

# **8202-35 Level 3 Advanced Technical Diploma in Plumbing (450)**

**2022**

**Qualification Report**

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# Foreword

## Results August 2022

As you will likely be aware, Ofqual has announced that grading for General Qualifications this summer will be more generous than prior to the pandemic. This is partly due to managing the impact of disruption and learning loss on learner performance and also managing fairness between learners in different years who had different methods of determining their grades. Therefore, for A levels and GCSEs, grading will seek a midway position between 2019 and 2021, meaning, in general, results will be somewhat higher than prior to the pandemic. This year, 2022, is a transitional year and outcomes and standards will likely return to pre-pandemic levels in 2023.

Similarly, for Vocational and Technical Qualifications (VTQs), this summer will be a transitional year and Ofqual has now been clear that for VTQs “we should expect that this summer’s results will look different, despite exams and assessments taking a big step towards normality”. Ofqual has published a blog [What’s behind this summer’s VTQ results](#)

In acknowledgement of the disruption to learning and to support fairness for all learners certificating this summer (some of whom will be competing against learners taking General Qualifications for the same progression and higher education opportunities), we will be taking market consideration, whilst still acknowledging the need to uphold the validity of the qualifications. On this basis, we have made the decision to apply a form of ‘safety net’ through some additional ‘generosity’ to both the theory examinations and synoptic assignments within our Technical Qualifications wherever appropriate, (noting that it may not be appropriate to apply where there is a clear impact on knowledge and skills to practice, particularly health and safety requirements or other relevant legislation). We are therefore also reviewing candidate work a few marks below (equivalent to 5% of maximum marks) the Pass and Distinction notional boundaries – the boundaries used during the awarding process as the best representation of maintaining the performance standard from 2019.

The reason for lowering boundaries, where appropriate, by 5% of the maximum marks available, is that it is broadly commensurate with the level of generosity learners are likely to see in General Qualifications at level 2 and level 3. Providing that senior examiners can support the quality of learners’ work seen below the notional boundaries and agree it is sufficient to maintain the integrity, meaning and credibility of the qualifications, the grade boundaries will be lowered across the full set of grades – e.g Pass, Merit, Distinction and Distinction Star.

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Given the circumstances, this is the best approach to take into account the disruption to teaching and learning across every learner in a fair and transparent way, and at the same time maintain the integrity and meaning of qualifications. This approach helps to level our Technical Qualifications awarding approach with that adopted for General Qualifications and other qualifications awarded in England and in the wider UK.

## Spring examination series 2022

Having taken this decision, we are also mindful of learners who have taken components in **Spring 2022** and believe they should also have access to the same level of generosity. For these learners, we wish to adopt a similar approach. Therefore, for learners taking Technical Qualification assessments in spring there will be similar generosity, through the addition of 5% of the maximum mark available for the assessment. It is a different mechanism to that we are using for the summer assessments but provides the same level of generosity to those learners taking assessments in the summer.

# Introduction

This document has been prepared by the Chief Examiner and Principal Moderator; it is designed to be used as a feedback tool for centres in order to enhance teaching and preparation for assessment. It is advised that this document is referred to when planning delivery and when preparing candidates for City & Guilds Technical assessments.

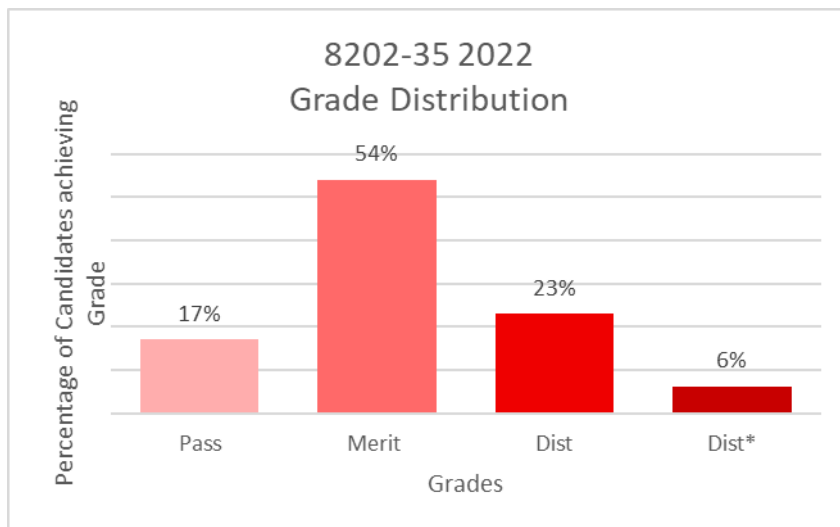
This report provides general commentary on candidate performance in both the synoptic assignment and theory exam. It highlights common themes in relation to the technical aspects explored within the assessment, giving areas of strengths and weakness demonstrated by the cohort of candidates who sat assessments in the 2022 academic year. It will explain aspects which caused difficulty and potentially why the difficulties arose.

