CAM Certification Tests

The CAM certification tests are intended to support the CAM software suppliers in their post-processor developments for DECOs [a-line]. Through these tests Tornos evaluates the ability to program various types of machining processes and to generate an error-free TB-DECO program.

Tests included in the certification

The certification is limited to three workpieces programmed on DECO 13a. These three workpieces require a large number of machinings to best evaluate the CAM software's capabilities. On the other hand, the certification does not cover all the machining processes performable on the DECOs [a-line]. In addition, it does not guarantee that a second post-processor dedicated to another DECO model [a-line] can generate a similar TB-DECO program without error. However, the certification allows guaranteeing to Tornos customers a high level of competence in terms of the CAM software supplier to program the DECOs [a-line].

Certification awarding

Certification is delivered to the CAM software supplier as soon as the CAM software has generated three TB-DECO workpiece programs and these programs have been used to machine the workpieces corresponding to the Tornos supplied drawings. If the CAM software cannot program a particular machining, it may however use another machining to produce the same form in order to obtain Tornos certification.

The position of the tools, the exact sequence of the operations, as well as the workpiece cycle time, are not the criteria evaluated during these tests. However, to aid the CAM software suppliers, an operating range and a tool line were defined for each of the three workpieces. The three TB-DECO programs developed by Tornos for certification were also made available to the CAM software suppliers.

Result of the certification tests run on DECO 13a		Test workpieces	**CAM Software**				
			Esprit	**Gewatech**	**GibbsCAM**	**PartMaker**	**SylvieXpert**
Certification award date	(month / year)		03 06	–	–	04 06	03 06
Latest update's date	(month / year)		03 06	–	–	04 06	03 06
Workpieces							
Short workpiece		1,3	●			●	●
Long workpiece with jaw		2	?			●	?
Long workpiece pickoff spindle		2	●			?	●
Long workpiece 3-position guidebush		–	?			?	?
Operations							
Selection of the right icon for each operation		1,2,3	●			(●)	●

Result of the certification tests run on DECO 13a	Test workpieces	CAM Software				
		Esprit	**Gewatech**	**GibbsCAM**	**PartMaker**	**SylvieXpert**
Utilization of the conditional synchronizations	1,2,3	●			●	●
In-parallel roughcast + finish turning	2	●			●	●
In-parallel front-work machinings + turning	–	?			?	?
Main work machining with support of pickoff spindle[1]	2	●			?	●
Tools						
Selection of the right tool	1,2,3	●			●	●
Selection of the standard geometrics	1,2,3	●			●	●
Compensation of the tool radius G41 and G42	2	●			●	●
Selection of the quadrant	2	●			●	●
Indexing of the tools in masked time	1,2,3	●			●	●
Indexing of the tools with power optimization	1,2,3	●			●	●
High possibility of retraction for bulky tools	3	●			●	●
Machinings						
Asynchronous cut (on main workgang 1 or 2)	2	●			●	●
Synchronous cut (on main workgang 1 or 2)	1,3	●			●	●
Selection of the work plane (G83, G84, G85)	3	●			●	●
Threading by tool	1,2	●			●	●
Threading by whirling	3	●			●	●
Bore	3	●			●	●
Oriented drilling / milling	1,2,3	●			●	●
C axis (cylindrical coordinates)	1	●			●	●
Polar coordinates (transmit)	1	●			●	●
Polygoning	1	●			●	●
Constant cutting speed G96	–	?			?	?
Deep drilling (with high pressure pump)	3	●			●	●
Front work machining at T3_ with moving of the Z3 axis (G915)	1,2,3	●			●	●
Front work machining at T3_ with moving of the Z1 axis (G915)	2,3	?			●	?

Legends

● Programming tested and validated by Tornos
? Programming not tested by Tornos
● Programming not supported by the CAM software

Workpiece1: DEMOCAM1
Workpiece2 : DEMOCAM2
Workpiece3 : DEMOCAM3

[1] Travel tracking

Conforms to the European CE/CEM Safety Standards

This document is based on information available at the time of this publication. While efforts have been made to be accurate, the information contained herein does not purport to cover all details or variations in hardware and software, nor to provide for every possible contingency in connection with installation, operation and maintenance.

