

QUALITY IS IN THE AIR

QUALITY MANAGEMENT HANDBOOK

ISO 9001:2015

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COMPANY HISTORY

The company Chemisch Thermische Prozesstechnik GmbH (CTP) was established in 1985. Numerous inventions, many of which are patented, smoothed the way in the years that followed for it to become one of the leading companies in waste-gas cleaning worldwide. CTP's unique concept of an RTO with honeycomb-block heat exchangers and poppet valves revolutionized the industry. Turned down at first by many of the existing suppliers in the field of air pollution control, it has subsequently been copied countless times. CTP's systems quickly spread throughout the world, from the first systems in Italy, Sweden, Austria, Germany, into the rest of Western Europe, into the USA and Australia.

In the 90s, CTP changed from a small founder company into a concern operating internationally. CTP gained partners throughout the world. License agreements were signed with McGill Airclean LLC (USA) and Sinto Dust Collector (Japan). CTP's experience now led into larger and more and more complex orders. CTP has pioneered several solutions such as the first RTO for the fibre boards industry, the abatement of all pollutants in the anode production or the first thermal laughing gas removal.

The years after 2000 CTP founded the subsidiaries CTP Korea, CTP France and CTP Ibérica. 2011 the subsidiary CTP-DUMAG was established. Since 2013, CTP has its own subsidiaries in the US and China. The aim is to continue to grow together with CTP Sinto America and CTP China and to acquire new customers.

SINTOKOGIO Ltd being the world's largest supplier of foundry equipment and supplies to the leading automotive manufacturers such as Toyota, for example, has had minority interest in CTP since 2010. When it comes to environmental technologies, SINTO has relied on CTP since 1998 as a licensee of our technology.

Further positive synergies have been made in 2018 with the vertical integration by our longterm partner NCA Container- und Anlagenbau GmbH. Apart from plant engineering and steel manufacturing you can benefit from the new CTP-NCA as a competent provider of complete solutions.

VISION

IT 'S ALL ABOUT THE AIR.

OUR TECHNOLOGIES EMBODY CLEAN AND
EFFICIENT PROCESSES WORLDWIDE.
FOR THE CLEAN AIR THAT WE BREATHE,
NOW AND FOR FUTURE GENERATIONS.

MISSION

WE ARE A VALUED GLOBAL PARTNER IN THE DEVELOPMENT OF INNOVATIVE, ECONOMICAL AND EFFICIENT AIR POLLUTION CONTROL SYSTEMS.

CLIENT-FOCUSSED:

Experience and expertise throughout the process.

A PARTNER IN EVERYTHING:

From ideas to an integrated solution.

SMART PROCESSES:

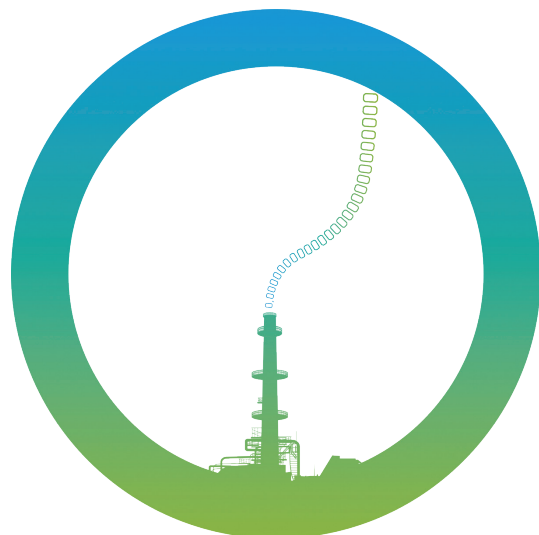
Efficient and economical.

AHEAD OF ITS TIME:

Innovative concepts.

MY SOLUTION:

Custom designs for individual clients.



VALUES

OUR AMBITIONS ARE SOLUTION-ORIENTED.

Our motivation is finding the best solution for you. We have the customer's benefit at heart throughout the process.

OUR ACTIONS ARE DEPENDABLE.

Deep roots are the basis for dynamic development. We build on foundations of continuity and integrity and assume complete responsibility for our actions.

OUR ATTITUDE IS OPEN-MINDED.

Being open-minded means opening yourself to other worlds. It means showing interest in the opinions of colleagues and co-workers.

Viewing the unknown with curiosity. Understanding and learning from others and collaborating on projects.

OUR MINDSET IS APPRECIATIVE.