The document provides commentary on the following assessments:

- 8202-035/535 Level 3 Plumbing – Theory Exam (1)
  - March 2022 (Spring)
  - June 2022 (Summer)
- 8202-036 Level 3 Plumbing – Synoptic Assignment (1)

# Qualification Grade Distribution

The grade distribution for this qualification is shown below:



This data is based on the distribution as of 31 August 2022. Data is rounded to the closest whole number.

Please note City & Guilds will only report qualification grades for candidates who have achieved all of the required assessment components, including Employer Involvement, optional units and any other centre assessed components as indicated within the Qualification Handbook. The grade distribution shown above could include performance from previous years.

# Theory Exam

## Grade Boundaries

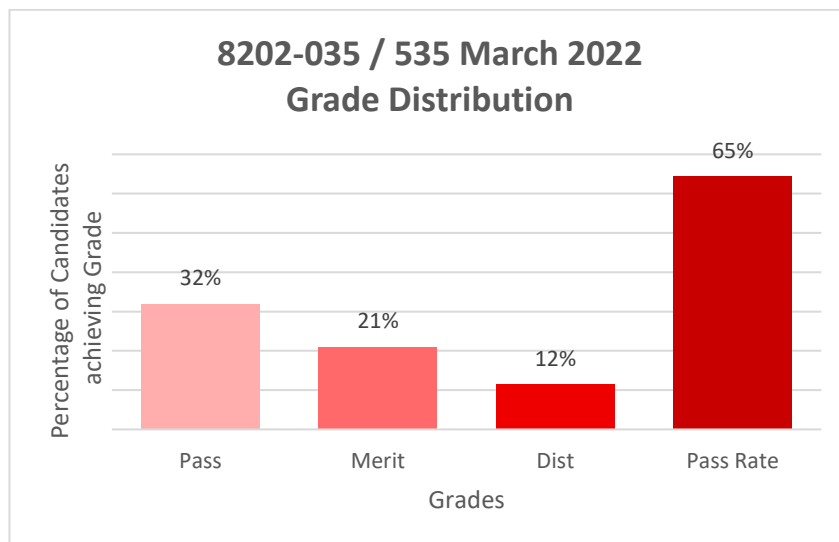
Assessment: 8202-035/535  
Series: March 2022 (Spring)

Below identifies the final grade boundaries for this assessment, as agreed by the awarding panel:

<b>Total marks available</b>	<b>60</b>
Pass mark	24
Merit mark	34
Distinction mark	44

The generosity applied to the summer assessments will also retrospectively be applied to candidates who achieved their best result in spring. 5% of the base mark of the assessment will be added to their score rather than applied to boundaries.

The graph below shows the approximate distributions of grades and pass rate for this assessment, it does not account for any marks that have been amended due to generosity:

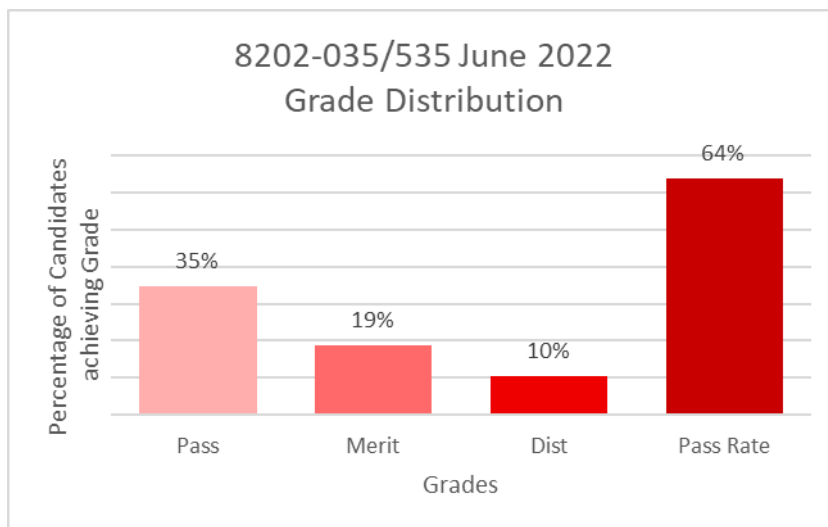


Assessment: 8202-035/535  
Series: June 2022 (Summer)

Below identifies the final grade boundaries for this assessment:

<b>Total marks available</b>	<b>60</b>
Pass mark	21
Merit mark	30
Distinction mark	40

The graph below shows the approximate distributions of grades and pass rate for this assessment using the above boundary marks:



# Chief Examiner Commentary

## 8202-035/535 Level 3 Plumbing - Theory Exam (1)

### Series 1 – March 2022

This exam covers units 331, 332, 333, 334 and 335. The exam is set as a mixture of short answer questions and an extended response question.

The questions are broken down into a mixture of assessment objectives that cover the breadth of units examined. These are AO1 (Recall of knowledge), AO2 (Understanding) and AO4 (Application of knowledge and understanding), which is assessed in the extended response question.

868 candidates at this exam, which was a large increase on previous series.

Candidates demonstrated excellent knowledge and understanding in areas where the questions focused on theoretical learning that is directly reproduced in practical sessions, particularly installation and commissioning processes. There were some gaps in responses around processes of planning. This is expected and demonstrates differentiation in understanding concepts and principles across the cohort.

Sections of the examination where performance was strong, included:

- Knowledge and understanding of Water Regulations.
- Underpinning Knowledge of Unvented Hot water.
- Installation process of Macerators.

Sections of the examination where candidates' performance could be improved, included:

- Sanitation installation and in the understanding of technical terminology.
- Boosted and Cold-Water storage principles.
- Operating principles of systems including Low Loss Headers.

Candidates appeared to be well prepared for the extended response question and in general performed well. Performance could be further enhanced by preparing candidates to consider in-depth explanations on the process and sequence of activities.

The exam allowed for candidates to demonstrate a broad range of subject knowledge within the qualification.



The performance of candidates was consistent with expectations across all boundaries. For example candidates that met the pass criteria performed reasonably well on AO1 Recall questions, with less of a depth of understanding and ability to produce AO2 and AO4 responses with the depth of knowledge required.

The range of subjects covered in the exam was broad, with the vast majority of candidates attempting all questions. This indicates a varied range of knowledge of installation application, knowledge and understanding demonstrated by the candidates overall.

In conclusion, candidates should be reminded of the need to ensure they fully read and understand all questions before responding. In particular the questions assessing understanding and application of knowledge and understanding. Centres are advised to support their candidates' development with these types of questions.

Centres are also advised to ensure that candidates fully develop knowledge and understanding of working principles of system design and layouts.

Candidates generally performed well on knowledge recall questions, however they would benefit from additional time being spent on confirming understanding of system designs and commissioning process for hot water, heating and sanitation systems to be able to achieve higher marks across the exam.

## Series 2 – June 2022

This exam paper is set as a mixture of short answer (AO1 recall, AO2 understanding) and extended response questions, which were used across the breadth of units examined.

Sections of the examination which candidates found more challenging included:

- Boosted water
- Sanitation
- Commissioning.

A smaller proportion of candidates also found the following subjects challenging:

- Water regulations
- Boosted cold water systems
- Central heating.

This examination allowed for candidates to demonstrate a broad range of subject knowledge across the qualification, which included questions on identification, installation, application, knowledge and understanding. Candidates demonstrated some knowledge and understanding in installation and commissioning processes. There were some gaps in responses around processes of planning - this is expected and demonstrates differences in understanding concepts and principles amongst candidates.