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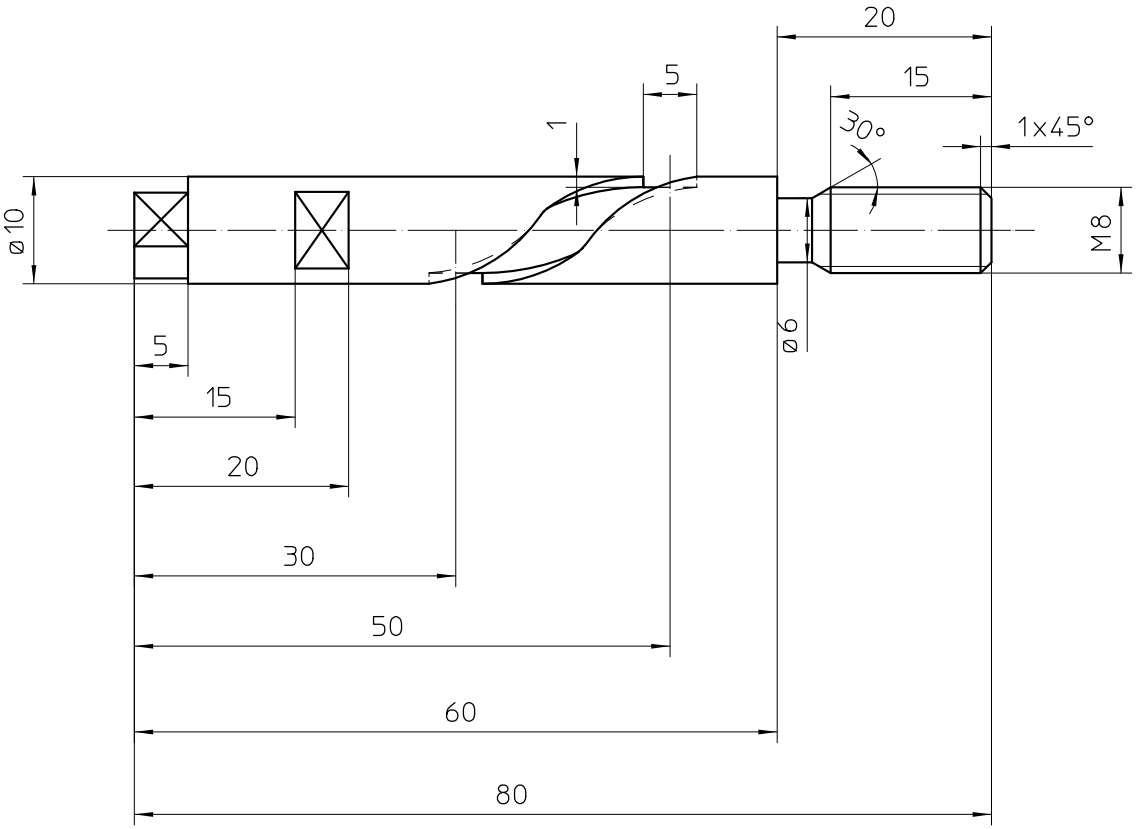
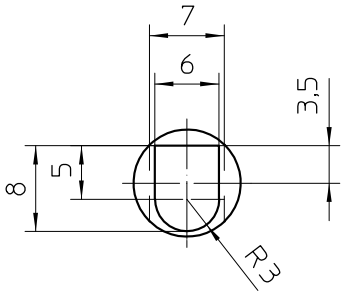
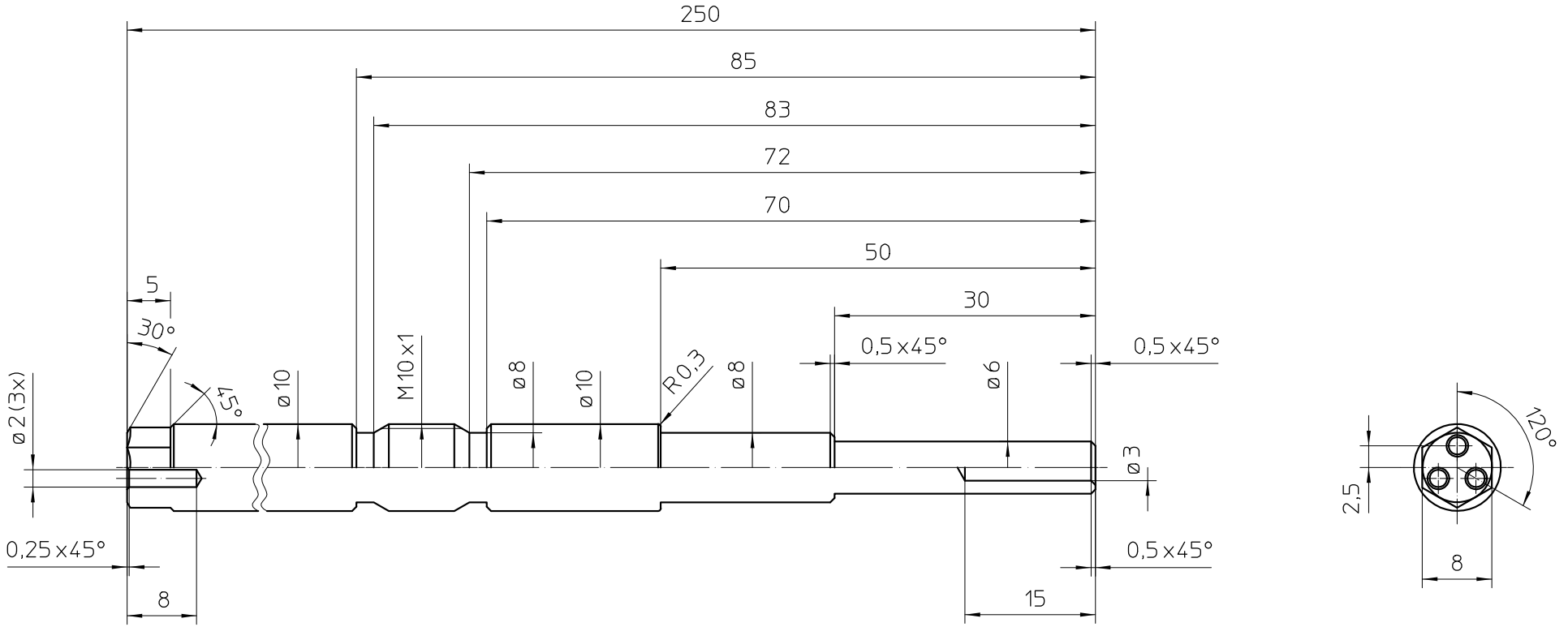




