

Technical Definition

Machining test – Inconel 718

You shall respect the HSE policy of your laboratory for each performed test.

Instructions to participant laboratories

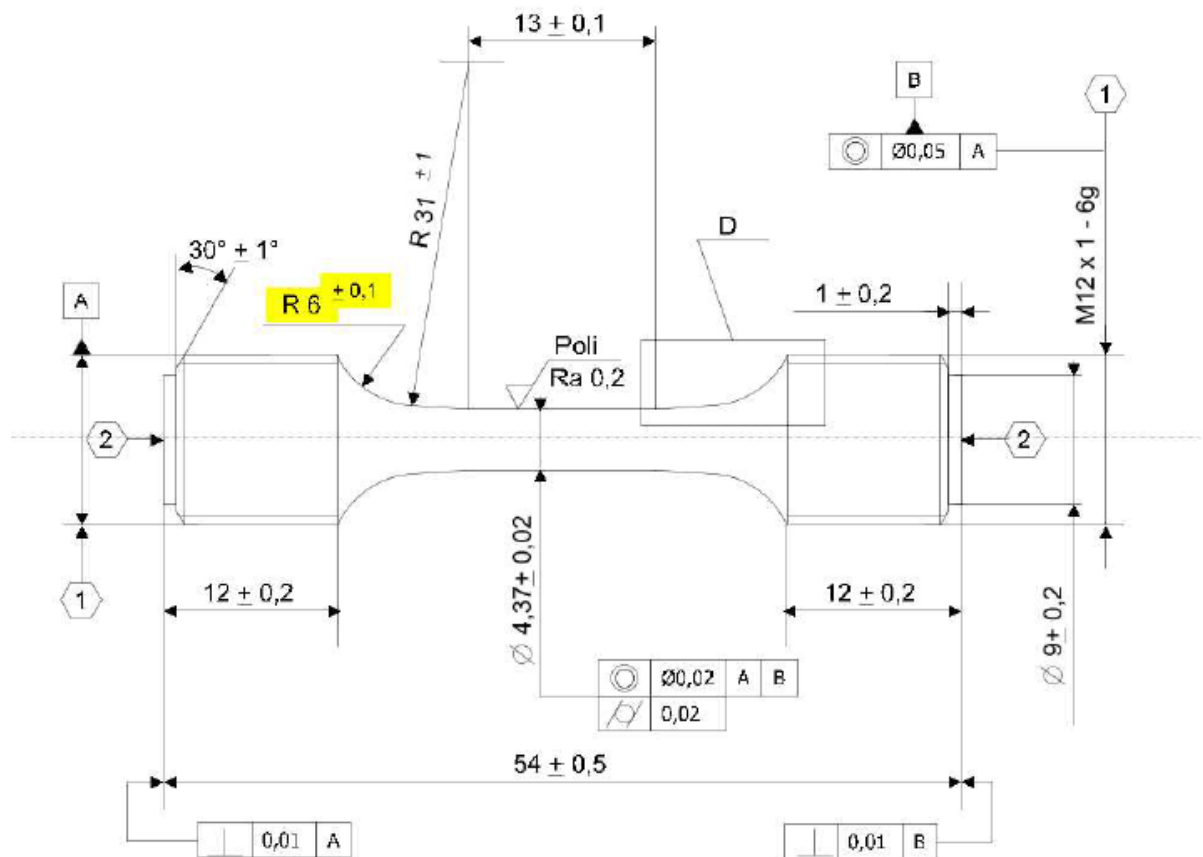
Please read these instructions carefully BEFORE starting the tests.

- Three blanks (\varnothing 16 x 75 mm) are supplied to each participant – three machined samples must be **sent back to PTP**.

In case of :

- loss or deterioration of PTP sample(s) please contact your sponsor for a replacement.

