

# Renishaw plc

25th January 2018

Interim report 2018 - for the six months ended 31st December 2017

## Highlights

<u>Continuing operations</u>	<b>6 months to 31st December 2017</b>	Restated* 6 months to 31st December 2016	Year ended 30th June 2017
Revenue (£'000)	<b>279,458</b>	238,081	536,807
Adjusted <sup>1</sup> profit before tax (£'000)	<b>62,301</b>	36,139	109,079
Adjusted <sup>1</sup> earnings per share (pence)	<b>72.7</b>	41.4	132.4
Proposed dividend per share (pence)	<b>14.0</b>	12.5	52.0
Statutory profit before tax (£'000)	<b>66,158</b>	25,274	117,101
Statutory earnings per share (£'000)	<b>77.0</b>	29.4	141.3

\*Note 12, 'Restatement of previous first half year', details the adjustments made to previously disclosed interim figures.

<sup>1</sup>Note 13, 'Alternative performance measures', defines how adjusted profit before tax and earnings per share are calculated.

# Chairman's statement

I am pleased to report our group results for the six months to 31st December 2017. Unless otherwise stated these results are based on continuing operations.

## Highlights

- First half year revenue of £279.5m, compared with restated\* previous year of £238.1m.
- Revenue growth of 17%; 20% at constant exchange rates.
- First half year adjusted<sup>1</sup> profit before tax of £62.3m, compared with adjusted restated previous year of £36.1m, an increase of 73%.
- First half year statutory profit before tax of £66.2m, compared with restated £25.3m last year.

## Trading results

Continuing operations	First half 2018	First half 2017	Change	Change at constant exchange rates
Group revenue	£279.5m	£238.1m	+17%	+20%
Comprising:				
Far East	£125.2m	£109.1m	+15%	+21%
Americas	£58.8m	£48.5m	+21%	+26%
Europe	£71.8m	£59.4m	+21%	+18%
UK	£14.7m	£13.0m	+13%	
Other	£9.0m	£8.1m	+11%	

Revenue for the six months ended 31st December 2017 was £279.5m, compared with an adjusted restated £238.1m for the corresponding period last year, an increase of 17%, with an underlying growth of 20% at constant exchange rates. Geographically, there was revenue growth in all regions as illustrated above.

Adjusted profit before tax for the first half year increased by 73% to £62.3m, compared with an adjusted restated £36.1m last year. Statutory profit before tax for the first half year was £66.2m, compared with a restated £25.3m last year. Adjusted earnings per share were 72.7p, compared with 41.4p last year. Statutory earnings per share were 77.0p, compared with 29.4p last year.

## Metrology

Revenue from our metrology business for the first six months was £264.3m, compared with £224.6m last year. Adjusted operating profit was £63.2m, compared with £42.0m for the comparable period last year.

There has been growth in all metrology products lines, with particularly strong growth in our additive manufacturing and measurement and automation products lines.

During the first half of the year, our additive manufacturing products line introduced the RenAM 500Q four laser additive manufacturing system, InfiniAM Spectral software for AM process monitoring and InfiniAM Central software for remote monitoring of AM builds. The RenAM 500Q significantly improves the productivity of the most commonly used machine platform size. The machine tool products line launched an enhanced version of the NC4 non-contact tool setting system and the encoder products line launched the RESOLUTE™ FS (functional safety) encoder.

## Healthcare

Revenue from our healthcare business for the first six months was £15.2m, compared with £13.5m last year with an adjusted operating loss of £1.9m, compared with a loss of £6.0m for the comparable period last year.

We have experienced growth in our spectroscopy and neurological products lines. Revenue in the neurological products line has benefited from an increase in sales of devices for clinical trials.

We are expecting good growth in the second half of the financial year with a further reduction in losses anticipated.

## Continued investment for long-term growth

We continue our long-standing commitment to investment in research and development, and net engineering expenditure increased by 7% to £39.1m, compared with £36.4m last year.

Capital expenditure for the first half year was £16.1m. Expenditure on property totalled £2.4m, including the acquisition and refurbishment of a property for our R&D facility in Exeter. Expenditure on plant and equipment was £7.8m, and we continued to expand our manufacturing facilities, mainly in the UK, and continued to invest in our global IT and distribution infrastructure.

### **Working capital**

Net cash balances at 31st December 2017 were £69.1m, compared with £14.0m at 31st December 2016 and £51.9m at 30th June 2017.

During the first half of the year, certain forward contracts used for cash flow hedging, which did not qualify for hedge accounting under International Accounting Standard IAS39, have been restructured with the respective banks. Each agreement now contains a forward contract that qualifies for hedge accounting.

Inventory balances at 31st December 2017 were £99.1m, an increase of £11.4m compared with 30th June 2017. The increase arises due to increased trading levels and expected future demand, particularly in our additive manufacturing products line.

### **Directors and employees**

As announced yesterday, I will be handing over my role as Chief Executive to William Lee, currently Group Sales and Marketing Director, with effect from 1st February 2018. I will remain Executive Chairman with responsibility for group innovation and product strategy.

The workforce at the end of December 2017 was 4,584, an increase of 54 since June 2017. Included in the net increase were 87 graduates and apprentices. The directors thank employees for their valued support and contribution as the Group continues to develop and expand.

### **Outlook**

Notwithstanding current economic uncertainties, the Board remains confident in the future prospects of the Group. We continue to anticipate growth in both revenue and profit in this financial year and expect full year revenue to be in the range of £575m to £605m and adjusted profit before tax to be in the range of £127m to £147m. Statutory profit before tax is expected to be in the range of £136m to £156m.

### **Dividend**

The Board has approved an interim dividend of 14.0 pence net per share which will be paid on 9th April 2018 to shareholders on the register on 9th March 2018.

### **Investor Day**

An investor day is being held on 10th May 2018 and registration details will be published in due course.

Sir David R McMurtry  
CBE, RDI, FRS, FREng, CEng, FIMechE  
Chairman and Chief Executive  
25th January 2018

### **Footnote**

\*Previous year interim figures have been restated for the following:

Certain foreign currency forward contracts used as hedging instruments did not qualify for hedge accounting as they did not meet the hedge effectiveness criteria set out in the International Accounting Standard IAS39 'Financial Instruments: Recognition and Measurement'. To ensure technical compliance with this standard it has been deemed necessary to restate the 2017 interim financial statements resulting in a £10.9 net reduction to the profit before tax for that period and an increase in other comprehensive income by the same amount.

In June 2017, after an extensive review of the spatial measurements business, the Board decided to discontinue this line of business. This business has been accounted for as a discontinued activity, with comparative figures for the previous year being restated accordingly. See note 12 for further details.

<sup>1</sup>Note 13, 'Alternative performance measures', defines how adjusted profit before tax and earnings per share are calculated.