Every opinion has its validity. Appreciation creates diversity and a beneficial environment, in which we enjoy our work and can rise to our maximum potential and level of performance.

OUR THINKING IS SUSTAINABLE.

To think sustainably is to appreciate things as they are. It means thinking about our environment now and for the next generation.

BINDING DECLARATION AND SCOPE OF APPLICATION

The existing quality management system takes into account all requirements of the

ISO 9001:2015

&

SCC (Version 2011)

and is applicable for CTP GmbH in Graz and national as well as international projects and services.

The handbook describes the quality management system of our company and is binding on all employees without reservation.

All areas of our company are charged with making their contribution towards the realisation of the quality policy, the achievement of the quality aims and the implementation of those company principles that are of relevance to quality by creating, further developing and applying the process instructions required in order to achieve this.

Each employee has the right and the duty to insist that conditions that prevent a high standard of quality from being met during any phase of the provision of the service are eliminated. On the other hand, the management undertakes to create the necessary preconditions and to provide the means required.

The management and all employees of the company undertake to implement and further develop the quality assurance system.

STRUCTURE OF THE QM SYSTEM

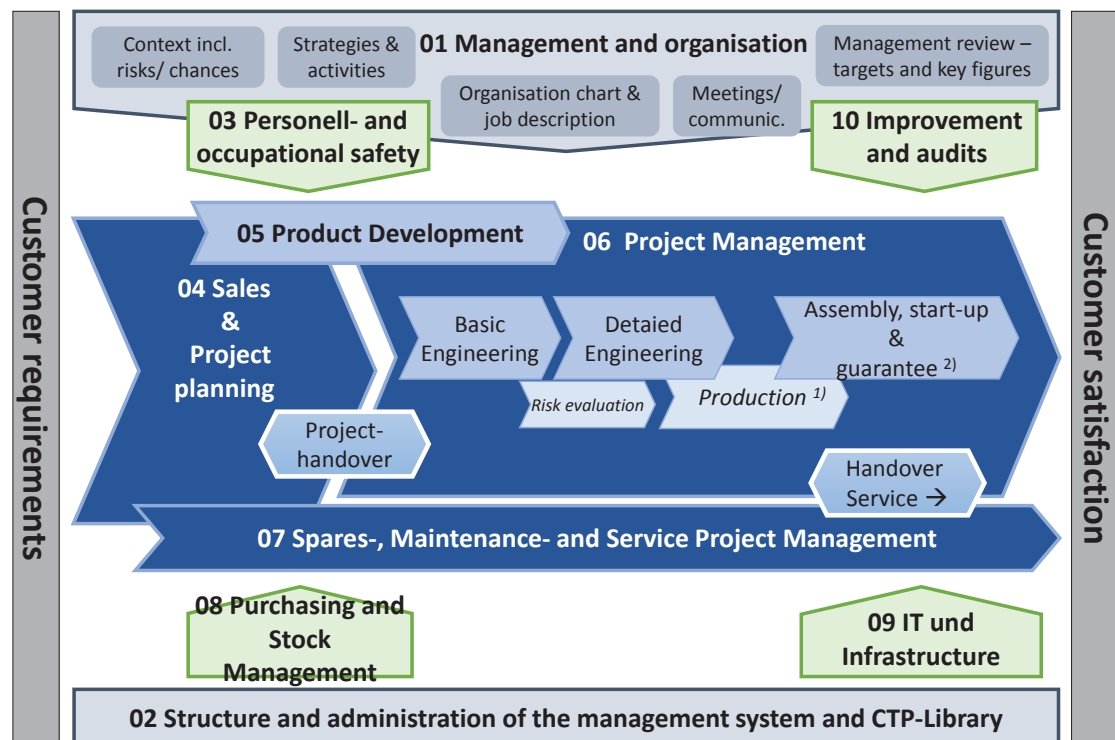
The quality management system is process-oriented and structured according to the main processes as well as support processes identified for CTP.

The process management approach is the foundation of our organizational development and is subject to a continuous improvement process, which is proactively promoted by the individual process managers. For this reason cross-departmental process instructions have been developed on the basis of the process map and broken down into workplace-related guidelines and templates. These are constantly monitored by the head of the departments on their own responsibility to ensure compliance and are continuously developed in the team.

