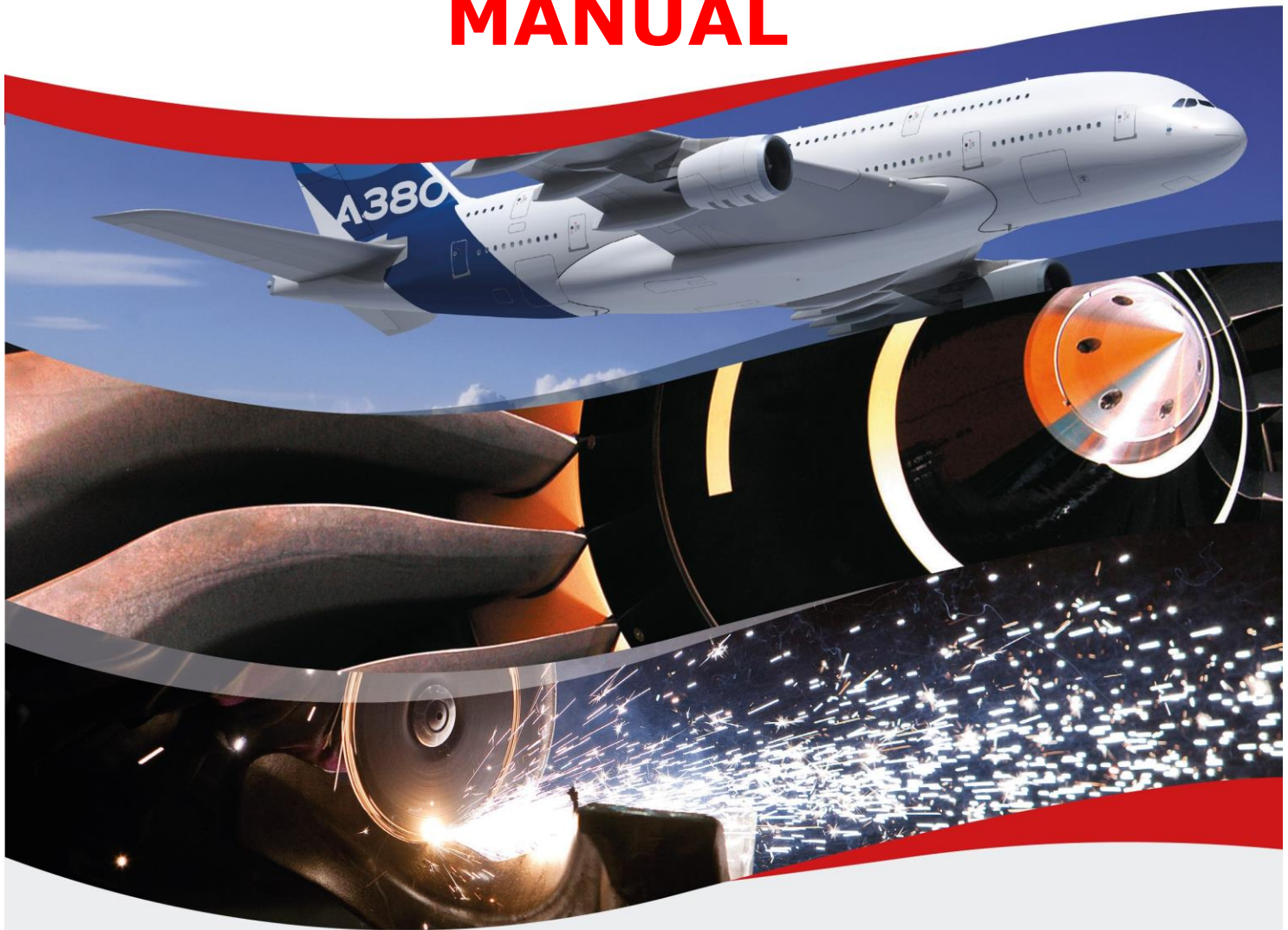


AUBERT&DUVAL



# QUALITY MANAGEMENT MANUAL



## ENHANCING YOUR PERFORMANCE

DÉVELOPPER VOTRE PERFORMANCE

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MMQ.AD Issue dated 2017/10/23

