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# Quality Insurance File

## « PRODUCTION LINE »

# CONVOLUTED TUBING

Norms : Automotive specification

Redactor name & visa

Audrey PIERRE



Acceptance Name & visa

Christine WEISSER



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Definition :                      **IC** = important characteristic

## Updating of the Control plan Convoluted tubing

Date	Name	Modification	Index
24/07/1995	A. GROSSOT	Document creation	A
27/11/1995	P. LENGRAND	Conspectus updating + DFMEA	B
13/02/1996	A. MIBORD	Addition interfaces between plants on synoptic of fabrication. Reformatting of document	C
15/01/2000	A. AMORIN	<ul style="list-style-type: none"> <li>- Addition of the « SERIES » status,</li> <li>- Addition of procedures and instructions references,</li> <li>- Modification of Manufacturing sheet on an IT following Sheet,</li> <li>- Addition of special characteristic identification on a summary plan,</li> <li>- Addition of the frequency of Process &amp; Product audits</li> <li>- Modification of the summary Plan : addition of MSP followup.</li> </ul>	D
28/05/2001	E. LAMBERT	<ul style="list-style-type: none"> <li>- Addition of the regulation acronym on the first page.</li> <li>- Modification of the control sheet : addition of the interior aspect and removal of the extension breaking test</li> <li>- Modification of the control chart : addition of Fire resistance, Interior aspect ,</li> <li>- Modification on the back of the control chart : addition of Fire resistance, Interior aspect , checking of the anti -error systems.</li> </ul>	E
09/01/2008	A. PIERRE	Updating of QIF	F

# UPDATING OF THE MANUFACTURING PROCESS

*The DELFINGEN Company promises to respect the manufacturing process and procedures described in this document, which are the basis of the mutual trust between its customers and our company.*

*If a fundamental change should happen in that process; either because of an evolution of our lines, of our machines, or because of an important structure modification or any other main change likely to happen about the quality of the mentioned products, we commit ourselves to inform our customers' Purchase Quality Insurance Department immediately through the buyer.*

*The quality manager,*

*M. Philippe LENOIR*

# Manufacturing and control conspectus for convoluted tubing

R  
E  
C  
E  
P  
T  
I  
O  
N

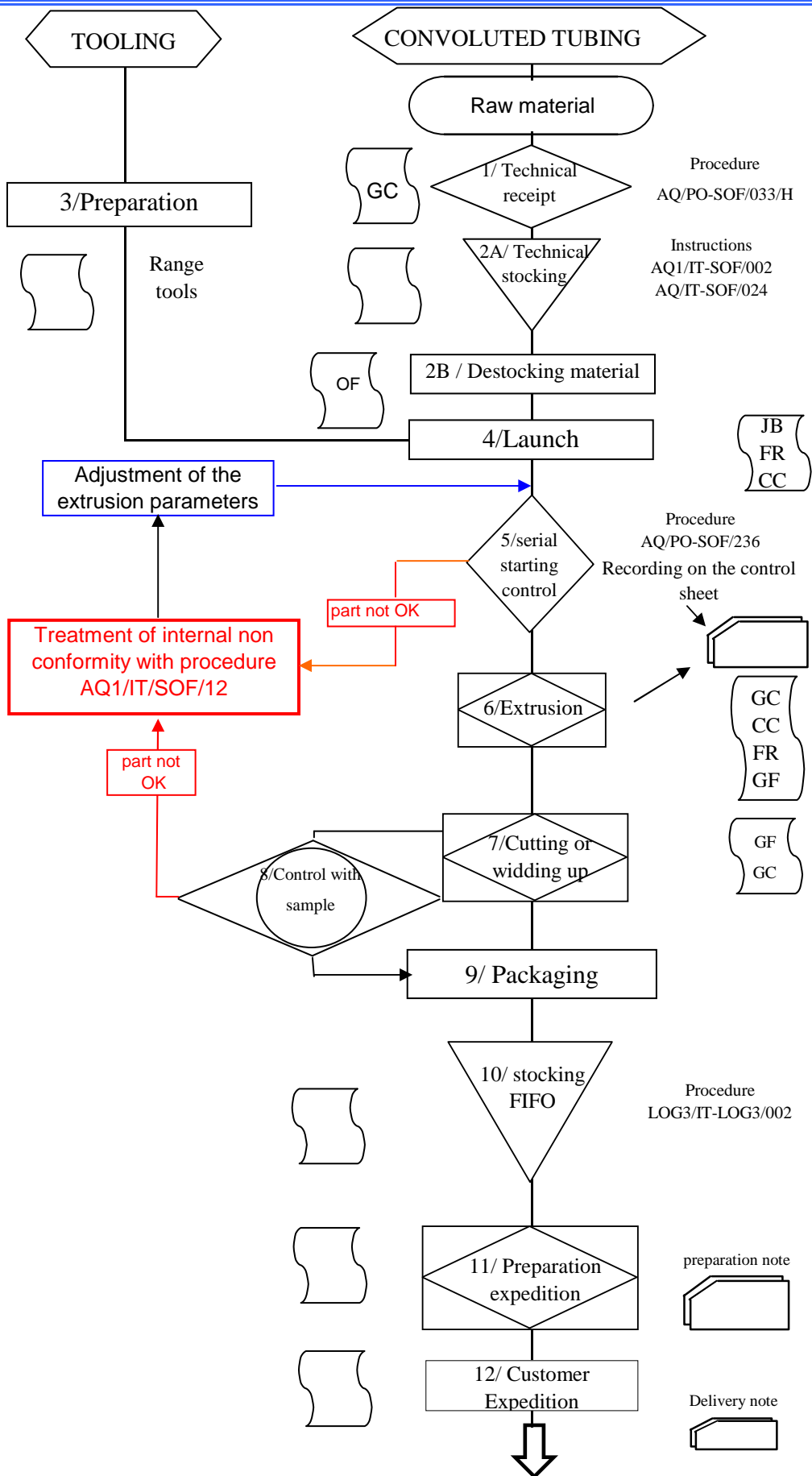
**Control  
and  
material  
receipt and  
tool  
prepara-  
tion**

