

ISO 9001

BUREAU VERITAS
Certification



N° 172679



OUR COMMITMENTS :

REACTIVITY

PRECISION

QUALITY

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Company address details

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Effectif: 23
Code APE: 2562B
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N° Technicienne Qualité : MQ 92 11 89 0101 H
UIMM de la Haute-Savoie

Activities and equipment

Precision mechanical machining

- **MULTI-TASK CENTER MAZAK INTEGREX 400 S IV-1500**
With manager of MAZATROL MATRIX MT,
40 tool magazine and parts recovery point
Capacity: Ø660 above bed
Ø760 maximum machining diameter
1524 mm maximum machining length



- **WATER JET CUTTING FLOW IFB INTEGRATED FLYING BRIDGE**
With cutting technology Dynamic Waterjet
Piloted and programmed by computer software FlowMaster
Working area: 3600 x 2000 Z axis 200





Numerically controlled turning

- **SOMAB Transmab 350 3 axis numerically controlled lathe**
ISO and interactive programming
Capacity: distance between centres 600
Ø410 above bed

Wire and sinker electrical discharge machining

- **Wire EDM CHARMILLES Robofil**
Capacity : X 550 Y 350 Z 400
- **Sinker EDM CHARMILLES Roboform**
Capacity : X 300 Y 250 Z 250



Numerically controlled milling

- **2 machining centres DAEWOO type MYNX 500**
Capacity : X 1200 Y 600 Z 600
Fitted with a Ø180 capacity Golden Sun 5 axis divider
- **Numerically controlled milling machining PMER**
Capacity : X 700 Y 400 Z 550
- **3 axis centre bore KITAMURA**
With manager of FANUC 3M
Capacity : X 450 Y 300 Z 400

Conventional milling

- Milling machine GRAFF
Capacity : X 1000 Y 400 Z 350
- 2 milling machines DECKEL
Capacity : X 500 Y 400 Z 400
- Milling machine RAMBAUDI
Capacity : X 560 Y 270 Z 400
- Milling machine DUFOUR 250
Capacity : X 1000 Y 350 Z 400
- Milling machine DUFOUR 231
Capacity : X 800 Y 300 Z 380
- 4 milling machines WIRTH & GRUFFAT



Conventional turning

- Turning machine CAZENEUVE 590 HBY
Capacity : distance between centres 1000
Ø560 on 100
Ø290 sur chariot
- Turning machine CAZENEUVE 360 HBX
Capacity : distance between centres 700
Ø320 on 100
Ø200 sur chariot
- Turning machine VICTOR
Capacity : distance between centres 1400
Ø400 on 50
Ø220 sur chariot



Surface Grinding

- Grinding machine ELB
Capacity : X 600 Y 300 Z 300
- Grinding machine BROWN & SHARPE
Capacity : X 600 Y 250 Z 250
- Grinding machine JONES & SHIPMAN
Capacity : X 350 Y 150 Z 140
- Grinding machine MICROMASTER
Capacity : X 350 Y 150 Z 200
- Grinding machine CAMUT
Capacity : X 2000 Y 400 Z 500

Various equipment

- Bed with 6 drilling and tapping machines
- Marking machine
- Sand blast machine

Programming

Software MISSLER

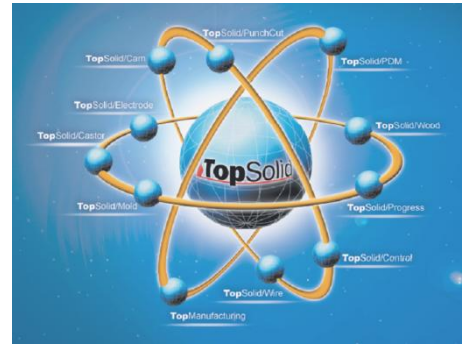
TopSolid : 3D Design

Topcam : Programming and tool course

Topwire : Wire course

Topélectrode : Sinkers electrode

Topmold : Mould study



Fitting,

assembly

and magazine management



- Leak detector ALCATEL ASM 121 H
- Leak detector ALCATEL ASM 151 TURBO

Impermeability control and testing

- Tridimensional ZEISS CONTURA G2 – indexable scanning head
Capacity : X 700 Y 700 Z 600
Fitted with software CALYPSO
- Motorised measuring column MITUTOYO LH600
Capacité : 0-600
Equipé d'un calculateur MITUTOYO QM DATA 100
- Tridimensional MITUTOYO CRYSTA-PLUS M443 of 2007
Capacity : X 400 Y 400 Z 300
Fitted with software GEOPAK COSMOS
- Measuring microscope MITUTOYO MF 1020
Fitted with calculator MITUTOYO QM DATA