# Consolidated income statement

Unaudited

		6 months to 31st December 2017 £'000	Restated* 6 months to 31st December 2016 £'000	Audited Year ended 30th June 2017 £'000
<b>Continuing operations</b>	Notes			
<b>Revenue</b>	2	<b>279,458</b>	238,081	536,807
Cost of sales		<b>(134,494)</b>	(121,239)	(251,384)
<b>Gross profit</b>		<b>144,964</b>	116,842	285,423
Distribution costs		<b>(59,162)</b>	(54,559)	(112,691)
Administrative expenses		<b>(24,098)</b>	(24,558)	(52,376)
Profit/(loss) from the fair value of financial instruments		<b>3,508</b>	(12,577)	(3,601)
<b>Operating profit</b>		<b>65,212</b>	25,148	116,755
Financial income	3	<b>308</b>	368	766
Financial expenses	3	<b>(946)</b>	(1,112)	(2,256)
Share of profits from associates and joint ventures		<b>1,584</b>	870	1,836
<b>Profit before tax</b>		<b>66,158</b>	25,274	117,101
Income tax expense	4	<b>(10,076)</b>	(3,973)	(14,343)
<b>Profit for the period from continuing operations</b>		<b>56,082</b>	21,301	102,758
Profit/(loss) for the period from discontinued operations	5	<b>791</b>	(3,872)	(13,931)
<b>Profit for the period</b>		<b>56,873</b>	17,429	88,827
<b>Profit attributable to:</b>				
Equity shareholders of the parent company		<b>56,855</b>	17,559	88,955
Non-controlling interest		<b>18</b>	(130)	(128)
<b>Profit for the period</b>		<b>56,873</b>	17,429	88,827
<b>Dividend per share arising in respect of the period</b>	10	<b>Pence 14.0</b>	Pence 12.5	Pence 52.0
<b>Earnings per share from continuing operations (basic and diluted)</b>	6	<b>77.0</b>	29.4	141.3
<b>Earnings/(loss) per share from discontinued operations (basic and diluted)</b>	6	<b>1.09</b>	(5.3)	(19.1)

\*Note 12, 'Restatement of previous first half year', details the adjustments made to previously disclosed interim figures.

# Consolidated statement of comprehensive income and expense

Unaudited

	<b>6 months to 31st December 2017 £'000</b>	Restated 6 months to 31st December 2016 £'000	Audited Year ended 30th June 2017 £'000
<b>Profit for the period</b>	<b>56,873</b>	17,429	88,827
<b>Other items recognised directly in equity:</b>			
<b>Items that will not be reclassified to the Consolidated income statement:</b>			
Remeasurement of defined benefit pension liabilities	<b>(2,908)</b>	(2,525)	(1,608)
Deferred tax on remeasurement of defined benefit pension liabilities	<b>646</b>	728	(835)
<b>Total for items that will not be reclassified</b>	<b>(2,262)</b>	(1,797)	(2,443)
<b>Items that may be reclassified subsequently to the Consolidated income statement:</b>			
Foreign exchange translation differences	<b>(1,764)</b>	5,490	3,889
Comprehensive income and expense of associates and joint ventures	<b>46</b>	84	173
Effective portion of changes in fair value of cash flow hedges, net of recycling	<b>27,918</b>	(7,736)	8,495
Deferred tax on effective portion of changes in fair value of cash flow hedges	<b>(5,186)</b>	1,470	(1,573)
<b>Total for items that may be reclassified</b>	<b>21,014</b>	(692)	10,984
<b>Total other comprehensive income and expense, net of tax</b>	<b>18,752</b>	(2,489)	8,541
<b>Total comprehensive income and expense for the period</b>	<b>75,625</b>	14,940	97,368
<b>Attributable to:</b>			
Equity shareholders of the parent company	<b>75,607</b>	15,070	97,496
Non-controlling interest	<b>18</b>	(130)	(128)
<b>Total comprehensive income and expense for the period</b>	<b>75,625</b>	14,940	97,368

# Consolidated balance sheet

Unaudited

		At 31st December 2017 £'000	Restated* At 31st December 2016 £'000	Audited At 30th June 2017 £'000
	Notes			
<b>Assets</b>				
Property, plant and equipment	7	228,306	230,595	228,050
Intangible assets	8	54,881	60,790	54,507
Investments in associates and joint ventures	9	8,434	6,256	7,311
Long-term loans to associates and joint ventures		3,933	-	3,080
Deferred tax assets		33,404	44,330	39,115
Derivatives	10	11,153	505	3,546
<b>Total non-current assets</b>		<b>340,111</b>	<b>342,476</b>	<b>335,609</b>
<b>Current assets</b>				
Inventories		99,076	90,802	87,697
Trade receivables		116,882	111,753	137,507
Current tax		1,194	2,740	2,276
Other receivables		18,917	16,615	15,907
Derivatives	10	802	99	-
Pension scheme cash escrow account	11	12,877	15,317	12,850
Cash and cash equivalents		69,127	26,490	51,942
<b>Total current assets</b>		<b>318,875</b>	<b>263,816</b>	<b>308,179</b>
<b>Current liabilities</b>				
Trade payables		16,461	20,025	19,544
Overdraft		-	12,519	-
Current tax		5,764	1,130	2,803
Provisions		3,064	2,793	2,960
Derivatives	10	19,264	31,180	25,261
Other payables		27,965	19,707	37,304
<b>Total current liabilities</b>		<b>72,518</b>	<b>87,354</b>	<b>87,872</b>
<b>Net current assets</b>		<b>246,357</b>	<b>176,462</b>	<b>220,307</b>
<b>Non-current liabilities</b>				
Employee benefits	11	67,817	68,725	66,787
Deferred tax liabilities		13,862	21,999	13,844
Derivatives	10	14,104	57,729	31,471
<b>Total non-current liabilities</b>		<b>95,783</b>	<b>148,453</b>	<b>112,102</b>
<b>Total assets less total liabilities</b>		<b>490,685</b>	<b>370,485</b>	<b>443,814</b>
<b>Equity</b>				
Share capital	10	14,558	14,558	14,558
Share premium		42	42	42
Currency translation reserve	10	8,792	12,022	10,510
Cash flow hedging reserve	10	(8,317)	(44,237)	(31,049)
Retained earnings		476,642	389,152	450,803
Other reserve	10	(460)	(460)	(460)
<b>Equity attributable to the shareholders of the parent company</b>		<b>491,257</b>	<b>371,077</b>	<b>444,404</b>
Non-controlling interest	10	(572)	(592)	(590)
<b>Total equity</b>		<b>490,685</b>	<b>370,485</b>	<b>443,814</b>

\*Note 12, 'Restatement of previous first half year', details the adjustments made to previously disclosed interim figures.