There were signs of good delivery of complex systems, however the responses from some candidates lacked clarity. Candidates were able to demonstrate some knowledge, however they should be encouraged to develop depth and clarity in responses in order to answer the question fully and access higher mark ranges.

It is clear that during revision there has been a large emphasis on the systems and component types but not necessarily as much emphasis placed on the operational principles to which candidates are expected to have a sound understanding.

Although candidates have shown good breadth and depth of knowledge, there are areas where improvements can be made, such as improving the technical terminology used in their responses, making sure it is present and relevant. It is strongly encouraged for candidates to develop their understanding of what type and level of responses are expected from different command verbs. For example, responses to “Explain...” questions require an explanation with linked reasoning in the response, rather than discrete bullet points.

Another area for improvement is candidates’ knowledge of the functions of different system components and their interactions with each other. These areas should be developed with centres devising their own targeted revision of short answer question and answer techniques. Candidates’ extended response answer techniques would benefit from support from centres, to help them supply sufficiently coherent content within their responses to gain access to the full range of higher marks. Candidates should take particular care to read the extended response question carefully and ensure they answer all elements of the question. Many candidates focussed on particular elements of the extended response question providing a limited breadth, limiting them to lower mark bands. This should be an area for revision for both candidates and centres, focusing not only on the subject knowledge but also how to respond to the question type.

# Synoptic Assignment

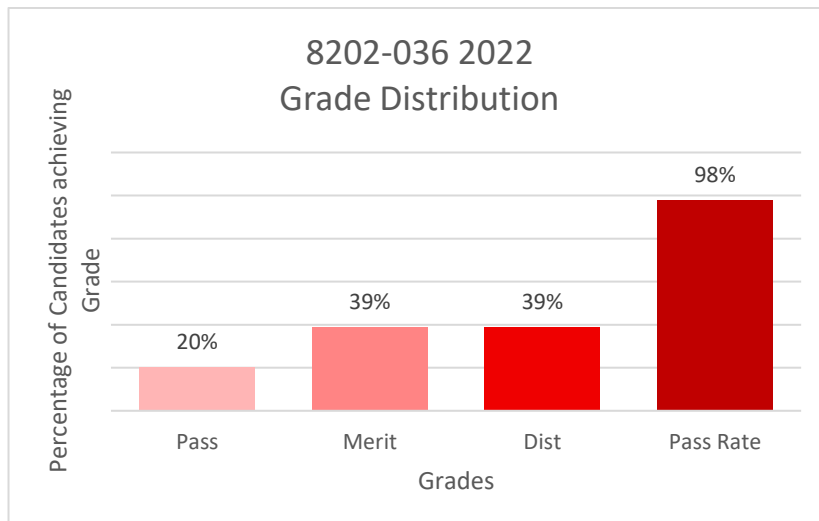
## Grade Boundaries

Below identifies the final grade boundaries for this assessment:

Assessment: 8202-036  
Series: 2022

<b>Total marks available</b>	<b>60</b>
Pass mark	20
Merit mark	30
Distinction mark	40

The graph below shows the approximate distributions of grades and pass rate for this assessment using the above boundary marks:



## Principal Moderator Commentary

Candidate performance across the qualification was generally good with candidates completing a range of activities across the synoptic that gauged their breadth of knowledge and practical skills.

There was a large increase in volume of centres and learners undertaking the qualification since the last full moderation series in June 2019.

Moderation support visits were carried out to all centres to give guidance to centres on how to complete the synoptics and how to effectively use the marker guide – these have resulted in a greater understanding of the synoptic grading and banding process in centre marks. This, coupled with a greater understanding in issuing marks between different AO outcomes, has seen centres more aligned this year than in previous series. In general, the level of skills was accurately recorded in the marking scheme by the centre markers in the samples moderated.

The evidence supplied by centres, for the candidates entered, was robust and generally provided good supporting evidence for synoptic assessment taken. This included good use of photographic support materials which aided moderation.

Overall centres have a very good understanding of the delivery and assessment of the qualification.

Report writing tended to be the most challenging aspect tended compared with task completion across the cohort.