- The specimens shall be machined according to the drawing **485-920-525-0** :



1

\varnothing EXT 11,974 / 11,794
 \varnothing on the flanks: 11,324 / 11,209
 \varnothing INT max 10,891

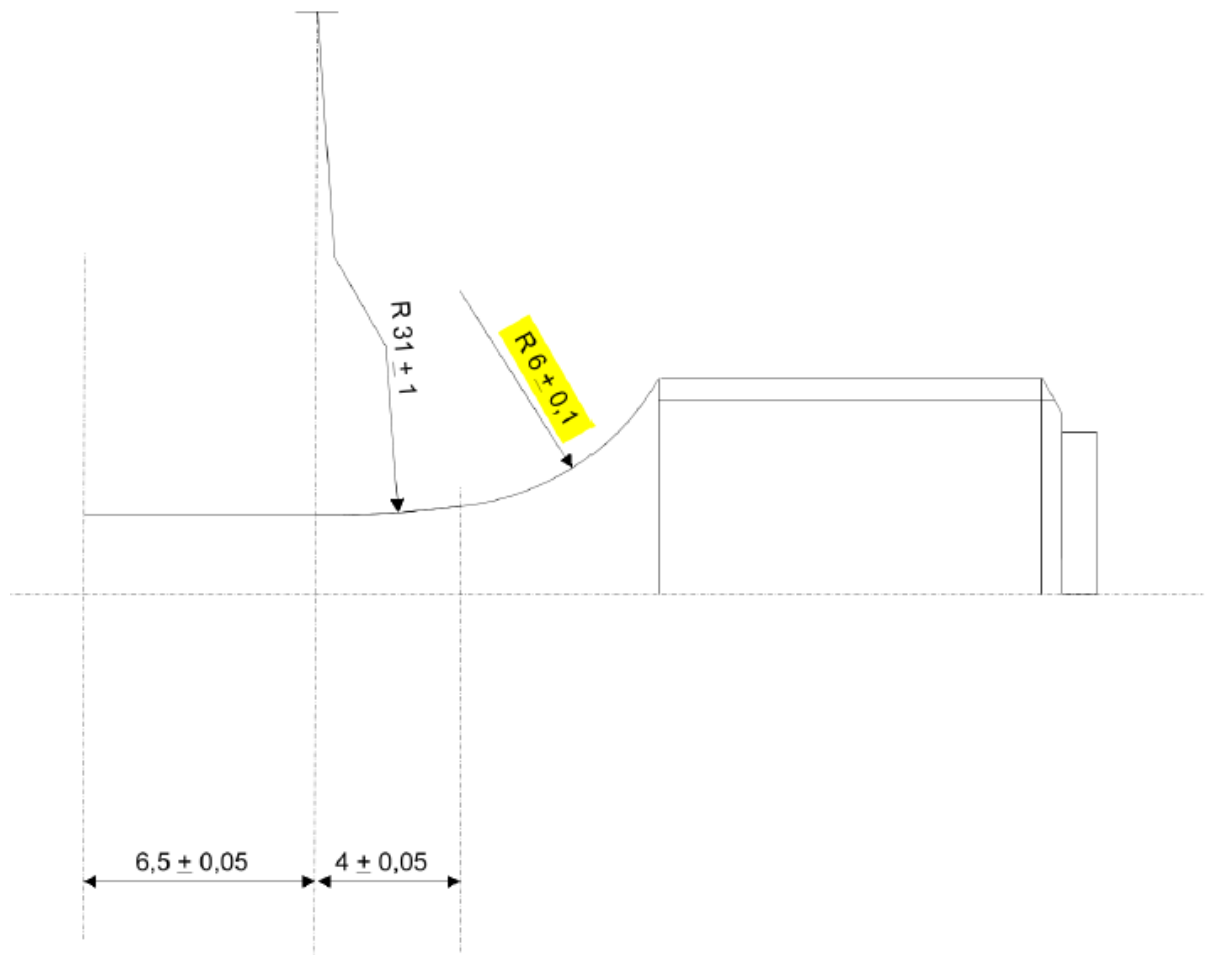
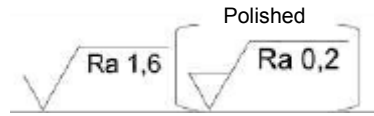
2

Center holes
 ISO6411 – A1,6/3,35

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Geometric surface finish



Note : R6 must be tangent to R31

- The machining shall be performed respecting the following conditions:
 - One operator only
 - One machine only
 - Machining performed in sequence