ZEISS TRIDIMENSIONAL NUMERICALLY CONTROLLED MEASURING MACHINE WITH SCANNING HEAD



CONTURA G2 700 RDS

capacity 700 x 700 x 600, fitted with an **indexable scanning head with motorised positioning**. This technology, developed by ZEISS, allows **20 736 tracing positions, in steps of 2.5°** (compared with 720 positions in steps of 7.5° for a standard head).

And various traditional test instruments: internal and external micrometers, comparators....

Logistics

- GPAO
Software CLIPPER 4.1

- Transport :
PEUGEOT 307
PEUGEOT Expert
PEUGEOT Boxer

Our customers' business areas



**Vacuum pumps, valves,
plumbing and
automatismes**



Nuclear



Machine tools



Aeronautics



Precision mechanics



Métallurgy



Maintenance



**Special
machines**

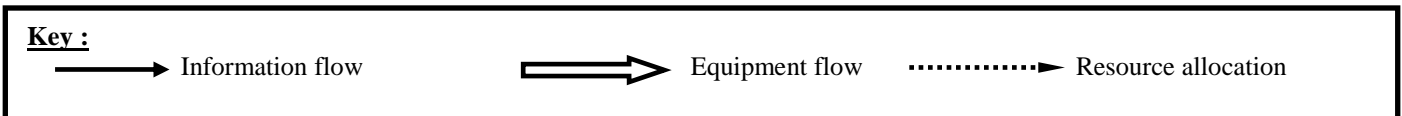
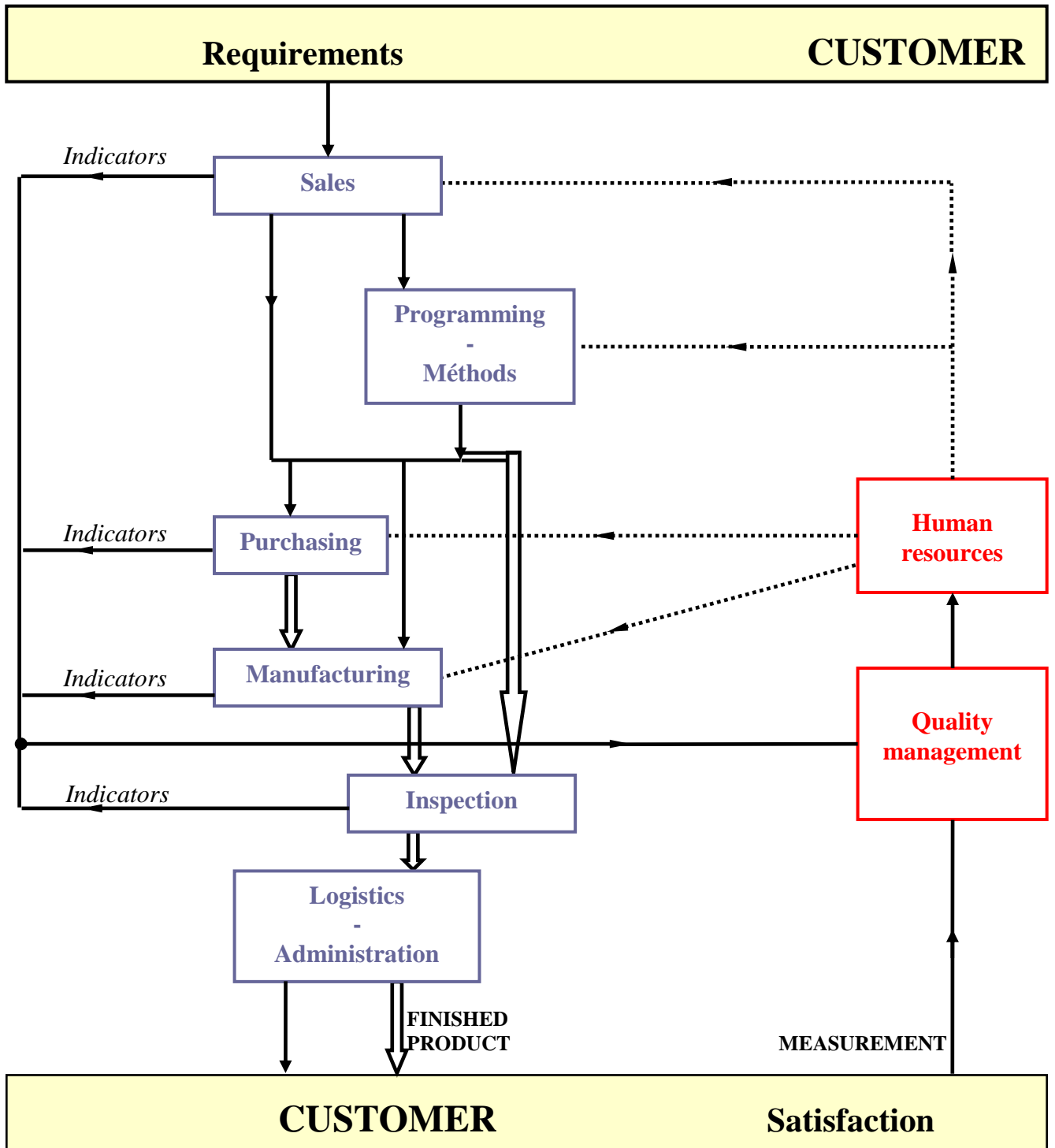
Field of application