# Consolidated statement of changes in equity

Unaudited

	Share capital £'000	Share premium £'000	Currency translation reserve £'000	Cash flow hedging reserve £'000	Retained earnings £'000	Other reserve £'000	Non-controlling interest £'000	Total £'000
Balance at 1st July 2016 as initially reported	14,558	42	6,448	(56,460)	420,419	(460)	(3,162)	381,385
Restatement	-	-	-	18,489	(18,489)	-	-	-
<b>Balance at 1<sup>st</sup> July 2016 restated</b>	<b>14,558</b>	<b>42</b>	<b>6,448</b>	<b>(37,971)</b>	<b>401,930</b>	<b>(460)</b>	<b>(3,162)</b>	<b>381,385</b>
Profit/(loss) for the period	-	-	-	-	17,559	-	(130)	17,429
<b>Other comprehensive income and expense (net of tax)</b>								
Remeasurement of defined benefit pension liabilities	-	-	-	-	(1,797)	-	-	(1,797)
Foreign exchange translation differences	-	-	5,490	-	-	-	-	5,490
Relating to associates and joint ventures	-	-	84	-	-	-	-	84
Changes in fair value of cash flow hedges	-	-	-	(6,266)	-	-	-	(6,266)
Total other comprehensive income and expense	-	-	5,574	(6,266)	(1,797)	-	-	(2,489)
Total comprehensive income and expense	-	-	5,574	(6,266)	15,762	-	(130)	(14,940)
<b>Transactions with owners recorded in equity</b>								
Acquisition of non-controlling interest	-	-	-	-	(2,700)	-	2,700	-
Dividends paid	-	-	-	-	(25,840)	-	-	(25,840)
<b>Balance at 31st December 2016</b>	<b>14,558</b>	<b>42</b>	<b>12,022</b>	<b>(44,237)</b>	<b>389,152</b>	<b>(460)</b>	<b>(592)</b>	<b>370,485</b>
Profit for the period	-	-	-	-	71,396	-	2	71,398
<b>Other comprehensive income and expense (net of tax)</b>								
Remeasurement of defined benefit pension liabilities	-	-	-	-	(646)	-	-	(646)
Foreign exchange translation differences	-	-	(1,601)	-	-	-	-	(1,601)
Relating to associates and joint ventures	-	-	89	-	-	-	-	89
Changes in fair value of cash flow hedges	-	-	-	13,188	-	-	-	13,188
Total other comprehensive income and expense	-	-	(1,512)	13,188	(646)	-	-	11,030
Total comprehensive income and expense	-	-	(1,512)	13,188	70,750	-	2	82,428
<b>Transactions with owners recorded in equity</b>								
Dividends paid	-	-	-	-	(9,099)	-	-	(9,099)
<b>Balance at 30th June 2017</b>	<b>14,558</b>	<b>42</b>	<b>10,510</b>	<b>(31,049)</b>	<b>450,803</b>	<b>(460)</b>	<b>(590)</b>	<b>443,814</b>
Profit for the period	-	-	-	-	56,855	-	18	56,873
<b>Other comprehensive income and expense (net of tax)</b>								
Remeasurement of defined benefit pension liabilities	-	-	-	-	(2,264)	-	-	(2,264)
Foreign exchange translation differences	-	-	(1,764)	-	-	-	-	(1,764)
Relating to associates and joint ventures	-	-	46	-	-	-	-	46
Changes in fair value of cash flow hedges	-	-	-	22,732	-	-	-	22,732
Total other comprehensive income and expense	-	-	(1,718)	22,732	(2,264)	-	-	18,750
Total comprehensive income and expense	-	-	(1,718)	22,732	54,591	-	18	75,623
<b>Transactions with owners recorded in equity</b>								
Dividends paid	-	-	-	-	(28,752)	-	-	(28,752)
<b>Balance at 31st December 2017</b>	<b>14,558</b>	<b>42</b>	<b>8,792</b>	<b>(8,317)</b>	<b>476,642</b>	<b>(460)</b>	<b>(572)</b>	<b>490,685</b>

# Consolidated statement of cash flow

Unaudited

	6 months to 31st December 2017 £'000	Restated 6 months to 31st December 2016 £'000	Audited Year ended 30th June 2017 £'000
<b>Cash flows from operating activities</b>			
Profit for the period	56,873	17,429	88,827
Amortisation of development costs	6,059	5,756	13,645
Amortisation of other intangibles	788	2,605	10,230
Depreciation	12,758	10,716	22,192
Loss/(profit) on sale of property, plant and equipment	(160)	170	2,085
Losses/(gains) from the fair value of financial instruments	(3,857)	10,865	(8,022)
Share of profits from associates and joint ventures	(1,584)	(870)	(1,836)
Financial income	(308)	(368)	(766)
Financial expenses	946	1,112	2,256
Tax expense	10,261	3,897	13,132
	<b>24,903</b>	<b>33,883</b>	<b>52,916</b>
Decrease/(increase) in inventories	(11,379)	4,157	7,262
Decrease/(increase) in trade and other receivables	13,174	8,358	(21,062)
(Decrease)/increase in trade and other payables	(11,160)	(1,428)	14,699
Increase in provisions	104	418	585
	<b>(9,261)</b>	<b>11,505</b>	<b>1,484</b>
Defined benefit pension contributions	(2,532)	(2,415)	(4,204)
Income taxes paid	(5,015)	(9,075)	(23,768)
	<b>64,968</b>	<b>51,327</b>	<b>115,255</b>
<b>Cash flows from operating activities</b>			
<b>Investing activities</b>			
Purchase of property, plant and equipment	(16,050)	(25,896)	(42,637)
Development costs capitalised	(7,160)	(7,177)	(15,886)
Purchase of other intangibles	(383)	(80)	(754)
Investment in subsidiaries, associates and joint ventures	-	-	-
Sale of property, plant and equipment	1,571	439	5,526
Sale of property, plant and equipment relating to discontinued activities	-	960	960
Interest received	308	368	766
Dividends received from associates and joint ventures	507	356	356
Payments (to)/from pension scheme escrow account (net)	(27)	(38)	2,429
	<b>(21,234)</b>	<b>(31,068)</b>	<b>(49,240)</b>
<b>Cash flows from investing activities</b>			
<b>Financing activities</b>			
Interest paid	(292)	(320)	(696)
Dividends paid	(28,752)	(25,840)	(34,939)
	<b>(29,044)</b>	<b>(26,160)</b>	<b>(35,635)</b>
<b>Cash flows from financing activities</b>			
<b>Net increase/(decrease) in cash and cash equivalents</b>	<b>14,690</b>	<b>(5,901)</b>	<b>30,380</b>
Cash and cash equivalents at the beginning of the period	51,942	21,303	21,303
Effect of exchange rate fluctuations on cash held	2,495	(1,431)	259
<b>Cash and cash equivalents at the end of the period</b>	<b>69,127</b>	<b>13,971</b>	<b>51,942</b>



# Responsibility statement

The condensed set of financial statements is the responsibility of, and has been approved by, the Directors. We confirm that to the best of our knowledge:

- As required by DTR 4.2 of the Disclosure Rules and Transparency Rules, the condensed set of financial statements, which has been prepared in accordance with the applicable set of accounting standards, gives a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the undertakings included in the consolidation as a whole. The Interim report has been prepared in accordance with the EU endorsed standard IAS 34, 'Interim financial reporting'.
- The Interim report includes a fair review of the information required by:
  - (a) DTR 4.2.7 of the Disclosure Rules 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 set of financial statements; and a description of the principal risks and uncertainties for the remaining six months of the year; and
  - (b) DTR 4.2.8 of the Disclosure Rules and Transparency Rules, being related party transactions that have taken place in the first six months of the current financial year and 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.

On behalf of the Board

A C G Roberts FCA  
Group Finance Director  
25th January 2018

## Notes

### 1. Status of Interim report and accounting policies

The Interim report, which has not been audited, was approved by the directors on 25th January 2018.

#### General information

The Interim report has been prepared in accordance with the EU endorsed standard IAS 34, 'Interim financial reporting'. This interim financial information has been prepared on the basis of the accounting policies adopted in the most recent annual financial statements, these being for the year ended 30th June 2017, as revised for the implementation of specified new amended endorsed standards or interpretations.

Given the nature of some forward-looking information included in this report, which the directors have given in good faith, this information should be treated with due caution. The Interim report is available on our website [www.renishaw.com](http://www.renishaw.com).

The interim financial information for the six months to 31st December 2017 and the comparative figures for the six months to 31st December 2016 are unaudited. The comparative figures for the financial year ended 30th June 2017 are not the Company's statutory accounts for that financial year. Those accounts have been reported on by the Company's auditors and delivered to the registrar of companies. The report of the auditors was (i) unqualified, (ii) did not include a reference to any matters to which the auditors drew attention by way of emphasis without qualifying their report, and (iii) did not contain a statement under section 498 (2) or (3) of the Companies Act 2006, relating to the accounting records of the Company.

### **Going concern**

The Group has considerable financial resources at its disposal and the directors have considered the current financial projections. As a consequence, the directors believe that the Group is well placed to manage its business risks successfully.

After making enquiries, the directors have a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future. Accordingly, they continue to adopt the going concern basis in preparing the Interim report.

