levels during the period.

12 Capital commitments

Capital expenditure contracted for but not provided for at 30th June 2019 was £24.0m (31st December 2018: £4.1m; 30th June 2018: £3.9m). All capital commitments related to property, plant and equipment.

13 Purchase of businesses

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

	Fair Value £m
Non-current assets:	2,511
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	15.9
Trade receivables	8.5
Other current assets	3.3
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
Deferred consideration	_
Total consideration	121.4
Reconciliation to acquisition of businesses in the Consolidated Statement of Cash Flows (page 25)	
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	0.8
Net cash outflow	117.6

Notes to the Consolidated Financial Statements continued

13 Purchase of businesses continued

- 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 £6m of revenue and £1m of adjusted pre-tax profit since acquisition. Had the acquisition been made on the 1st January 2019, the Thermocoax revenue and adjusted pre-tax profit would have been approximately £20m and £3m respectively.

Thermocoax is headquartered near Paris, France and has three 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 the Spirax-Sarco Engineering plc electrical process heating business in 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 £0.8m was paid during the year.
- 4. £2.5m of acquisition costs were incurred during the period. Of this £1.9m had been paid 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 no changes were required.

14 Exchange rates

Set out below is an additional disclosure (not required by IAS 34) that highlights movement in a selection of average exchange rates between Half Year 2018 and Half Year 2019.

	Average Half Year 2019	Average Half Year 2018	Change %
US dollar	1.29	1.37	+6%
Euro	1.14	1.14	0%
Renminbi	8.78	8.76	0%
Won	1,479	1,476	0%
Real	4.96	4.71	-5%
Argentine peso	53.28	29.84	-79%

A negative movement indicates a strengthening in sterling versus that currency. When sterling strengthens against other currencies in which the Group operates, the Group incurs a loss on translation of the financial results into sterling.

On a translation basis, sales increased by 0.4% and adjusted operating profit decreased by 1.8%, while transaction benefited profit, giving a total reduction to profit from currency movements of 0.6%.

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Important dates

Ordinary shares quoted ex-dividend 10th October 2019 Record date for interim dividend 11th October 2019 Interim dividend payable 8th November 2019



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