Our quality management system applies to the “production of precision mechanical parts and to industrial fitting” and to all the other services we offer our customers, in a permanent effort to meet and comply with their requirements.

Chapter 7.3, “Design and development” of ISO standard ISO 9001-2000 does not apply.

List of our procedures

Reference	Document title
<i>PR.42.01</i>	<i>Management of quality documents and records</i>
<i>PR.71.01</i>	<i>Pallet operations</i>
<i>PR.71.02</i>	<i>Fitting operations</i>
<i>PR.72.01</i>	<i>Drawing up offers and processing orders</i>
<i>PR.72.02</i>	<i>Emergency procedure for processing orders</i>
<i>PR.72.11</i>	<i>Processing intra-community data</i>
<i>PR.74.01</i>	<i>Purchasing</i>
<i>PR.82.01</i>	<i>Internal audits</i>
<i>PR.82.02</i>	<i>Inspection</i>
<i>PR.83.01</i>	<i>Dealing with non compliant products</i>
<i>PR.83.02</i>	<i>Dealing with non compliant pallets</i>
<i>PR.83.03</i>	<i>Dealing with non compliant products during fitting</i>
<i>PR.85.01</i>	<i>Corrective measures / Preventive measures</i>



Process description

Process : SALES							
Upstream process	Input data	Tasks to be carried out	Participants	Procedures	Indicators	Output data	Downstream process
Customer	Customer requirements - Call for tenders - Customer order	Prospecting - Draw up offers - Chase up / negotiate - Record orders	Manager	PR.72.01 “Drawing up offers and processing orders” - PR.72.02 “Emergency procedure for processing orders”	Success rate of offers	Customer order form - Manufacturing programme + Kanban - IGES data files - Part plan	Programming and methods - Purchasing - Manufacturing - Inspection

Process : PROGRAMMING AND METHODS							
Upstream process	Input data	Tasks to be carried out	Participants	Procedures	Indicators	Output data	Downstream process
Sales	Order - IGES data sheets - Part plan	Tool + mounting studies - Draw up manufacturing ranges	Design office - Methods	without	No relevant indicators	Plan - CN machining programme - Manufacturing ranges	Purchasing - Manufacturing - Inspection

Process : PURCHASING							
Upstream process	Input data	Tasks to be carried out	Participants	Procedures	Indicators	Output data	Downstream process
Sales - Programming and Methods	Plan + “customer” nomenclature - Manufacturing ranges - Requisitions	Choose and evaluate suppliers - Draw up purchase orders - Quantity checks on receipt	Manager + Workshop	PR.74.01 “Purchasing”	Supplier evaluation - Have at least two suppliers for each type of supplies	Purchase orders - Supplier’s delivery note signed and stamped	Manufacturing

Process : MANUFACTURING							
Upstream process	Input data	Tasks to be carried out	Participants	Procedures	Indicators	Output data	Downstream process
Sales - Programming and Methods - Purchasing	Plan - Nomenclature - Manufacturing ranges - Numerical control machining programme	Turning - Milling - Wire and sinker EDM - Regrinding - Assembly	Workshop	PR.83.01 “Dealing with non compliant products” - PR.83.02 “Dealing with non compliant pallets” - PR.83.03 “Dealing with non compliant product on fitting”	Rate of non compliance costs	Finished products - Fitting used for machining - Annotated plans	Inspection