Revision No. 1	Page 3 of 5	Technical Definition Machining test – Inconel 718
		
Kit 14-1 2020 PTP Metallic		

4. The following information is to be reported:

Characteristic	Unit	Significant digits	Mandatory / Not mandatory	Evaluated Yes/no
Machining mode: <ul style="list-style-type: none"> • Turning + Grinding + Polishing • Grinding + Polishing (without turning) • Turning + Grinding (without polishing – explain why) • Turning + Polishing • Other (to be described) 	N/A	N/A	Mandatory	No
Reference and index of the machining and polishing scales	N/A	N/A	Mandatory	No
Tool condition: <ul style="list-style-type: none"> • Brand new • Mid life • End of life 	N/A	N/A	Mandatory	No
Diameter before and after grinding	mm	X,XXX	Mandatory	No
Diameter before and after finish turning for machining mode without grinding	mm	X,XXX	Mandatory	No
Diameter before polishing	mm	X,XXX	Mandatory	No
Paper grade(s) and type	N/A	N/A	Mandatory	No
Polishing parameters	N/A	N/A	Mandatory	No
Diameter after each paper grade	mm	X,XXX	Mandatory	No
Thread control at the control ring	N/A	N/A	Mandatory	No

Packaging and specimen traceability will be checked by PTP.

An independent laboratory will perform a full dimensional control.

An independent laboratory will perform **surface residual stress measurements** (3 locations per specimen).

Dimensional control will be evaluated against the expected tolerances.

Residual stress values will be analysed according to the algorithm A and S (ISO 13528 – 2015) and evaluated using z-score (this method analysis is subjected to change based on the sponsors criteria).

5. Machining shall start **as soon as test specimens are received**. Please contact the following e-mail address for any technical or administrative query.

Deadline for receipt of machined specimens :	June 1st, 2020
Technical and administrative support :	info@ptpscheme.com

Machined samples received after the deadline will not be taken into account for this scheme.


Revision No. 1	Page 4 of 5	Technical Definition Machining test – Inconel 718
		
Kit 14-1 2020 PTP Metallic		

6. Instructions for submission of results are detailed on the website:

<https://ptpscheme.com>

7. To ensure the confidential treatment of your results in the final report, you will be allocated a unique identity number when you register for the program.
8. Collusion and falsification of your PTP results are totally forbidden. In case of identification or suspicion of collusion or falsification, the laboratory will be excluded from the program and the sponsors will be immediately informed. The sponsors could ask you proofs of your records and analyses, so be sure to conserve data, curves and specimens.
9. Machined specimens shall be sent back before **June 1st, 2020** in an appropriate packaging and identified with your confidential number (MET-2020-XXXX) to :

PTP
17 Avenue Didier Daurat
Immeuble Thalès
31700 BLAGNAC
France

Revision No. 1	Page 5 of 5	Technical Definition Machining test – Inconel 718
		
Kit 14-1 2020 PTP Metallic		

APPENDIX : Instructions for IRR participation

The Internal Round Robin participation (IRR) is **optional** and **independent** from your PTP participation.

Confidentiality: The IRR results and reports are confidential and only accessible by your laboratory. They are not shared with the scheme sponsors or any other accreditation or certification bodies.

The extra samples shall be tested according to the following table:

	Operator 1	Operator 2	Operator 3	Operator 4	Operator X
Test machine 1	PTP kit (3 samples)	1 sample	1 sample	1 sample	1 sample
Test machine 2	1 sample				
Test machine 3	1 sample				
Test machine Y	1 sample				

Operator 1 (OP1) is to be the most experienced operator currently conducting tests on a regular basis and shall perform tests on all machines (TM1, TM2, TM3...)

Test Machine 1 (TM 1) is to be the most utilised machine for this test in your laboratory and shall be tested by all operators (OP1, OP2, OP3...)

Example: A laboratory has 2 operators and 3 test machines. They receive a PTP kit and 3 extra specimens.

Operator 1 shall test the PTP kit on TM1, 1 specimen on TM2 and 1 specimen on TM3.

Operator 2 shall test 1 specimen on TM1.

The IRR results have to be submitted on a separate results form available on the PTP website.

The identification of operators and test machines you provide will appear on the IRR final report. These identifications will not be seen by other laboratories.

The IRR results will be classified against the acceptance classes of the kit 14-1-2020.

Reminder: Laboratories are not permitted to switch specimens between the PTP kit and IRR samples. The traceability of the samples will be checked during the evaluation. Laboratories found to have switched samples will invalidate their PTP participation.

REVISION HISTORY

Issue Date	Issue N°	Changes
09/01/2019	1	Document creation