### **Accounting policies**

The accounting policies applied and significant estimates used by the Group in this Interim report are the same as those applied by the Group for the year ended 30th June 2017. Note, IFRS 15, Revenue from contracts with customers, effective for accounting periods beginning on or after 1st January 2018, has not yet been applied. The introduction of this standard is not expected to have a material impact on the results of the Group due to the relatively straightforward contractual terms and conditions with customers. An assessment of the impact will be concluded in the second half of the financial year and the outcome will be included in the 2018 Annual Report.

## **2. Segmental information**

Renishaw's business is metrology, the science of measurement. The Group manages its business in two business segments, Metrology, being the traditional core business, and Healthcare.

### **Our products / Metrology**

Our metrology products help manufacturers to maximise production output, significantly reduce the time taken to produce and inspect components, and keep their machines running reliably. In the fields of industrial automation and motion systems, our position measurement and calibration systems allow machine builders to manufacture highly accurate and reliable products.

The product range includes the following:

#### **Co-ordinate measuring machine (CMM) products**

Sensors, software and control systems for three-dimensional CMMs, including touch-trigger and scanning probes, automated probe changers, motorised indexing probe heads and 5-axis measurement systems, which enable the highly accurate measurement of manufactured components and finished assemblies.

#### **Machine tool probe systems**

Sensors and software for computer numerically controlled (CNC) metal-cutting machine tools that allow the automation of setting and on-machine measurement operations, leading to more productivity from existing machines and reductions in scrap and rework. These include laser tool setters, contact tool setters, tool breakage detectors, touch probes, contact scanning systems and high-accuracy inspection probes.

#### **Styli for probe systems**

Precision styli that attach to probe sensors for CMMs, machine tools and Equator™ gauging systems to ensure that accurate measurement data is acquired at the point of contact.

#### **Performance testing products**

Calibration and testing products to determine the positioning accuracy of a wide range of industrial and scientific machinery to international standards, including a laser interferometer, rotary axis calibrator, wireless telescoping ballbar and software for data capture and analysis.

#### **Gauging**

Equator™ enables process control by delivering highly repeatable, thermally insensitive, versatile and reprogrammable gauging to the shop floor, both as a standalone device and as part of an automated manufacturing cell. Combined with INTUO™ software, Equator is also an ideal alternative to traditional manual gauging, with training in a few hours, allowing engineers to program parts in minutes.

## **Fixtures**

Modular and custom fixtures used to hold parts securely for dimensional inspection on CMM, vision and gauging systems.

## **Position encoders**

Position encoders that ensure accurate linear and rotary motion control in a wide range of applications from electronics, flat panel displays, robotics and semiconductors to medical, precision machining and print production. These include magnetic encoders, incremental optical encoders, absolute optical encoders and laser interferometer encoders.

## **Additive manufacturing (AM)**

Advanced metal AM systems for direct manufacturing of 3D-printed metallic components. A total solution is offered from systems, materials, ancillaries and software through to consultancy, training and support for a range of industries including industrial, healthcare and mould tooling.

## **Vacuum casting**

Vacuum casting machines from entry-level to high capacity for rapid prototyping and production of polymer end-use parts.

## **Our products / Healthcare**

Our technologies are helping within applications such as craniomaxillofacial surgery, dentistry, neurosurgery, chemical analysis and nanotechnology research. These include engineering solutions for stereotactic neurosurgery, analytical tools that identify and characterise the chemistry and structure of materials, the supply of implants to hospitals and specialist design centres for craniomaxillofacial surgery, and products and services that allow dental laboratories to manufacture high-quality dental restorations.

The product range includes the following:

### **Dental scanners**

3D contact scanners and non-contact optical scanners used for digitising of dental preparations and the measurement of implant locations for tooth-supported frameworks and custom abutments.

### **Dental computer-aided design (CAD) software**

Dental CAD software that allows set-up of scanning routines and enables laboratory staff to design abutments and structures for crowns and bridges, including powerful anatomic design functions.

### **Dental structures manufacturing service**

A central manufacturing service that can handle CAD files from a wide variety of dental CAD systems to produce structures for crowns and bridges in zirconia, cobalt chrome, PMMA (used for temporary restorations) and wax, and abutments in cobalt chrome.

### **Craniomaxillofacial custom-made implants**

Additively manufactured from titanium, custom-made craniomaxillofacial implants are structural implants that are used in the reconstruction of a patient's head, face or jaw. These are most commonly required after oncology treatment or as a result of trauma.

### **Neurosurgical robot**

A stereotactic robot that provides a platform solution for a broad range of functional neurosurgical procedures including deep brain stimulation (DBS), stereoelectroencephalography (SEEG), neuroendoscopy and stereotactic biopsies, and is being used within the context of trials for both neurosurgical disorders and brain oncology.

### **Neurosurgical planning software**

Software that allows advanced planning of targets and trajectories for stereotactic neurosurgery.

### **Neurosurgical implants and devices**

Implantable devices that allow surgeons to verify expected DBS electrode position relative to targeted anatomy using magnetic resonance imaging (MRI) for the treatment of Parkinson's disease, other movement disorders and neuropathic pain.

### **Neurosurgical accessories**

Specialist electrodes and instruments for use in epilepsy neurosurgery, manufactured by DIXI Medical.

### Raman microscopes

Scientists and engineers worldwide use Renishaw's research-grade inVia Raman microscope for the non-destructive chemical analysis and imaging of materials. Its high-speed, high-quality results and upgradeability are valued in fields as diverse as nanotechnology, biology and pharmaceuticals.

### Hybrid Raman systems

Renishaw's hybrid systems unite the chemical analysis power of Raman spectroscopy with the high spatial resolution of other techniques, such as atomic force microscopy and scanning electron microscopy. These new instruments are vital tools for investigating materials and devices for nanotechnology applications.

### Turn-key Raman analysis

The RA800 benchtop platform provides companies with a high performance chemical imaging and analysis system that can be tailored for the needs of their customers. RA800 gives research-grade Raman microscopy performance in a Class 1 laser-safe, simple-to-use form.

Segmental financial results were:

<b>6 months to 31st December 2017</b>	<b>Metrology £'000</b>	<b>Healthcare £'000</b>	<b>Total £'000</b>
Revenue	264,307	15,151	279,458
Depreciation and amortisation	18,561	1,044	19,605
Operating profit/(loss) before gain from fair value of financial instruments	63,561	(1,857)	61,704
Share of profits from associates and joint ventures	1,584	-	1,584
Net financial expense	-	-	(638)
Profit from the fair value of financial instruments	-	-	3,508
Profit before tax	-	-	66,158
<b>6 months to 31st December 2016 (restated)</b>			
Revenue	224,627	13,454	238,081
Depreciation and amortisation	15,402	1,783	17,185
Operating profit/(loss) before loss from fair value of financial instruments	43,632	(5,907)	37,725
Share of profits from associates and joint ventures	870	-	870
Net financial expense	-	-	(744)
Profit from the fair value of financial instruments	-	-	(12,577)
Profit before tax	-	-	25,274
<b>Year ended 30th June 2017</b>			
Revenue	503,378	33,429	536,807
Depreciation and amortisation	32,983	3,831	36,814
Operating profit/(loss) before loss from fair value of financial instruments	126,830	(6,474)	120,356
Share of profits from associates and joint ventures	1,836	-	1,836
Net financial expense	-	-	(1,490)
Profit from the fair value of financial instruments	-	-	(3,601)
Profit before tax	-	-	117,101

There is no allocation of assets and liabilities to operating segments. Depreciation is included within certain other overhead expenditure which is allocated to segments on the basis of the level of activity.