# HISTORY PAGE

Date	Chapter	Objet
2017/10/23	1 4 7 8, 9, 10 et 11	Update scope Standards update Deletion of MKAD Interested parts list addition Update of the history. Update of the organisation Update of map of processes: Deletion of S10 and M1-SU processes
2016/10/01	1 7 8, 9, 10 et 11	Deletion SUPA and add MKAD Update of charts « A&D organization chart » Update of map of processes: C1 processes
2015/10/01	1 2 3 4 6 7 8, 9, 10 et 11	Update of the Nuclear industry standards Add procedures references for control of Nonconforming Product Commitment of the corporate management evolution Update of main industrial resources. Update of the history. Update of certificates title Update of charts « A&D organization chart » Update of map of processes : Initial release of M1-SU processes Deletion of § « Correspondences between processes and chapters of standards ISO9001, EN9100 et EN9120 »
2013/11/14	1, 5, 6 et 7 2 7	AIRFORGE integration into AD Gennevilliers plant closure Update of Quality Policy Update of charts « A&D organization chart » Deletion of charts « A&D commercial organization » and « AD Industrial Organization »
2013/04/01	1 7 8, 9, 10, 11 et 12	Corrections Charts updated « A&D commercial organization » Map of processes updated : Initial release of C2-SC processes
2012/11/12	1, 5 et 6 2 3	Add SUPA Add procedures: AD / DQ-P044 « Management of internal audits» et AD / DQ-P046 « Corrective and preventive actions » Commitment of the corporate management evolution Update of main industrial resources.
2011/10/11	7, 8 et 10	Corrections

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# 1. SCOPE AND DOCUMENT STRUCTURE

This Quality Management Manual defines all of the provisions set up by AUBERT & DUVAL in order to fulfil the requirements of the following standards

- ISO 9001 version 2015 for all sites,
- AS9100D / EN9100 version 2016 / JISQU 9100 version 2016 for all sites,
- AS9120B version 2016 / EN9120 version 2017 for Distribution Center of Heyrieux,
- AQAP 2110 edition D Version 1 (2016) for all site

Depending upon the production of particular sites, additional provisions (specific procedures and/or Quality Assurance Plans) make it possible to take account of requirements from the following specific standards:

- Nuclear industry standards: GS-R-3 (AIEA), 10CFR21, RCC-M, NCA 3800 (ASME), ...
- NF EN ISO/CEI 17025 version 2005 for the activity of our COFRAC or PRI-NADCAP accredited laboratories,
- Standards AC7006, AC7101, AC7102, AC7108 et AC7114 for our PRI-NADCAP accredited special processes.

The perimeter concerns all the activities of AUBERT & DUVAL sites and INTERFORGE.

Industrial design, development, melting, alloys remelting, manufacturing, inspection, testing, marketing and sale of metallurgical products , open and close die forgings, stampings, rollings in alloyed and stainless steels, nickel or cobalt-based alloys and superalloys.

Design, manufacturing and sale of all grade products obtained by powder metallurgy.

Industrial design, development, manufacturing, inspection, testing and sale of products open and close die forgings, stampings in titanium and aluminium alloys.

Trade, distribution and warehousing of metallurgical products, open and close die forgings, stampings, rolling in alloyed and stainless steels, nickel or cobalt-based alloys and superalloys, titanium and aluminium alloys.

As our customers are designers of their products, the design according to the § 8.3 of EN 9100 is not implemented in this area.

However the Pamiers, Ancizes, Issoire and Firminy plants are implementing a process of industrial design.

Effective implementation of the commitments relating to Quality Management is performed via processes which are listed in the mapping set out in Chapter 8, which purposes are summarised in Chapter 11, and via procedures which document the application of specific items.

These documents are for permanent application.