Process : INSPECTION							
Upstream process	Input data	Tasks to be carried out	Participants	Procedures	Indicators	Output data	Downstream process
Sales - Programming and methods - Manufacturing	Product delivered by the customer for testing - Finished product manufactured	Tests - Internal checks - Final inspection	Fitting - Workshop - Quality	PR.82.02 “Inspection”	Rate of non compliance costs	Product checked - Certificate of compliance - Impermeability certificate - Inspection report	Logistics and administration

Process : LOGISTICS AND ADMINISTRATION							
Upstream process	Input data	Tasks to be carried out	Participants	Procedures	Indicators	Output data	Downstream process
Inspection	Product checked - Customer order - Manufacturing programme	Pack - Package - Deliver - Draw up delivery notes - Draw up invoices	Workshop - Administration	Without	No relevant indicators	Product delivered - Delivery note - Invoice	Customer

Process : QUALITY MANAGEMENT

Upstream process	Input data	Tasks to be carried out	Participants	Procedures	Indicators	Output data	Downstream process
Customer - All processes	All indicators - Measuring customer satisfaction - Market development - Changes in standards and regulations - Customer suggestions - Financial data - Customer audit reports - Single document	Analyse indicators - Utilise questionnaires aiming to measure customer satisfaction - Benchmarking - Technological watch - Listening to customers - Financial analysis - Internal audit - Management review	Manager - Administration manager - Quality manager	PR.82.01 "Internal audit" - PR.85.01 "Corrective measures– preventive measures"	Average customer satisfaction - Increase in turnover	Minutes of management review - Internal audit reports - Investments	Human resources - All processes - Customer

Process : HUMAN RESOURCES

Upstream process	Input data	Tasks to be carried out	Participants	Procedures	Indicators	Output data	Downstream process
Customer - All processes	All indicators - Measuring customer satisfaction - Market developments - Changes in standards and regulations - Customer suggestions - Financial data - Customer audit reports - Single document	Draw up training plan - Carry out and monitor training courses - Recruit and draw up contracts - Define roles - Pay salaries - Manage working time - Utilise questionnaires aiming to measure customer satisfaction - Make workstations safe - Draw up internal regulations	Manager - Administration manager - Quality manager - Production manager	without	Average employee satisfaction - Development of skills	Permanent contracts - Salaries - Training courses followed - Staff well-being	All processes

Our commitment

Our basic aim is to satisfy our customers as best we can by understanding their present and future requirements and by striving to exceed their expectations.

Since our ambitions and our interests motivate us to produce high quality products, we must be more stringent about formalising everything we do.

In an effort to achieve our goal, FMI has taken steps to obtain certification according to international standards.

I personally undertake to give this project all my support and to provide all the human and material resources needed to implement this policy. I would like to remind you how important it is to meet our customer requirements and to comply with legal regulations. I urge all members of staff to become involved in our quality procedure by working together as a team and showing mutual respect, openness and innovation.

I undertake to ensure that this quality policy is implemented in a way that suits our small structure, and that far from holding back our reactivity, it will represent a guarantee of high quality products delivered in the shortest possible deadlines, because of our complete control over the whole process.

I am therefore appointing a Quality Manager, Lydie Brunier, whose role will be to represent the Management in developing, implementing, maintaining, improving and checking the Quality System processes, informing staff about customer requirements, developing a feel for quality, moderating the company's quality system and reporting back on its success.

Manager
Cyril Fruger



Customer focus and customer satisfaction

A company manager remains in permanent contact with the customers to ensure that he fully understands their requirements. Whilst an order is being carried out, a customer may be in direct contact with the Programming/Methods, Quality or Production managers.

Once a year, we also send our main customers a questionnaire so that we can measure the extent of their satisfaction. Questionnaires are processed digitally and graphically by the Quality manager. The results are displayed on notice boards for all staff members to see and are analysed at management review meetings.

Our quality policy

Our quality policy, which is in line with the Management's statement, is displayed on notice boards and must be based on the two main principles set out below:

- **Satisfy our customers** through constant communication so that we can understand and analyse their expectations whilst providing a service that is as efficient as possible in terms of costs and deadlines and remaining vigilant and open to new techniques in every field in order to continuously improve our work and to understand market developments
- **Ensure continuous improvement** by taking steps to measure quality so that we can detect any malfunctions before correcting them by analysing imperfections in our individual work or joint work and accepting methods of improvement.