E  
X  
T  
R  
U  
S  
I  
O  
N

**Extrusion  
phase**

L  
O  
G  
I  
S  
T  
I  
C

**Stocking -  
Expedition**

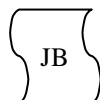


# Manufacturing and control conspectus for convoluted tubing

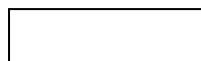
## Lexicon



**Reference documents**



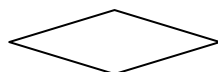
Log book



Manufacturing operation  
Ex : Injection, Extrusion, Assembling



Manufacturing order



Control operation made  
by a supervisor



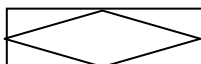
Manufacturing sequence sheet



Control operation with sample



Adjustment sheet



Manufacturing operation  
with self control



Control chart



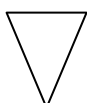
Control of production mean



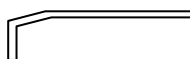
Control sequence sheet



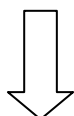
Control of production mean  
with calibration



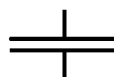
Storage



Archiving

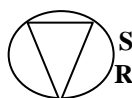


Transport, shipment

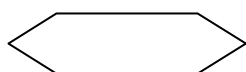


Awaiting

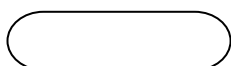
..... geographical limit of a manufacturing plant



Safety part and /or  
subject of regulation



description and /or number of part or material



Administrative and physical receipt of raw material, a purchased part  
or a finished or semi-finished product  
Description of its state at receipt

## **FINAL CONTROL**

A process and product audit plan exists in accordance with Europe DELFINGEN procedure AQ/PO-SOF/008/I « **Internal Quality Audit** », which defines the frequency and the perimeter of these audits.

## **USE AND IMPLEMENTATION RECOMMENDATIONS**

Available near our service « Research and development ».

## **TRACEABILITY**

The traceability is ensured throughout the manufacturing process from the material receipt to the delivery to the customer. In case of dispute, the information indicated on GALIA manufacturing label should be sent to us

- ⇒ Machine number
- ⇒ Operator number
- ⇒ Manufacturing date
- ⇒ Label number
- ⇒ Batch number