The following table shows the analysis of revenue by geographical market:

	<b>6 months to 31st December 2017 £'000</b>	Restated 6 months to 31st December 2016 £'000	Year ended 30th June 2017 £'000
Far East, including Australasia	125,166	109,076	248,905
Continental Europe	71,763	59,379	129,941
North, South and Central America	58,791	48,488	113,577
United Kingdom and Ireland	14,737	12,995	27,595
Other regions	9,001	8,143	16,789
<b>Total group revenue</b>	<b>279,458</b>	<b>238,081</b>	<b>536,807</b>

Revenue in the above table has been allocated to regions based on the geographical location of the customer. Countries with individually material revenue figures in the context of the Group were:

	<b>6 months to 31st December 2017 £'000</b>	Restated 6 months to 31st December 2016 £'000	Year ended 30th June 2017 £'000
China	68,144	59,030	134,984
USA	49,934	41,878	95,927
Germany	29,031	25,889	56,403
Japan	28,822	24,723	52,166

There was no revenue from transactions with a single external customer amounting to 10% or more of the Group's total revenue for the period.

The following table shows the analysis of non-current assets, excluding deferred tax and derivatives, by geographical area:

	<b>At 31st December 2017 £'000</b>	At 31st December 2016 £'000	At 30th June 2017 £'000
United Kingdom	182,542	188,258	183,102
Overseas	113,012	109,383	109,846
	<b>295,554</b>	<b>297,641</b>	<b>292,948</b>

No overseas country had non-current assets amounting to 10% or more of the Group's total non-current assets.

### 3. Financial income and expenses

<b>Financial income</b>	<b>6 months to 31st December 2017 £'000</b>	6 months to 31st December 2016 £'000	Year ended 30th June 2017 £'000
Bank interest receivable	308	368	766
<b>Financial expenses</b>	<b>6 months to 31st December 2017 £'000</b>	6 months to 31st December 2016 £'000	Year ended 30th June 2017 £'000
Interest on pension schemes' liabilities	654	792	1,560
Bank interest payable	292	320	696
	<b>946</b>	<b>1,112</b>	<b>2,256</b>

## 4. Income tax expense

The income tax expense has been estimated at a rate of 15.2% (December 2016 restated: 15.7%), the rate expected to be applicable for the full year. This includes the impact of the reduction in the US corporate income tax rate from 35% to 21%, with effect from 1 January 2018, which was substantively enacted in December 2017.

## 5. Discontinued operations

In October 2016, the Group announced that it had decided to discontinue operations at Renishaw Diagnostics Limited and in June 2017, to discontinue the spatial measurement business. Financial information relating to discontinued operations is set out below.

	6 months to 31st December 2017 £'000	6 months to 31st December 2016 £'000	Year ended 30th June 2017 £'000
Revenue	3,708	4,055	7,217
Expenses	(2,732)	(6,642)	(13,914)
Goodwill impairment	-	(1,784)	(8,445)
Profit/(loss) before tax	976	(4,371)	(15,142)
Tax (expense)/credit	(185)	499	1,211
<b>Profit/(loss) for the period from discontinued operations</b>	<b>791</b>	<b>(3,872)</b>	<b>(13,931)</b>

  

	6 months to 31st December 2017 £'000	6 months to 31st December 2016 £'000	Year ended 30th June 2017 £'000
<b>Cashflow</b>			
Profit/(loss) for the period	791	(3,872)	(13,931)
Adjustments for operating activities	950	2,421	12,155
Cash flows generated from/(used in) operating activities	1,741	(1,451)	(1,776)
Cash flows from investing activities	-	916	420
<b>Net increase/(decrease) in cash and cash equivalents from discontinued operations</b>	<b>1,741</b>	<b>(535)</b>	<b>(1,356)</b>

## 6. Earnings per share

The earnings per share on continuing operations for the six months ended 31st December 2017 is calculated on earnings of £56,064,000 (December 2016: £21,431,000) and on 72,788,543 shares, being the number of shares in issue during the period.

The earnings per share on continuing operations for the year ended 30th June 2017 is calculated on earnings of £102,886,000 and on 72,788,543 shares, being the number of shares in issue during that year.

The earnings per share on discontinued operations for the six months ended 31st December 2017 is calculated on losses of £791,000 (December 2016: £3,872,000 loss) and on 72,788,543 shares, being the number of shares in issue during the period.

The loss per share on discontinued operations for the year ended 30th June 2017 is calculated on losses of £13,931,000 and on 72,788,543 shares, being the number of shares in issue during that year.

## 7. Property, plant and equipment

	Freehold land and buildings £'000	Plant and equipment £'000	Motor vehicles £'000	Assets in the course of construction £'000	Total £'000
<b>Cost</b>					
At 1st July 2017	165,661	201,022	9,893	8,222	384,798
Additions	2,337	7,846	514	5,353	16,050
Transfers	3,359	3,151	-	(6,510)	-
Disposals	(1,016)	(2,941)	(232)	-	(4,189)
Currency adjustment	(1,675)	(419)	(66)	-	(2,160)
<b>At 31st December 2017</b>	<b>168,666</b>	<b>208,659</b>	<b>10,109</b>	<b>7,065</b>	<b>394,499</b>
<b>Depreciation</b>					
At 1st July 2017	28,462	121,611	6,675	-	156,748
Charge for the period	1,476	10,551	731	-	12,758
Released on disposals	(563)	(2,003)	(212)	-	(2,778)
Currency adjustment	(267)	(223)	(45)	-	(535)
<b>At 31st December 2017</b>	<b>29,108</b>	<b>129,936</b>	<b>7,149</b>		<b>166,193</b>
<b>Net book value</b>					
At 31st December 2017	139,558	78,723	2,960	7,065	228,306
At 30th June 2017	137,199	79,411	3,218	8,222	228,050

Additions to assets in the course of construction of £5,353,000 (December 2016: £17,525,000) comprise £3,208,000 (December 2016: £13,765,000) for freehold land and buildings and £2,145,000 (December 2016: £3,760,000) for plant and equipment.

At the end of the period, assets in the course of construction, not yet transferred, of £7,065,000 (December 2016: £27,644,000) comprise £3,479,000 (December 2016: £21,484,000) for freehold land and buildings and £3,586,000 (December 2016: £6,160,000) for plant and equipment.

## 8. Intangible assets

	Goodwill on consolidation £'000	Other intangible assets £'000	Internally generated development costs £'000	Software licences £'000	Total £'000
<b>Cost</b>					
At 1st July 2017	19,919	11,647	117,349	23,066	171,981
Additions	-	-	7,160	383	7,543
Disposals	-	-	-	-	-
Currency adjustment	(300)	(24)	-	(4)	(328)
<b>At 31st December 2017</b>	<b>19,619</b>	<b>11,623</b>	<b>124,509</b>	<b>23,445</b>	<b>179,196</b>
<b>Amortisation</b>					
At 1st July 2017	6,661	11,187	81,327	18,299	117,474
Charge for the period	-	(11)	6,059	799	6,847
Released on disposal	-	-	-	-	-
Currency adjustment	-	-	-	(6)	(6)
<b>At 31st December 2017</b>	<b>6,661</b>	<b>11,176</b>	<b>87,386</b>	<b>19,092</b>	<b>124,315</b>
<b>Net book value</b>					
At 31st December 2017	12,958	447	37,123	4,353	54,881
At 30th June 2017	13,258	460	36,022	4,767	54,507

The analysis of acquired goodwill on consolidation is:

	At 31st December 2017 £'000	At 31st December 2016 £'000	At 30th June 2017 £'000
Acquisition of:			
itp GmbH	3,065	2,960	3,038
Renishaw Mayfield S.A.	1,712	1,794	1,823
R&R Fixtures, LLC	5,130	5,585	5,327
Renishaw Software Limited	1,559	1,559	1,559
Other smaller acquisitions	1,492	1,529	1,511
Measurement Devices Limited	-	6,661	-
Balance at the end of the period	<b>12,958</b>	20,088	13,258

## 9. Investments in associates

Movements during the period were:	6 months to 31st December 2017 £'000	6 months to 31st December 2016 £'000	Year ended 30th June 2017 £'000
Balance at the beginning of the period	7,311	5,658	5,658
Dividends received	(507)	(356)	(356)
Share of profits of associates and joint ventures	1,584	870	1,836
Other comprehensive income and expense	46	84	173
Balance at the end of the period	<b>8,434</b>	6,256	7,311

## 10. Capital and reserves

Share capital	At 31st December 2017 £'000	At 31st December 2016 £'000	At 30th June 2017 £'000
<b>Allotted, called-up and fully paid</b>			
72,788,543 ordinary shares of 20p each	<b>14,558</b>	14,558	14,558

The ordinary shares are the only class of share in the Company. Holders of ordinary shares are entitled to vote at general meetings of the Company and receive dividends as declared. The Articles of Association of the Company do not contain any restrictions on the transfer of shares nor on voting rights.

