

MechNEWS

Sept. / Oct. 2005

Welcome

Welcome to the Sept./Oct. issue of MechNEWS™, a service provided by MechSigma Consulting, Inc. In this issue, we discuss the ASME GD&T certifications. We show the requirements and process for becoming an ASME GDTP-S and an ASME GDTP-T.

We hope you enjoy this issue of MechNEWS™ and continue to [tell your colleagues about it](#).

ASME GDTP Certifications

As most of you are aware, ASME (American Society of Mechanical Engineers) has two certification programs that recognize proficiency in understanding and applying GD&T. The two levels of certification are:



- ASME Geometric Dimensioning and Tolerancing Professional – Senior (ASME GDTP-S)
- ASME Geometric Dimensioning and Tolerancing Professional – Technologist (ASME GDTP-T)



This article shows how to obtain and maintain certification. The official certification process is shown on ASME's website at <http://www.asme.org/cns/departments/AccredCertif/gdtp/>. The information in this article is taken from ASME's website.

We will also address some of the concerns that we have heard from the public regarding the certifications.

Why do we have ASME GDTP Certification?

Prior to these certifications, industry did not have a universal, objective means to determine how well someone understood GD&T. This was a concern when companies needed to hire applicants with knowledge of GD&T. How many times have you run into someone who claims proficiency in GD&T, only later finding out that their knowledge was not at the level you expected?

In our experience, we have worked with companies that wanted to develop their own certifications. For anyone who has tried this, there are many legal issues that must be considered. The process for developing the questions is very rigorous. Oftentimes, companies decide that it is cost-prohibitive to complete this process.

ASME has done this for us. They have teamed with professional test developers at Human Systems Technology Corporation to develop these tests. Their process for validating test questions includes:

- Following a specific process for writing each test question
- Testing each question prior to including it in the test score, and
- Ensuring that each question can be backed up by the standard

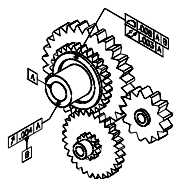
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Engineering Services and On-Site Training

Having problems with your designs?



MechSigma offers consulting and on-site training in mechanical tolerancing and GD&T.

Contact us at: info@mechsigma.com

Events:

The next GD&T committee meeting is scheduled for the week of May 1, 2006. These meetings are open to the public.

Please contact ASME for more information.

For those of you who have worked on certification tests before, you know that there are many other issues that must be addressed. Suffice it to say that ASME representatives, technical subject-matter experts, and the test developers have spent thousands of hours developing the tests. Additionally, this group also meets at least twice a year to continually improve the tests.

The Tests

The following table summarizes each test. The key differences between the tests are:

- The *technologist* level emphasizes *knowledge* of GD&T principles, concepts, and practices in accordance with the current ASME Y14.5 standard.
- The *senior* level emphasizes *knowledge, selection, and application* of GD&T principles, concepts, and practices contained in the current ASME Y14.5 standard and appendices.

Topic	Technologist Level Body of Knowledge	Senior Level Body of Knowledge
Scope, definitions, and general dimensioning	10%	10% will cover topics from the Technologist's Level Body of Knowledge
General tolerancing and related practices; and former practices included in Appendix D of ASME Y14.5.	10%	
Symbology	5%	
Datum referencing	15%	
Tolerances of location	30%	
Form, profile, orientation, and runout	30%	
Datum selection		20%
Geometric tolerancing & related principles, tolerance calculation, and appendices		40%
Application of modifiers in feature control frames		15%
Composite tolerancing		15%
Test Length	4 hours	6 hours
Number of questions	100 to 150 questions	100 to 150 questions
Passing Grade	75% grade overall and at least 50% in each of the above categories	80% grade overall and at least 50% in each of the above categories
Test Format	Closed book, multiple choice	
Test Fee	\$360	

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Public Courses

We are putting together our calendar for next year's public offerings. If you would like for us to offer our three-day **GD&T** course or our two-day **Mechanical Tolerancing for Six Sigma (MTSS)** in your city, please [let us know](#).

Our next **Mechanical Tolerancing for Six Sigma** course offering through ASME's Continuing Education Institute is scheduled for April 6 -7, 2006 in Las Vegas. Please [contact ASME](#) to register.

Application Process

If you want to take either certification test, the first step is to download an application at: <http://www.asme.org/cns/departments/AccredCertif/gdtp/application.htm>.

Mail your completed application with appropriate fees (\$360.00) to ASME. Upon acceptance of your application, ASME will send you a unique identifying number. Once you have your ID number, you can set up a test time and date with a convenient Prometric Test Center. (See the next section for information on Prometric.) ASME will notify you of your results within 30 days of your test date.

Where Do I Take the Tests?

ASME has teamed with Thompson Prometric to administer the certification tests. Prometric has a network of more than 250 testing centers in the United States and 15 in Canada. This makes it convenient for anyone to take either test at his or her convenience. Simply identify a location near you and take the test on a date that you identify.

To locate a test center near you and/or schedule an exam, go to <http://secureg3.prometric.com/> and follow these steps.

1. Select 'Academic, Professional, Government and Corporate' from 'Area of Study' drop down menu.
2. Select 'ASME – American Society of Mechanical Engineers' from 'Testing Program'
3. Choose a 'country' and 'state.' Click 'Next.'
4. Select 'Schedule an Exam.'
5. Select 'CERT OF GEOM DIMEN & TOLERANCING, SL' for Senior GDTP, or 'CERT OF GEOM DIMEN & TOLERANCING, TL' for Technologist GDTP from the 'Exam Selection' drop down menu. Click 'Next.'
6. Next to the preferred site, select 'Schedule Appointment.'
7. Enter your eligibility ID to continue registration.

Certificate Term

After passing the test, the certifications for both Technologist and Senior Level are good for three years. Re-certification to the same edition of Y14.5 may be renewed without examination upon verification of involvement with GD&T for at least 24 of the previous 36 months.

Summary

The ASME certifications are a great way to standardize the knowledge and/or application of GD&T. Those who have passed either test are part of an elite group of people who can claim a knowledge and understanding of the ASME Y14.5 standard. Sometimes we hear complaints that some certificate holders are not the best at using and deploying it. Unfortunately, this is true of all certifications. It is also true of all degree programs. Just because someone has a degree in mechanical engineering does not mean he/she will be a good mechanical engineer. It is, however, a stepping-stone to becoming a great mechanical engineer. Likewise, successfully passing a GD&T certification will not necessarily make someone a great GD&T practitioner. It is, however, a great springboard to achieve that goal.



Joke of the Bi-Month?



Mildred, the church gossip, and self-appointed monitor of the church's morals, kept sticking her nose into other people's business. Several members did not approve of her extra curricular activities, but feared her enough to maintain their silence. She made a mistake, however, when she accused George, a new member, of being an alcoholic after she saw his old pickup parked in front of the town's only bar one afternoon. She emphatically told George and several others that everyone seeing it there would know what he was doing.

George, a man of few words, stared at her for a moment and just turned and walked away. He didn't explain, defend, or deny. He said nothing.

Later that evening, George quietly parked his pickup in front of Mildred's house, walked home, and left it there all night.

Don't ya just love ol' George?