Therefore the quality management system, as part of the CTP library, is also a central component of the knowledge management. Further it is freely accessible to all employees via an intranet solution. The continuous transfer of knowledge and exchange of experience during project execution as well as the further development of existing knowledge by the internal research and development department and a process engineering expert team of the „Process and Systems“ department are also defined as central requirements for a successful QM system.

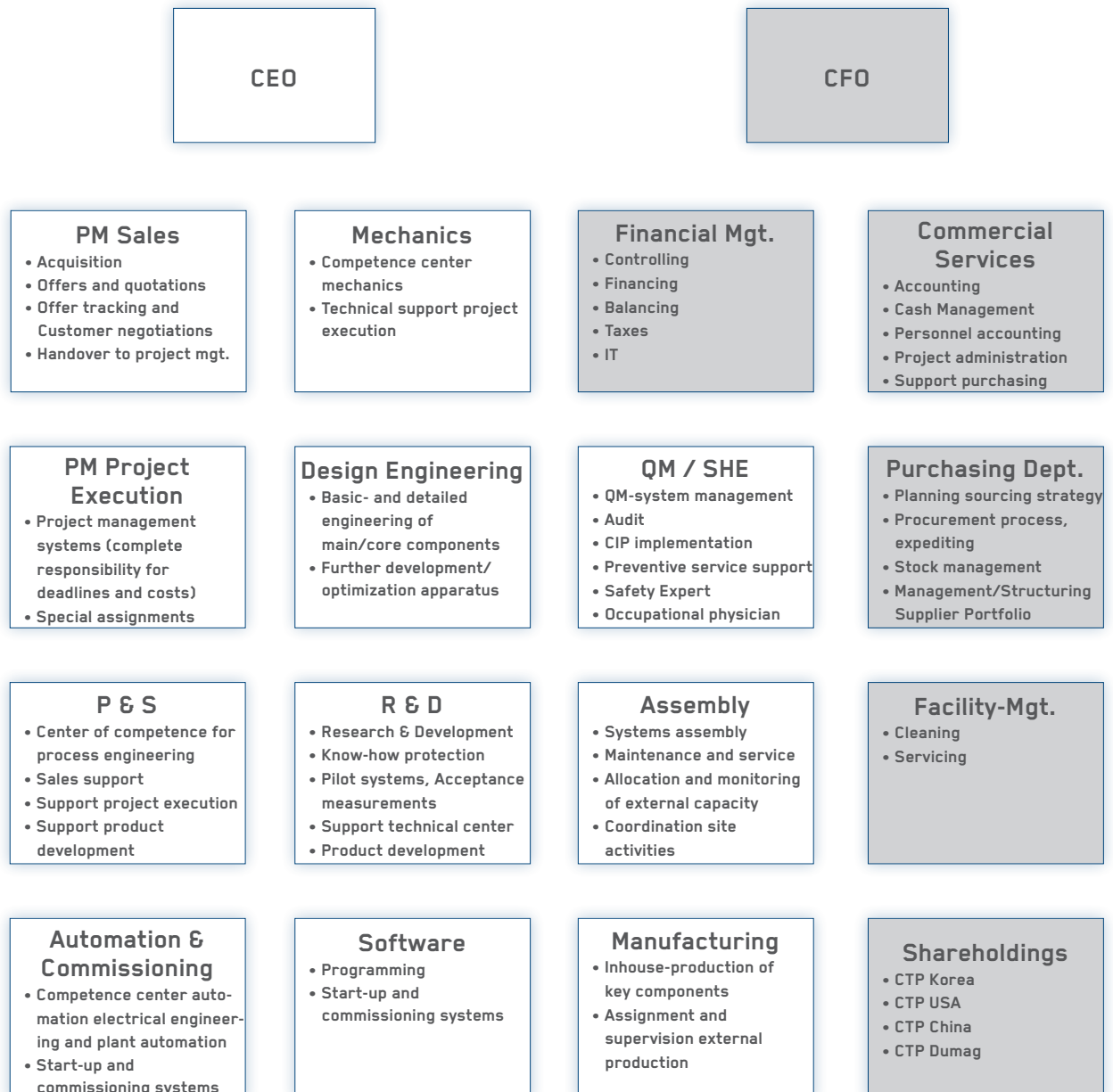
Compliance with relevant standards, legal and official requirements and guidelines is monitored by the head of departments and ensured during implementation.