Processes take into account the relevant requirements of the interested parties having an impact on the conformance of products and services, which have been identified by the processes' pilots : customers, shareholders, external providers, internal partners, regulatory authorities (Civil Aviation, Nuclear Safety, Defense...), DGA, customs, employees. The challenges and other information relating to these interested parties are reviewed periodically.

Site « Interface Documents » specify the scope, the current process application provisions, the reference to related procedures and, where appropriate, action plans undertaken in the context of continuous improvement.

ANC / DOC.INT 01	Ancizes
HEY / DOC.INT 01	Heyrieux (Services Center)
ADP / DOC.INT 01	Pamiers
ADY / DOC.INT 01	Issoire
ADt / DOC.INT 01	Imphy
FY / DOC.INT 01	Firminy
IF / DOC.INT 01	Interforge

The provisions relating to the writing, updating, in-house and external distribution of the Manual, Interface Documents and of the associated AUBERT & DUVAL processes & procedures are specified in the AD / DQ-P001 procedure and ALL-P-001.

The procedures mentioned below deal with the provisions set up at AUBERT & DUVAL as described:

- AD / DQ-P001 : Management of documents, data and records
- AD / DQ-P044 : Management of internal audits
- AD / DQ-P063 : Corrective and preventive actions
- DQG 13-01 P« Anomalies dealing » (Pamiers)
- DQG 13-01 Y« Anomalies dealing » (Issoire)
- IQG13G10 « Scrap, Non-Conformances and anomalies dealing » (Imphy)
- PG QU 0152 « Non-Conformances dealing » (Firminy)
- ANC27 « Non-Conformances dealing » (Ancizes)
- PQ 05 « Anomalies dealing »(INTERFORGE)
- PG QSE 0012 « Internal anomalies dealing » (Heyrieux)

## 2.COMMITMENT OF THE CORPORATE MANAGEMENT

AUBERT & DUVAL can **design** and **build** integrated solutions which conform to the most stringent regulations, for technically demanding applications in the transport, energy and industrial sectors. Our competent and motivated teams are able to move rapidly to tackle the assignments which they are given. We are already equipped with machines of exceptional capabilities and our additional investment plans will keep our industrial equipment up to the world class standard.

On this basis our **ambition is to be for our customers a worldwide and innovative metallurgical reference.**

To concretize this project we implement every year the Scoping Statement which drives the formulation of the PAP (Progress Actions Plan), the main objectives of which are:

- **Safety:** 0 accident at work.
- **Customer satisfaction** at top level:
  - World-class level of service (> 98%), based on reliable and sustainable logistical solutions,
  - Impeccable Quality according to customers expectations.
- **Sustainable generation of cash**, thanks to a continuously improved operating performance.

Under the direction of the Comex members, each and every manager is tasked with the deployment of the **Quality Policy:**



and the Quality Management team is tasked to report back on:

- The level of accommodation of customer requirements,
- The implementation of our Quality Management Policy,
- The improvement needs which have been identified,
- The operation of those processes listed in our Quality Management System,
- The consolidated Quality indicators.

Denis HUGELMANN  
Chief Executive Officer

# 3. MAIN INDUSTRIAL RESSOURCES

## **MELTING**

- Arc furnaces
  - Secondary ironworks equipments : APC – AOD - VOD
  - Atomizing furnaces
  - Vacuum induction furnaces ( V.I.M.)
  - Electroslag re-melt furnaces (E.S.R.)
  - Vacuum arc re-melt furnaces (V.A.R.)
- 

## **FORGING – CLOSING DIE-FORGING**

- Continuous forging machine
  - Stamp-hammers
  - Forging presses
  - Closed-die presses
- 

## **ROLLING MILLS**

- Long line
  - Short line
- 

## **HEAT TREATMENT**

- Heat treatment workshops
- 

## **FINISHING/ MACHINING**

- Bar finishing workshops
  - Workshops for machining of forgings and closed-die forgings
- 