### Currency translation reserve

The currency translation reserve comprises all foreign exchange differences arising from the translation of the financial statements of the foreign operations, offset by foreign exchange differences on bank liabilities which have been accounted for directly in equity on account of them being classified as hedging items. The policy to hedge net overseas assets was ended in December 2017. Future movements in the currency translation reserve will therefore arise only from translation of financial statements of foreign operations.

### Cash flow hedging reserve

The cash flow hedging reserve comprises all foreign exchange differences arising from the valuation of forward exchange contracts which are effective hedges and mature after the period end. These are valued on a mark-to-market basis, are accounted for directly in equity and are recycled through the Consolidated income statement when the hedged item affects the Consolidated income statement. The forward contracts mature over the next three and a half years.



Movements during the period were:	6 months to 31st December 2017 £'000	Restated 6 months to 31st December 2016 £'000	Year ended 30th June 2017 £'000
Balance at the beginning of the period	(31,049)	(37,971)	(37,971)
Revaluations during the period	27,918	(7,736)	8,495
Deferred tax movement	(5,186)	1,470	(1,573)
<b>Balance at the end of the period</b>	<b>(8,317)</b>	<b>(44,237)</b>	<b>(31,049)</b>

The cash flow hedging reserve is analysed as:

	At 31st December 2017 £'000	At 31st December 2016 £'000	At 30th June 2017 £'000
Derivatives in non-current assets	11,153	505	3,546
Derivatives in current assets	802	99	-
Derivatives in current liabilities	(19,264)	(31,180)	(25,261)
Derivatives in non-current liabilities	(14,104)	(57,729)	(31,471)
	<b>(21,413)</b>	<b>(88,305)</b>	<b>(53,186)</b>
Included in deferred tax assets	4,229	16,778	10,143
Derivatives not eligible for cash flow hedging (net of tax)	8,867	27,290	11,994
<b>Balance at the end of the period</b>	<b>(8,317)</b>	<b>(44,237)</b>	<b>(31,049)</b>

#### Dividends

Dividends paid during the period were:	6 months to 31st December 2017 £'000	6 months to 31st December 2016 £'000	Year ended 30th June 2017 £'000
2017 final dividend of 39.5p per share (2016: 35.5p)	28,752	25,840	25,840
2017 interim dividend of 12.5p	-	-	9,099
<b>Total dividends paid during the period</b>	<b>28,752</b>	<b>25,840</b>	<b>34,939</b>

An interim dividend for 2018 of £10,190,396 (14.0p net per share) will be paid on 9th April 2018 to shareholders on the register on 9th March 2018, with an ex-div date of 8th March 2018.

#### Other reserve

The other reserve is in relation to additional investments in subsidiary undertakings.

#### Non-controlling interest

Movements during the period were:	6 months to 31st December 2017 £'000	6 months to 31st December 2016 £'000	Year ended 30th June 2017 £'000
Balance at the beginning of the period	(590)	(3,162)	(3,162)
Acquisition of remaining shareholding in Renishaw Mayfield A.G.	-	2,700	2,700
Share of profit/(loss) for the period	18	(130)	(128)
<b>Balance at the end of the period</b>	<b>(572)</b>	<b>(592)</b>	<b>(590)</b>

## 11. Employee benefits

The Group operates a number of pension schemes throughout the world. The major scheme, which covers the UK-based employees, was of the defined benefit type. This scheme, along with the Ireland and USA defined benefit schemes, has ceased any future accrual for current members and all these schemes are now closed to new members. UK, Ireland and USA employees are now covered by defined contribution schemes.

The latest full actuarial valuation of the UK defined benefit scheme was carried out at September 2015 and updated to 31st December 2017 by a qualified independent actuary. The major assumptions used by the actuary were:

	At 31st December 2017	At 31st December 2016	At 30th June 2017
Discount rate	2.6%	2.9%	2.7%
Inflation rate – RPI	3.5%	3.7%	3.4%
Inflation rate – CPI	2.5%	2.7%	2.4%
Retirement age	64	64	64

The assets and liabilities in the defined benefit schemes were:

	At 31st December 2017 £'000	At 31st December 2016 £'000	At 30th June 2017 £'000
Market value of assets	176,176	165,641	170,708
Actuarial value of liabilities under IAS 19	<b>(224,493)</b>	(226,566)	(221,295)
	<b>(48,317)</b>	(60,925)	(50,587)
Increase in liability under IFRIC 14	<b>(19,500)</b>	(7,800)	(16,200)
Deficit in the schemes	<b>(67,817)</b>	(68,725)	(66,787)
Deferred tax thereon	<b>11,238</b>	12,860	11,024

The movements in the schemes' assets and liabilities were:

	6 months to 31st December 2017 £'000	6 months to 31st December 2016 £'000	Year ended 30th June 2017 £'000
Balance at the beginning of the period	<b>(66,787)</b>	(67,823)	(67,823)
Contributions paid	<b>2,532</b>	2,415	4,204
Interest on pension schemes	<b>(654)</b>	(792)	(1,560)
Remeasurement gain/(loss) under IAS 19	<b>392</b>	(10,125)	(808)
Change in remeasurement loss under IFRIC 14	<b>(3,300)</b>	7,600	(800)
Balance at the end of the period	<b>(67,817)</b>	(68,725)	(66,787)

An agreement has been entered into with the trustees of the UK defined benefit pension scheme in relation to deficit funding plans which supersede the previous arrangements.

The Company has agreed to pay all monthly pensions payments and lump sum payments, and transfer payments up to a limit of £1,000,000 in each year (Benefits in Payment).

A number of UK properties owned by the Company are subject to registered fixed charges. One or more of the properties may be released from the fixed charge if on a subsequent valuation, the value of all properties under charge exceed 120% of the deficit.

The Company has also established an escrow bank account, which is subject to a registered floating charge. The balance of this account was £12,877,000 at the end of the period (December 2016: £15,317,000). The funds are being released back to the Company from the escrow account over a period of 6 years, which commenced in June 2017.

The agreement continues until 30th June 2031, but may end sooner if the deficit (calculated on a self-sufficiency basis as defined in the agreement) is eliminated in the meantime. At 30th June 2031 the Company is obliged to pay any deficit at that time. All properties will be released from charge when the deficit no longer exists.

The charges may be enforced by the trustees if one of the following occurs: (a) the Company does not pay any Benefits in Payment; (b) an insolvency event occurs in relation to the Company; or (c) the Company does not pay any deficit at 30th June 2031.