PROCESS MAP



1) Production by NCA GmbH (sister organisation) 2) Service within the gurantee period

ORGANIZATIONAL CHART



Legende:

| | |
|-------|--------------------------------|
| CEO | Chief Executive Officer |
| CFO | Chief Financial Officer |
| P & S | Process & Systems |
| R & D | Research & Development |
| SHE | Safety, Health and Environment |
| CIP | Continuous Improvement Process |

| |
|-------------------------------------------|
| CTP France |
| • Market development French market |
| • Project execution of allocated projects |
| • Service activities France |

RESPONSIBILITIES AND COMPETENCES

Responsibility for the quality policy, visions and missions is placed with the management.

Medium-term quality targets are derived from the quality policy.

Employees are made aware of the quality policy in the form of training sessions, and the guidelines are put up at a central point.

Targets that are dealt with in the management report and linked with measures must be communicated to those employees working in the operative area (achievement of goals).

A delegate is appointed from the top management. The latter has at his disposal the necessary means for the implementation and maintenance of the QM system.

The presentation of the departments - process organization - is effected by means of the enclosed organizational chart. Furthermore, the departments of the company are documented by means of job descriptions.

The responsibilities for duties and activities are specified in the process presentations.

QUALITY POLICY

The customer forms the focus of our actions. His problems are quickly and creatively solved by us.

Product development is geared towards the demands of the market; it is carried out in close cooperation with the customer.

The level of satisfaction of our customers serves as a guideline for us. We gauge it by the trend in our sales, the complaints from customers and the atmosphere during talks.

By including our suppliers and cooperation partners - supplier assessment and customer satisfaction - we ensure that the services and products purchased are also in line with our quality level.

All processes are regularly subjected by us to a check on their usefulness and suitability. In so doing, we consciously question the processes that have been used hitherto in order to arrive at lasting improvements.

Implementation of the quality policy is a duty for all employees. The training and further education of our employees ensures that the latter are able to develop themselves further, identify themselves with their work and the aims of the company, and strengthen their awareness of quality as independent and responsible-minded employees. Every single employee is responsible for the quality of his work.

QUALITY CHARTA

QUALITY THROUGH EXPERTISE

INNOVATION – ALWAYS ONE STEP AHEAD

MAXIMUM CUSTOMER SATISFACTION IS OUR GOAL

IMPRESS CUSTOMERS AND EXCEED EXPECTATIONS

DEDICATION TO HIGH STANDARDS WITH DECADES OF EXPERIENCE

COST-EFFECTIVENESS COMBINED WITH OPTIMUM ENERGY EFFICIENCY
AND AVAILABILITY

AWARENESS OF HUMAN AND ENVIRONMENTAL ISSUES

SUSTAINABILITY

As can be seen from our corporate values, sustainability is a key component of CTP's business strategy.

Sustainability to us means responsible corporate behaviour, now and for future generations.

We care for sustainable and long-term relationships with our customers. Our aim is to meet our customers' individual needs and to offer them our best possible service in order to promote safe and environmentally friendly action.

Good communication to our employees is a particular concern for us. We focus on a health-promoting leadership. As part of the occupational health promotion we have set ourselves the goal to improve the general well-being at the workplace. Building structural framework conditions should help further optimize key processes and increase the psychosocial well-being and confidence in the company.

We are committed to the principles of sustainable business and to a process of ongoing improvement in the following areas:

- Safety
- Environment
- Quality
- Health

SAFETY POLICY

The main purpose of the safety and environmental policy is the creation of safe and environmentally sound working conditions as well as the avoidance of any possible risk to health and the environment, and ensures the personal safety of those working internally and externally on projects, as well as that of customers and subcontractors.

Safety and protection of the environment are regarded as essential for our operations and must be paid attention to in the same way in all departments.

In order to meet the primary objectives of the safety and environmental policy, certain priorities have been set:

- Observance of government guidelines with regard to safety, health and protection of the environment.
- Every employee is offered safety training, as and when required, before the work is begun.
- Along with the written operational instructions, safety and environmental instructions are issued, as and when required.
- The experience gained from previous incidents or accidents is used to make improvements and passed on.
- Only tools and equipment that comply with safety and environmental standards are used.
- Equipment and tools are regularly checked.
- SCC certification or equivalently high safety and environmental standards are demanded from key subcontractors