## **INSPECTION, TEST, CONCEPTION AND RESEARCH LABORATORIES**

- Integrated inspection resources, especially Non Destructive Testing
- Computer-assisted design & modelling equipment (CAD)
- Chemistry laboratory, testing & inspection facilities



## 4. HISTORY

- 2017** Inauguration of EcoTitanium Metallied (Irun - Espagne) becomes Aubert & Duval S.A.U.
- 2016** Inauguration of MKAD, joint venture Aubert & Duval and Mecachrome
- 2012** Inauguration of a new large vacuum induction melting IV30 (Ancizes)
- 2011** Heath Treatment activity is affiliated by the name AD TAF Heath Treatment
- 2008** Creation of the company UKAD 50% of AUBERT & DUVAL affiliated company
- 2007** 100th anniversary of AUBERT&DUVAL and 30th of INTERFORGE.  
Inauguration of Airforge Pamiers
- 2006** Starting of AIRFORGE  
Creation of Wuxi Tools Distribution (China)
- 2004** On June 30th, absorption between ADh, ADa, ADf and ADt and new company denomination AUBERT & DUVAL.
- 2003** Constitution of AIRFORGE company, in Pamiers site, 100% of ADf. affiliated company.
- 2002** Creation, on January 1st, of AUBERT&DUVAL Holding (ADh), whose Head Office is located in Paris, at the Maine Montparnasse Tower, following a merger between AUBERT & DUVAL and HTM.
- ADh is the Holding company for:
- 3 industrial companies whose Head Offices are located at Clermont-Ferrand, La Pardieu and whose products it markets:
    - AUBERT & DUVAL Alliages which combines the sites of Ancizes and of Gennevilliers,
    - AUBERT & DUVAL Tecphy which combines the sites of Imphy and of Firminy,
    - AUBERT & DUVAL Fortech which combines the sites of Pamiers and of Issoire,
  - INTERFORGE whose Head Office is located at Clermont-Ferrand, La Pardieu and the industrial site at Issoire.\*
- 1999** AUBERT&DUVAL and HTM are integrated into the ERAMET group within the Alloys branch.
- 1998** Creation of H.T.M. (Holding de Transformation des Matériaux: Materials processing holding company) becoming the holding company for the following companies: FORTECH, TECPHY, INTERFORGE.
- 1991** Creation of FORTECH (Issoire & Pamiers)
- 1989** Creation of TECPHY (Imphy & Firminy)
- 1977** Opening of INTERFORGE 65Kt press (Issoire)
- 1938** Creation of Forgeal (Issoire)
- 1926** AUBERT & DUVAL integrates Les Ancizes facilities
- 1919** Creation of Gennevilliers plant
- 1907** Creation of AUBERT & DUVAL Company
- 1829** Creation of Firminy plant
- 1818** Creation of Pamiers plant
- XVIème** Creation of Imphy plant

*\* INTERFORGE operates, for AUBERT & DUVAL, the 65 kt press as well as peripheral associated activities (heat treatment...) based on instructions given by AUBERT & DUVAL who is in charge of the orders issued by the AUBERT & DUVAL customers. INTERFORGE never sales products directly to AUBERT & DUVAL customers.*

# 5. PLANTS LOCATION



**Head office**  
**Tour Maine Montparnasse**  
 33, Avenue du Maine  
 75755 Paris Cedex 15  
 Tel : 33 (0)1 45 38 38 61



**Ancizes Plant**  
 BP 1  
 63770 Les Ancizes  
 Tel : 33 (0)4 73 67 30 00



**Issoire Plant**  
 BP 45  
 63502 Issoire Cedex  
 Tel : 33 (0)4 73 55 54 00



**Pamiers Plants**  
 75 boulevard de la libération - BP 173  
 09102 Pamiers Cedex  
 Tel : 33 (0)5 61 68 44 00.



**Imphy Plant**  
 Avenue Jean Jaurès - BP 02  
 58160 Imphy Cedex  
 Tel : 33 (0)3 86 90 74 00



**Head office**  
**Parc Technologique La Pardieu**  
 6 rue Condorcet  
 63063 Clermont-Ferrand Cedex 1  
 Tél 33 (0)4 73 28 75 28