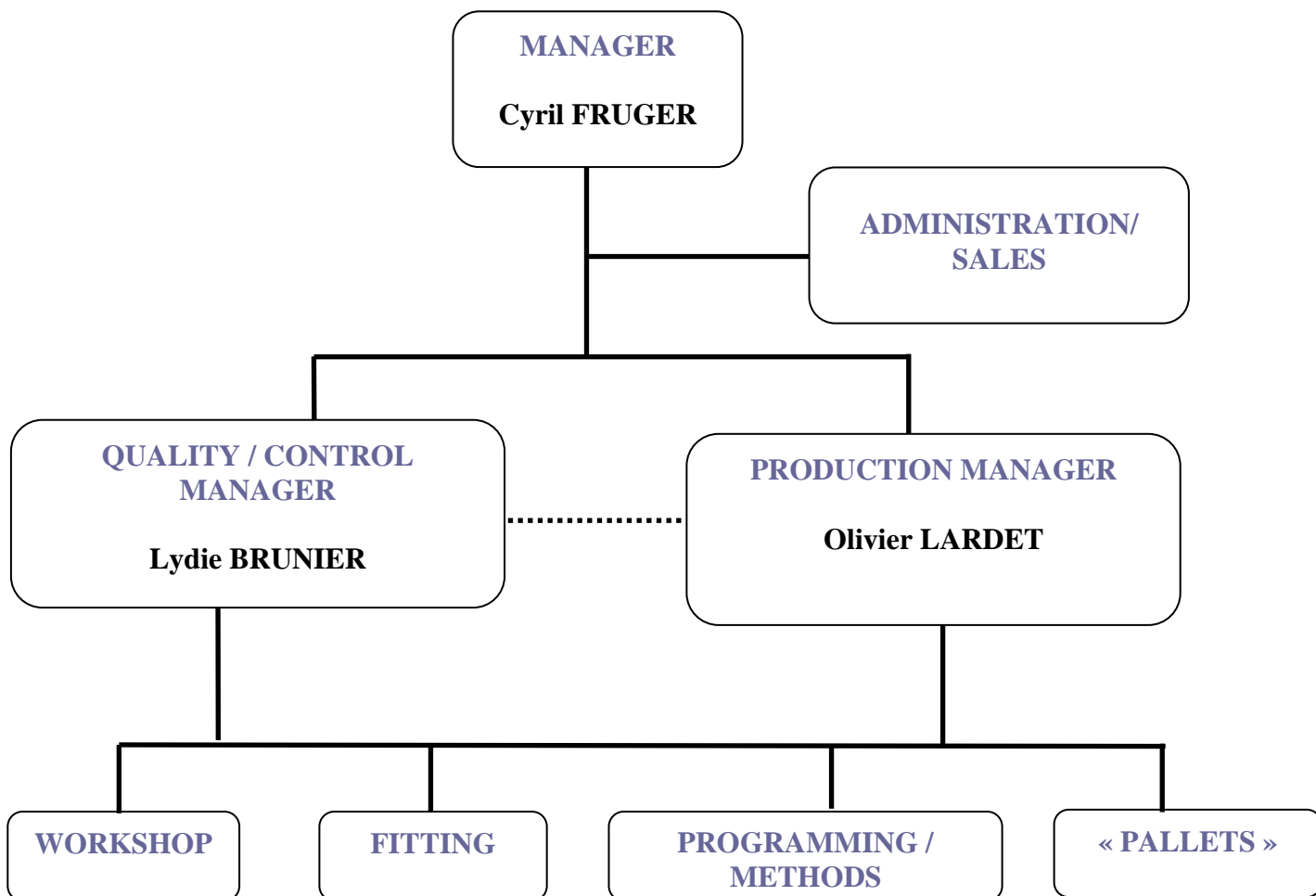
Quality planning and management reviews

Quality planning decisions are made and implemented during management review meetings, organised at least once a year or following any important events that arise or that require an improvement plan.

During management review meetings, each manager analyses all the documents that could provide opportunities for improving our Quality Management System.

Any decisions made are noted in a Quality Management System improvement plan This plan defines the aims, deadlines and means to be implemented.

Organisation chart



The manager decides which investments to make (building, machines, tools, test instruments, computing equipment etc.), giving due consideration to market developments.