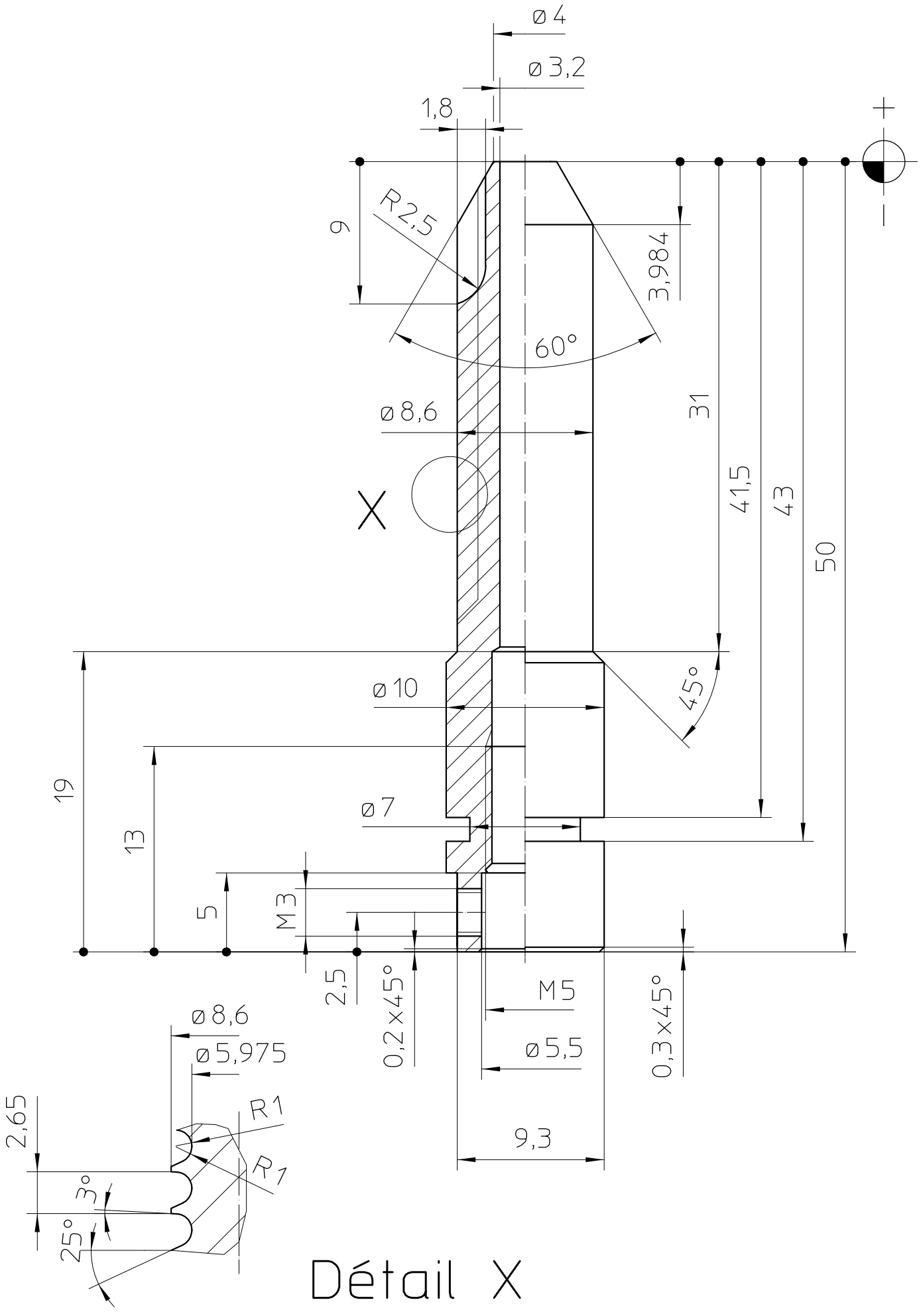
Matière:Laiton ø 10mm

Luedi / 26.04.2005



Matière: 9 S Mn Pb 36 ø 12mm

L.L./ 29.04.2005



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