**Firminy Plant**  
 Rue du Colonel Riez - BP 141  
 42704 Firminy Cedex  
 Tel : 33 (0)4 77 40 36 06



**Services Center of Heyrieux**  
 ZI Rue des Balmes  
 38540 Heyrieux  
 Tel : 33 (0)4 72 48 12 90



**Interforge**  
 BP 75  
 63502 ISSOIRE CEDEX  
 Tel : 33 (0)4 73 89 07 83

## 6. ADMINISTRATIVE INFORMATIONS

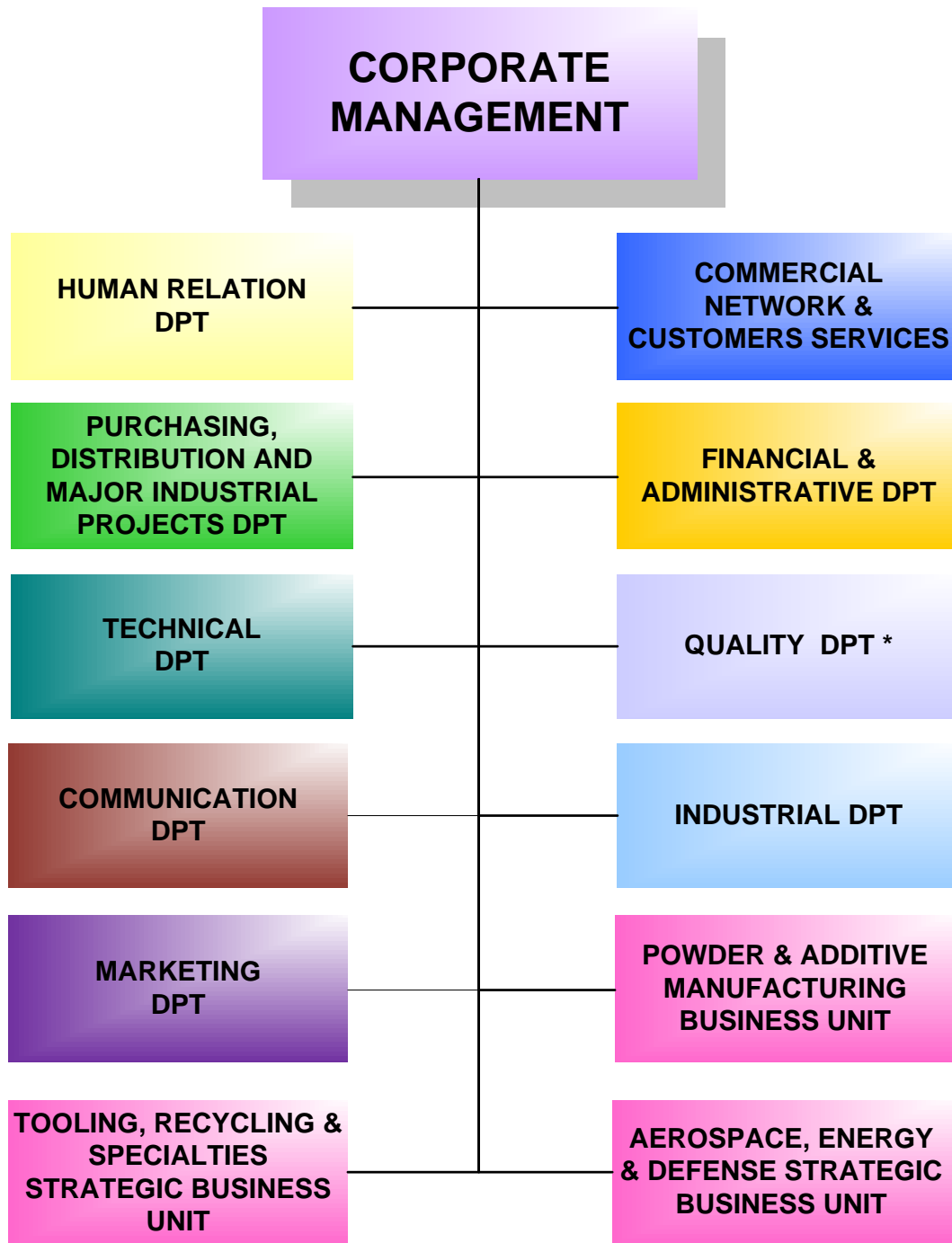
Plant	Total aera (Ha)	Covered aera (Ha)	Legal shape	# APE	# SIRET	# SIREN	NATO code
Ancizes	54	15	S.A.S.	2410 Z	380 342 808 00090	380 342 808	FANU1
Firminy	22,4	4,6	S.A.S.	2550 A	380 342 808 00124	380 342 808	FANU1
Imphy	1,6	1,6	S.A.S.	2550 A	380 342 808 00074	380 342 808	FANU1
Issoire	6	2,2	S.A.S.	2550 A	380 342 808 00108	380 342 808	FANU1
Pamiers	22,5	6,4	S.A.S.	2550 A	380 342 808 00132	380 342 808	FANU1
Services Centers of Heyrieux	2	1	S.A.S.	4672 Z	380 342 808 00066	380 342 808	
Interforge	5,8	1,9	S.A.S.	2550 A	732 032 271 00056	732 032 271	