CERTIFICATES

CERTIFICATE **TÜV AUSTRIA**

Management system as per SCC[®]:2011

In accordance with TÜV AUSTRIA CERT procedures, it is hereby certified that

CTP
CTP-AIRPOLLUTIONCONTROL.COM

CTP - Chemisch Thermische Prozesstechnik GmbH
including the departments: Sales, Administration, Mechanical Engineering
with Construction, Product Management, Research & Development,
Automation, Software and Service
Schmiedstrasse 10
A-8042 Graz

applies a management system in line with the above standard for the following scope

turn-key equipment and systems for the purification of industrial waste gases

Certificate Registration No. 201064200652 Valid until 2021-09-13
Initial certification: 2005-06-09

Noraf
Certification Body
at TÜV AUSTRIA CERT GMBH Vienna, 2018-09-14

This certification was conducted in accordance with TÜV AUSTRIA CERT auditing and certification procedures and is subject to regular surveillance audits.
TÜV AUSTRIA CERT GMBH Deutschstraße 10 A-1230 Wien www.tuv.at

ZERTIFIKAT | CERTIFICATE | CERTIFICAT | CERTIFICADO | CERTIFIKAT | 證書 | 証明書

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Automation, Software and Service
Schmiedstrasse 10
A-8042 Graz

applies a management system in line with the above standard for the following scope

turn-key equipment and systems for the purification of industrial waste gases

Certificate Registration No. 201007438 Valid until 2021-09-13
Initial certification: 1997-12-01

Noraf
Certification Body
at TÜV AUSTRIA CERT GMBH Vienna, 2018-09-14

This certification was conducted in accordance with TÜV AUSTRIA CERT auditing and certification procedures and is subject to regular surveillance audits.
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QUALITY THAT CAN BE SEEN

IT MOTIVATES US TO FIND THE BEST SOLUTION FOR YOU.
SOLUTIONS WITH THE ECONOMICAL PLUS:
UNWANTED CONTAMINANTS IN THE WASTE GAS ARE
CONVERTED INTO USABLE ENERGY.

SYSTEMS

OXIDATION

- + Regenerative thermal oxidation
VOXcube, AutoTherm, EcoTherm
- + Direct thermal oxidation
MultiTherm
- + Catalytic oxidation
RecuKAT, AutoKAT

REDUCTION

- + Selective catalytic reduction (SCR)
RecuNOx, NOxTherm, AutoNOx
- + Selective non-catalytic reduction (SNCR)
VOCNOxTherm

ADSORPTION

- + Fixed bed adsorption
VOXsorbTherm
- + Rotating adsorber
RotorSorb

ABSORPTION

- + WetSorb

FILTRATION

- + SCFS

COMPONENTS

CATALYSTS

- + Honeycomb block and random catalysts

CERAMIC HEAT EXCHANGERS

BURNERS

- + Multi-fuel burner MFB 700, MFB 2000
- + HVOC, zone0 and fuel gas injection
- + Liquid fuel injection

VALVES

- + Poppet valves
- + Hot gas valves BVH
- + Butterfly valves BVS

PRESSURE COMPENSATION DEVICES

- + Pendulum flap
- + Vacuum protection/overpressure flap

SPECIAL SAFETY CONDUIT

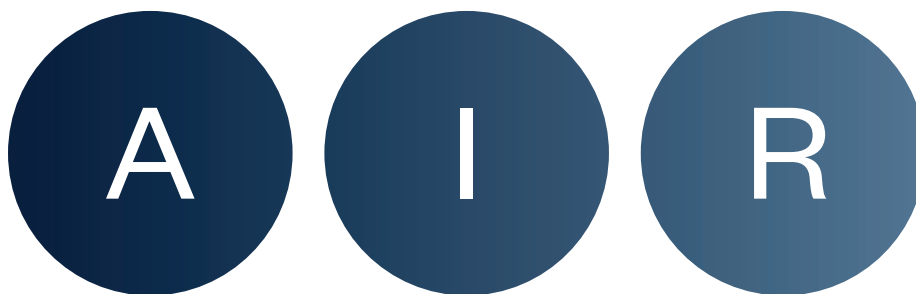
- + LEL monitoring
- + Safety bypass
- + Explosion flaps/bursting discs
- + Extinguishing systems

ANALYTICS AND MEASUREMENT TECHNOLOGY

VISUALISATION SYSTEMS



FOR THE CLEAN



THAT WE BREATHE



CTP Chemisch Thermische Prozesstechnik GmbH
Schmiedlstrasse 10, 8042 Graz, Austria
Phone: +43 316 4101-0, Fax: +43 316 4101-80
office@ctp.at, www.ctp-airpollutioncontrol.com