Under the Ireland defined benefit pension scheme deficit funding plan, a property owned by Renishaw (Ireland) Limited is subject to a registered fixed charge to secure the Ireland defined benefit pension scheme's deficit.

No scheme assets are invested in the Group's own equity.

The Company has given a guarantee relating to recovery plans for the UK defined benefit pension scheme. The value of the guarantee is greater than the value of the pension scheme's deficit. As such, in line with IFRIC 14, the UK defined benefit pension scheme's liabilities have been increased by £19,500,000, to represent the maximum discounted liability as at 31st December 2017 (2016: £7,800,000).

## 12. Restatement of previous first half year

The previous first half year's results have been restated for the following:

Certain foreign currency forward contracts used as hedging instruments did not qualify for hedge accounting as they did not meet the hedge effectiveness criteria set out in the International Accounting Standard IAS39 'Financial Instruments: Recognition and Measurement. To ensure technical compliance with this standard it has been deemed necessary to restate the 2017 interim financial statements resulting in a £10.9 reduction to the profit before tax for that year and a corresponding increase in other comprehensive income.

In June 2017, after an extensive review of the spatial measurements business, the Board decided to discontinue this line of business. The business has therefore been accounted for as a discontinued activity, with comparative figures for the previous year being restated accordingly.

The R&D tax credit, previously accounted for within administration expenses has been reclassified to be part of cost of sales.

<b>Consolidated income statement</b>	Previously reported £'000	Discontinued activities £'000	R&D tax credit £'000	Forward contracts £'000	Restated total £'000
<b>Revenue</b>	240,424	(4,055)	-	1,712	238,081
Cost of sales	(125,077)	2,738	1,100	-	(121,239)
<b>Gross profit</b>	<b>115,347</b>	<b>(1,317)</b>	<b>1,100</b>	<b>1,712</b>	<b>116,842</b>
Distribution costs	(56,156)	1,597	-	-	(54,559)
Administration expenses	(23,623)	165	(1,100)	-	(24,558)
Loss from the fair value of financial instruments	-	-	-	(12,577)	(12,577)
<b>Operating profit</b>	<b>35,568</b>	<b>445</b>	<b>-</b>	<b>(10,865)</b>	<b>25,148</b>
Finance income and expenses	(744)	-	-	-	(744)
Share of profits from associates and joint ventures	870	-	-	-	870
<b>Profit before tax</b>	<b>35,694</b>	<b>445</b>	<b>-</b>	<b>(10,865)</b>	<b>25,274</b>
Income tax expense	(5,961)	(76)	-	2,064	(3,973)
<b>Profit for the year from continuing operations</b>	<b>29,733</b>	<b>369</b>	<b>-</b>	<b>(8,801)</b>	<b>21,301</b>
Loss from discontinued operations	(3,503)	(369)	-	-	(3,872)
<b>Profit for the year</b>	<b>26,230</b>	<b>-</b>	<b>-</b>	<b>(8,801)</b>	<b>17,429</b>
<b>Earnings per share from continuing operations (pence)</b>	<b>41.0</b>	<b>0.5</b>	<b>-</b>	<b>(12.1)</b>	<b>29.4</b>

<b>Balance sheet</b>	<b>Currency hedging reserve £'000</b>	<b>Retained earnings £'000</b>
Balance at 1 <sup>st</sup> July 2015 as initially reported	17,171	402,559
Restatement of opening cash flow hedging reserve (a)	(2,386)	2,386
Profit for the year as initially reported	-	69,095
Remeasurement of defined benefit pension liability as reported	-	(17,388)
Changes in fair value of financial instruments as initially reported	(73,631)	-
Adjustment to the fair value of financial instruments (b)	20,875	(20,875)
Dividends paid as initially reported	-	(33,847)
<b>Restated balance at 30<sup>th</sup> June 2016</b>	<b>(37,971)</b>	<b>401,930</b>
Balance at 30 <sup>th</sup> June as initially reported	(56,460)	420,419
Adjustments (a) and (b) above	18,489	(18,489)
<b>Restated balance at 30<sup>th</sup> June 2016</b>	<b>(37,971)</b>	<b>401,930</b>
Balance at 31 <sup>st</sup> December as initially reported	(71,527)	416,442
Adjustments (a) and (b) above	18,489	(18,489)
Changes in fair value of financial instruments as reported for period 1 <sup>st</sup> July–31 <sup>st</sup> December 2016	(15,067)	15,067
Adjustment to the fair value of financial instruments	23,868	(23,868)
<b>Restated balance at 31<sup>st</sup> December 2016</b>	<b>(44,237)</b>	<b>389,152</b>

### 13. Alternative performance measures

Alternative performance measures are – Revenue at constant exchange rates, Adjusted profit before tax, Adjusted earnings per share and Adjusted operating profit.

Revenue at constant exchange rates is defined as Revenue recalculated using the same rates as were applicable to the previous year and excluding forward contract gains and losses.

<b>Revenue at constant exchange rates</b>	<b>6 months to 31<sup>st</sup> December 2017 £'000</b>	<b>6 months to 31<sup>st</sup> December 2016 £'000</b>
Statutory revenue as reported	279,458	238,081
Adjustment for forward contract losses	11,569	11,444
Adjustment to restate at previous year exchange rates	7,365	-
<b>Revenue at constant exchange rates</b>	<b>298,392</b>	<b>249,525</b>

Adjusted profit before tax, Adjusted earnings per share and Adjusted operating profit - These measures are defined as the profit before tax, earnings per share and operating profit after excluding gains and losses in fair value from forward currency contracts which did not qualify for hedge accounting.

The gains and losses from fair value of financial instruments not effective for cash flow hedging have been excluded from statutory profit before tax, statutory earnings per share and statutory operating profit in arriving at adjusted profit before tax, adjusted earnings per share and adjusted operating profit to reflect the Board's intent that the instruments would provide effective hedges.

The Board consider these alternative performance measures to be more relevant and reliable in evaluating the Group's performance.

The amounts shown below as reported in revenue represent the amount by which revenue would change had all the derivatives qualified as eligible for hedge accounting.

<b>Adjusted profit before tax</b>	<b>6 months to 31<sup>st</sup> December 2017 £'000</b>	6 months to 31 <sup>st</sup> December 2016 £'000	Year ended 30 <sup>th</sup> June 2017 £'000
Statutory profit before tax	66,158	25,274	117,101
Fair value (gains)/losses on financial instruments not eligible for hedge accounting			
- reported in revenue	(349)	(1,712)	(11,623)
- reported in losses from the fair value of financial instruments	(3,508)	12,577	3,601
<b>Adjusted profit before tax</b>	<b>62,301</b>	36,139	109,079
<b>Adjusted earnings per share</b>	<b>6 months to 31<sup>st</sup> December 2017 pence</b>	6 months to 31 <sup>st</sup> December 2016 pence	Year ended 30 <sup>th</sup> June 2017 pence
Statutory earnings per share	77.0	29.4	141.3
Fair value (gains)/losses on financial instruments not eligible for hedge accounting			
- reported in revenue	(0.4)	(1.9)	(12.9)
- reported in losses from the fair value of financial instruments	(3.9)	13.9	4.0
<b>Adjusted earnings per share</b>	<b>72.7</b>	41.4	132.4
<b>Adjusted operating profit</b>	<b>6 months to 31<sup>st</sup> December 2017 £'000</b>	6 months to 31 <sup>st</sup> December 2016 £'000	Year ended 30 <sup>th</sup> June 2017 £'000
Statutory operating profit	65,212	25,148	116,755
Fair value (gains)/losses on financial instruments not eligible for hedge accounting			
- reported in revenue	(349)	(1,712)	(11,623)
- reported in losses from the fair value of financial instruments	(3,508)	12,577	3,601
<b>Adjusted operating profit</b>	<b>61,355</b>	36,013	108,733
<b>Adjustments to segmental operating profit:</b>			
<b>Metrology</b>	<b>6 months to 31<sup>st</sup> December 2017 £'000</b>	6 months to 31 <sup>st</sup> December 2016 £'000	Year ended 30 <sup>th</sup> June 2017 £'000
Operating profit before gain/loss from fair value of financial instruments	63,561	43,632	126,830
Fair value (gains)/losses on financial instruments not eligible for hedge accounting			
- reported in revenue	(334)	(1,599)	(10,921)
<b>Adjusted metrology operating profit</b>	<b>63,227</b>	42,033	115,909
<b>Healthcare</b>	<b>6 months to 31<sup>st</sup> December 2017 £'000</b>	6 months to 31 <sup>st</sup> December 2016 £'000	Year ended 30 <sup>th</sup> June 2017 £'000
Operating loss before gain/loss from fair value of financial instruments	(1,857)	(5,907)	(6,474)
Fair value (gains)/losses on financial instruments not eligible for hedge accounting			
- reported in revenue	(15)	(113)	(702)
<b>Adjusted healthcare operating loss</b>	<b>(1,872)</b>	(6,020)	(7,176)