**Internet adress:**

AUBERT & DUVAL: <http://www.aubertduval.com>  
 ERAMET: <http://www.eramet.fr>

# 7. ORGANIZATION

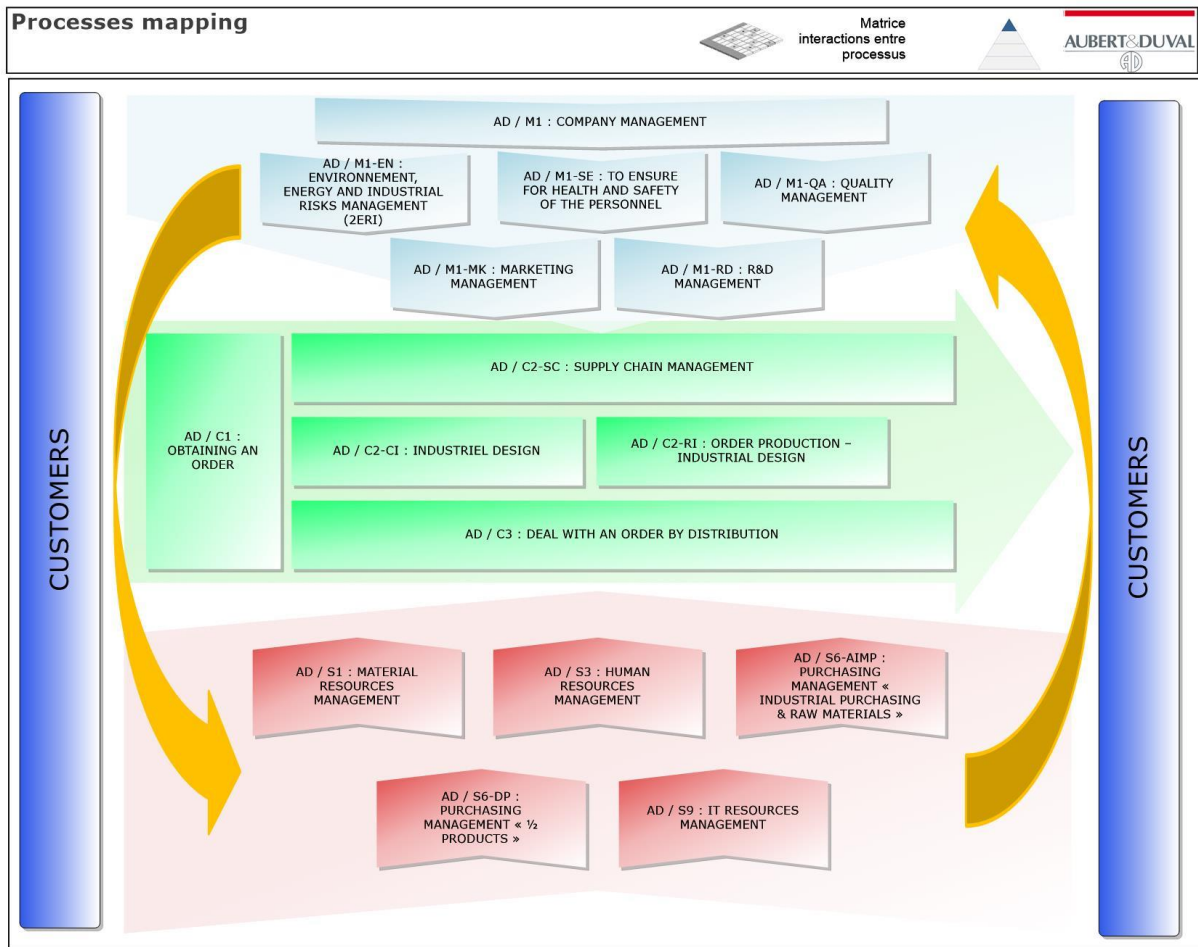
The general organisation of AUBERT & DUVAL is illustrated on the charts set out below:



\* Representative of corporate management for purpose of EN/AS/JISQ 9100 and EN/AS 9120 (§ 5.3)

*Note: Quality Dpt and by delegation Plants Quality managers have authority to suspend the delivery of any nonconforming products.*

# 8. PROCESSES MAPPING



# 9. PROCESSES INTERACTIONS

Interactions are specified in the process description sheet

	M1	M1-QA	M1-EN	M1-SE	M1-RD	M1-MK	C1	C2-SC	C2-RI	C2-CI	C3	S1	S3	S6-AIMP	S6-DP	S9
M1		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
M1-QA	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X
M1-EN	X	X														X
M1-SE	X	X							X	X	X	X	X			X
M1-RD	X	X				X	X		X	X	X	X	X			X
M1-MK	X	X			X											X
C1	X	X						X	X	X	X			X	X	X
C2-SC	X	X														X
C2-RI	X	X					X					X		X	X	X
C2-CI	X	X					X					X		X	X	X
C3	X	X										X		X		X
S1	X	X							X	X	X			X	X	X
S3	X	X		X							X	X				X
S6-AIMP	X	X					X		X	X	X	X				X
S6-DP	X	X							X	X	X	X				X
S9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

## 10. PROCESSES CONTROL

REFERENCE	TITLE	CENTRAL PILOT	LOCALS PILOTS
AD/M1	Company Management	Chief Executive Officer	Directors
AD/M1-QA	Quality Management	Quality Director	Quality Managers
AD/M1-EN	Environnement, energy and industrial risks management (2ERI)	Environment and energy performance coordinator	Environmental Engineers and coordinators
AD/M1-SE	To ensure for health and safety of the personnel	HSSE Director	Plant Directors with the support of the Plant safety Animators / Coordinators
AD/M1-MK	Marketing Management	Marketing Director	-
AD/M1-RD	R&D Management	R&D Director	-
AD/C1	To answer a request for quote	Directeur des processus commerciaux	-
AD/C2-RI	Order Production - Industrial Build	Industrial Director	Plant Directors
AD/C2-CI	Industrial design	Industrial developments director	Technical and Quality Dept Managers
AD/C2-SC	Supply Chain Management	Supply chain Director	Plant Supply chain Managers
AD/C3	Deal with an order by Distribution	Industrial Director	Heyrieux Service Center Manager
AD/S1	Material Resources Management	-	Plant Maintenance Managers
AD/S3	Human Resources Management	Human Ressources Director	Plant HR Managers
AD/S6-AIMP	Purchasing Management « Industrial Purchasing & Raw materials »	Purchasing Director	Plant Purchasing Managers / Plant Raw materials Purchasing Manager
AD/S6-DP	Purchasing Management « ½ products »	Semi products Purchasing Director	Plant Semi Products Purchasing Managers
AD/S9	IT Resources Management	IT Director	-