The manager and the Production manager are in charge of hiring staff, organising training courses and sacking staff if necessary as well as dealing with temporary workers, short-term employees and trainees. The skills of each member of staff are evaluated and noted on a competency map. We use the same competency map to work out our needs in terms of training. After training, any results seen in practice are evaluated in terms of efficiency and the competency map is updated accordingly.

Each year, staff members are given a questionnaire to measure their level of satisfaction. Their replies are processed digitally and graphically by the Quality manager and displayed on a company notice board.

Work infrastructures and environment

Our building, which is located in a functional industrial zone, was built in 2001. It, comprises:

- An administrative area
- A workshop area with mezzanine
- A design office + inspection area in an air-conditioned room

The main equipment (programming, machining and inspection) is described in the “Activities and equipment” section of this manual.

All the computer terminals in the offices and fitting area are networked and can be connected to the Internet. What is more, the computer terminal in the fitting area is connected to our specific customer’s SAP software for magazine management purposes.

Product planning and production

We become aware of customer requirements either through prospecting or on issuing calls for tenders. After analysing feasibility, an offer is made, entered into our computer system and sent to the customer. On receipt of a customer's order, the order is compared to the offer, registered and sent to the departments concerned.

When an order is sent to the methods department, a manufacturing range is created. If a purchasing need is identified, the manager of the department in question follows the "Purchasing" procedure.

As far as fitting of pumps, valves and accessories for our specific customer are concerned, a weekly schedule is sent to us by e-mail at the end of each week. A pallet machining schedule for our specific customer is drawn up firstly according to kanban cards and secondly according to a reservation list printed via SAP at the beginning of each week.

Mechanical parts are made in the workshop depending on the availability of the means of production and the skills of each operator. Manufacturing ranges produced by computer together with the corresponding part plans are given to the operators at the beginning of the week by the Production manager, who establishes priorities according to deadlines. Priorities may be reviewed during the week if an event occurs that requires adjustment of the schedule.

Procedure PR.82.02 specifies the inspections and internal checks which must be carried out between each stage in product manufacturing. To produce a series comprising more than 50 parts or to meet a customer's specific request, the process is validated by a pre-series inspection. Depending on the type of product, a dimensional test report or helium impermeability test certificate may be supplied to the customer on request.

Management of test instruments

Calibration of test instruments is subcontracted to a COFRAC authorized laboratory. There is a service history sheet for each test instrument giving details of requirements in terms of inspection and calibration. Computer software is used to schedule calibration. What is more, our subcontractor reminds us of calibration deadlines if necessary.

All the traditional test instruments are located together in the inspection room. When an instrument is borrowed for internal checks, it must be examined by the operator. If in any doubt, the tool is isolated and sent to a laboratory to be examined.

Internal audits

Internal audits are scheduled to ensure that the entire Quality Management System is audited at least once a year. The audit timetable is adjusted to allow for any quality incidents that may occur.

Advance notice of audits is given by putting up notices for the attention of those to be audited. Audit reports are drawn up and systematically distributed to the Management for management reviews, as well as being recorded for future audits.

Any non-conformities that are detected are dealt with by taking corrective measures.

The audit process is described in procedure PR.82.01.

Dealing with non compliant products

Any products detected as non compliant are isolated and marked with a yellow sticker. Whether they have been detected internally or by the customer, they are dealt with via non-compliance sheets.

Products are returned to the supplier if the latter is to blame.

Otherwise, products may be “taken back” or an exemption request may be made.

Depending on the customer’s decision, these products are:

- Accepted in their current condition as exemptions
- Repaired and then inspected
- Rejected and marked with a red sticker

This course of action is described in procedure PR.83.01.

Continuous improvement

The analysis of the various information gathered regarding the status of the Quality Management system gives us opportunities for improvement. The steps we decide to take enable us to update our quality policy, quality aims and entire system.

Corrective or preventive measures and improvements of any kind are noted in the Quality Management System improvement plan.

DÉCOUPE JET D'EAU



- Capacité de 3600 x 2000 x 200 mm.
- Technologie Dynamic WaterJet.
- Système de découpe au jet d'eau abrasif.



PÔLE DE COMPÉTITIVITÉ
du décolletage à la mécatronique
haute-savoie mont-blanc

FMI
Mécanique Générale et de Précision



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MAZAK INTEGREX 400 S IV - I500 7 axes



- Diamètre 760 mm.
- Longueur 1524 mm.
- Magasin 40 outils.



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