## 14. Deferred tax

Reductions in the UK rate of corporation tax to 19% from 1st April 2017 and 17% from 1st April 2020 have been substantively enacted. Deferred tax assets and liabilities have been calculated based on the rate expected to be applicable when the relevant items are expected to reverse.

## 15. Related party transactions

The only related party transactions which have taken place during the first half year were normal business transactions between the Group, its associates and joint ventures, which have not had a material effect on the results of the Group for this period.

## 16. Principal risks and uncertainties

As reported in the 2017 Annual report, the business implications of Brexit remain uncertain and any risks arising will be a key focus area for the Board and its committees for the foreseeable future. Currency fluctuations, trading arrangements, employment issues, research and development project funding and other risks that become apparent over time are under review by the Board and mitigations are being put in place where possible.

Area of risk	Description	Potential impact	Mitigation
Current trading levels and order book	Revenue growth is unpredictable and orders from customers generally involve short lead-times with the outstanding order book at any time being around one month's worth of revenue value.	<p>Global market conditions continue to highlight risks to growth and demand which can lead to fluctuating levels of revenue.</p> <p>Whilst global investment in production systems and processes is expected to expand, future growth is difficult to predict, especially with such a short-term order book. This limited forward order visibility leaves the annual revenue and profits forecasts uncertain.</p>	<p>The Group is expanding and diversifying its product range in order to maintain a world-leading position in its sales of metrology products. Investment in sales and marketing resources continues in order to support the breadth of the product range.</p> <p>The Group is applying its measurement expertise to grow its healthcare and additive manufacturing business activities.</p> <p>The Group retains a strong balance sheet and has the ability to flex manufacturing resource levels and shift patterns.</p>
Research and development	The development of new products and processes involves risk, such as development timescales, meeting the required technical specification and the impact of alternative technology developments.	Being at the leading edge of new technology in metrology and healthcare, there are uncertainties whether new developments will provide an economic return.	<p>Patent and intellectual property generation is core to new product developments.</p> <p>R&amp;D programmes are regularly reviewed against milestones and, when necessary, projects are cancelled.</p> <p>Medium to long-term R&amp;D strategies are monitored regularly by both the Board and Executive Board, including reviews of the allocation of R&amp;D resource to key projects.</p> <p>Product development processes around the Group are reviewed and aligned where possible to provide consistency and efficiency.</p> <p>New products involve beta testing at customers to ensure they will meet the needs of the market.</p> <p>Market developments are closely monitored and customer requirements regularly reviewed.</p>

Supply chain management	Customer deliveries may be threatened by either an external or internal failure in the supply chain.	Inability to meet customer deliveries could result in loss of revenue and profit.	<p>Production facilities are maintained with fire and flood risk in mind.</p> <p>Critical production processes are replicated at different locations where practical.</p> <p>The Group is highly vertically integrated, providing increased control over many aspects of the supply chain.</p> <p>Ability to flex manufacturing resource levels and shift patterns.</p> <p>Regular vendor reviews are performed for critical part suppliers.</p> <p>Stock policies are reviewed by the Board on a regular basis.</p> <p>Product quality is closely monitored.</p>
Regulatory legislation for healthcare products	The expansion of the Group's business into the healthcare markets involves a significantly increased requirement to obtain regulatory approval prior to the sale of these products.	Regulatory approval can be very expensive and time-consuming. This area is also very complex and there is a risk that the correct approvals are not obtained.	<p>Specialist legal and regulatory staff support the healthcare business.</p> <p>Experience of healthcare regulatory matters at board level.</p> <p>Healthcare operations in UK and France have ISO13485 certification for their quality management systems, with Ireland and other subsidiary healthcare operations falling under the UK quality management system.</p>
Defined benefit pension schemes	Investment returns and actuarial valuations of the defined benefit pension fund liabilities are subject to economic and social factors which are outside of the control of the Group.	Volatility in investment returns and actuarial assumptions can significantly affect the defined benefit pension fund deficit, impacting on future funding requirements.	<p>The investment strategy is managed by the pension fund trustees who operate in line with a statement of investment principles and take appropriate independent professional advice when necessary.</p> <p>A new recovery plan was agreed in June 2016 for the 2015 actuarial valuation based on funding to self-sufficiency.</p>
Exchange rate fluctuations	Fluctuating foreign exchange rates may affect the results of the Group.	With 95% of revenue generated outside of the UK, there is an exposure to major currency fluctuations, mainly in respect of the US Dollar, Euro and Japanese Yen. Such fluctuations could adversely impact the results of the Group, and in particular the income statement.	<p>The Group enters into forward contracts in order to hedge varying proportions of forecast US Dollar, Euro and Japanese Yen revenue and other currencies from time to time.</p> <p>Monthly board review of currency rates and hedging position.</p>
<p>Note that the balance sheet hedging policy ceased in December 2017 as the Board now consider the balance sheet impact of currency movements to be low.</p>			

Cyber security threats	For the Group to operate effectively it requires continuous access to timely and reliable information at all times. We seek to ensure continuous availability, security and operation of information systems. Cyber threats continue to increase.	<p>Reduced service to customers due to a lack of reliable management information putting the Group at a competitive disadvantage.</p> <p>Delay or impact on decision making through lack of availability of sound data or disruption in/denial of services.</p> <p>Loss of commercially sensitive and/or personal information leading to implications including reputational damage, claims or fines.</p> <p>Theft of commercial or sensitive information/data or fraud causing loss or disruption.</p>	<p>There is substantial resilience and back up built into group systems.</p> <p>Cyber risks and security is a regular topic for board discussions.</p> <p>Internal penetration testing is utilised on an appropriate basis.</p> <p>The Group operates central IT policies in all aspects of information security.</p> <p>Regular monitoring of all group systems takes place with regular reporting and analysis.</p> <p>Operating systems are continuously updated and refreshed in line with current threats.</p> <p>The Group employs a number of physical, logical and control measures to protect its information and systems.</p> <p>E-learning courses covering certain cyber threats were rolled out to all employees group wide during calendar year 2017 as well as management training.</p>
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## Financial calendar

Record date for 2018 interim dividend	9th March 2018
2018 interim dividend payment	9th April 2018
Announcement of 2018 full year results	26th July 2018
Mailing of 2018 Annual report	Late August 2018
Annual general meeting	18th October 2018
2018 final dividend payment	23rd October 2018

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