# 11. AIM OF PROCESSES

## Management Processes

### **M1**      **Company Management**

To Manage the company processes and its components, by defining the operational and strategic objectives in the level of result aimed by the shareholder, by building the means of reaching them, by managing the realization actions, respecting the company values and the regulation, at the customers service

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### **M1-SE**    **To ensure for health and safety of the personnel**

To continuously improve working conditions and to prevent from professional risks in order to preserve physical and mental integrity of the personnel

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### **M1-QA**    **Quality Management**

To guarantee the conformity with the standards and customers requirements, to manage a dynamic of product quality improvement

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### **M1-EN**    **Environnement, energy and industrial risks management (2ERI)**

- Promote a continual improvement for ISO 14001 and/or ISO 5001
  - Manage and minimize the environmental impact of industrial activities
  - Manage and improve the energy performance of industrial activities
  - Manage the risks and impacts related to products
  - Anticipate and respect legal and other standards
  - Organize the internal and external communication
- 

### **M1-RD**    **R&D Management**

- Conquer markets thanks to the ability to innovate and the lasting wish of improvement
- Gain the loyalty by proposal
- Increase the margin in reducing costs, and the reliability of processes and the contribution to the progress action plan
- Increase the competences and train the young engineers and technicians to the technical knowledge of the company.

NB: The design activities associated with productions executed to customers' orders, with particular reference to qualification components, initial specimens and industrialisation are covered by the two industrial processes of C2-RI.

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### **M1-MK**    **Marketing Management**

Foster company development on target markets by defining, optimizing, structuring and promoting the AD offer (products and services)

## Customer Processes

### **C1**     **Obtaining an order**

To answer customers' requests for quote in order to obtain purchase orders in accordance with the allocation targets, and aiming to ensure the customer's satisfaction.

### **C2-RI**    **Order Production – Industrial Build**

To Manufacture the product ordered to the customer at the stipulated conditions in his order and negotiated with him (technical, quality and delivery time), to the best cost for the company

### **C2-CI**    **Industrial Design**

- Develop a new article or a new family at maturity
- Frame major changes to find or quickly reach maturity

### **C2-SC**    **Supply Chain Management**

To manage the supply of a product, documents and associated service to the customer in accordance with our contractual commitments with the right level with stocks and work in progress

### **C3**        **Deal with an order by Distribution**

Supply and deliver the product ordered to the customer at the stipulated conditions in his order and negotiated with him (technical, quality and delivery time), to the best cost for the company

## Supports Processes

### **S1**        **Material Resources Management**

Purchase and maintain all material resources relating to the completion of products & services (buildings, tools).

### **S3**        **Human Resources Management**

Within the desired timescale, ensure the availability to the company of competent and motivated staff in order to guarantee company performance and customer service.  
Maintain social dialogue within the company.

### **S6-AIMP** **Purchasing Management « Industrial Purchasing & Raw materials »**

Set up and monitor contracts or orders to source under the best conditions of cost and lead-time, the products, prestations and/or services necessary for the realization of the products & Raw materials this in accordance with the quality level and the service rate expected.

NB: This process comprises subcontracted services and external procurements. Site-to-site services within AUBERT & DUVAL, Interforge and SUPA are not taken into account in this process, but within the specific corresponding processes (C2-RI, S1, ..).

### **S6-DP**    **Purchasing Management « ½ products »**

Set up and manage contracts or order to supply in the best conditions of costs and lead-time, the semi-products to be necessary for realization of products for customer, in accordance with the quality level and the service rate expected.

### **S9**        **IT Resources Management**

Make available an information system and services in order to allow a good progress of the processes at all company levels