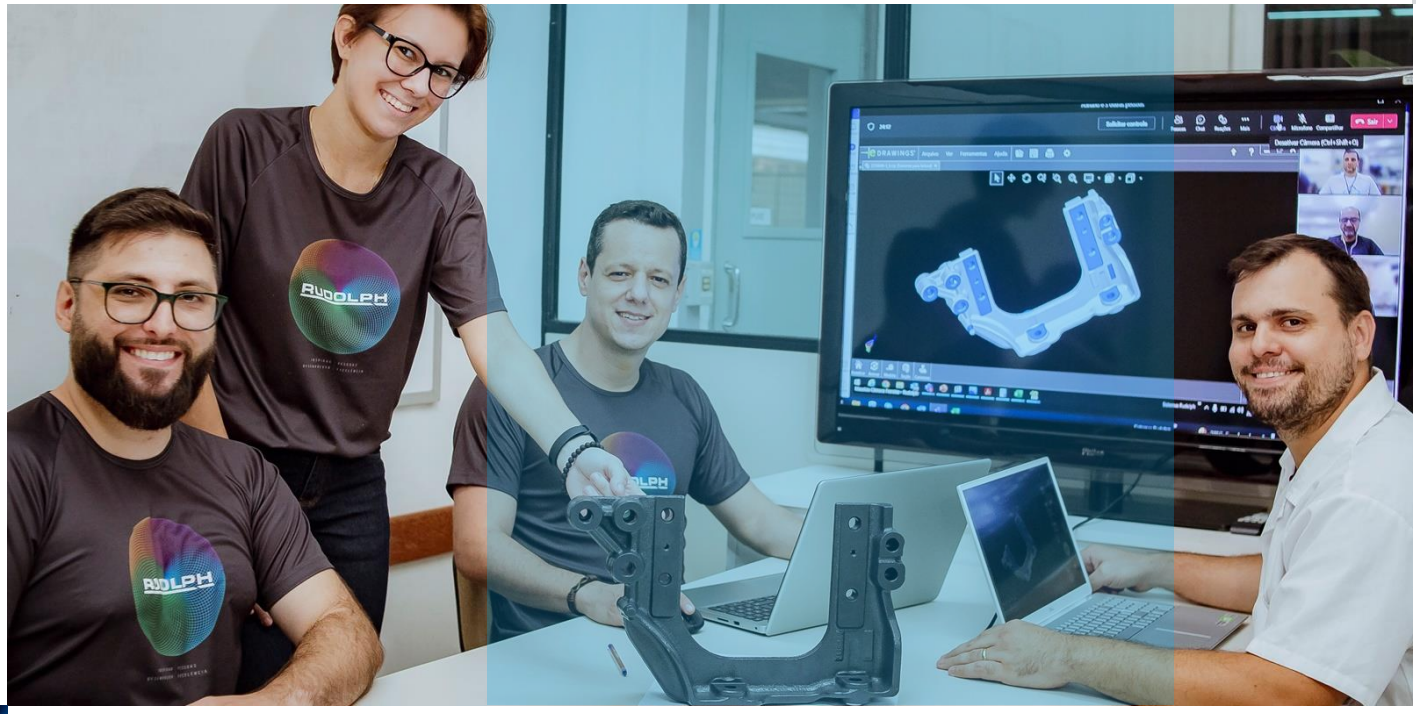
RUDOLPH

Excellence in the supply of mechanical systems



RUDOLPH SUPPLIERS MANUAL

Evaluation and Development

Version 32
March | 2023

CHRISTAL

People build excellence

Index

1. PRESENTATION

We are a multinational company of the CHRISTAL team. A stage for the development of people and business in Brazil and Europe. We create and deliver complete solutions in mechanical systems, from the simplest to the most complex.

The symbol of RUDOLPH, since its foundation in 1973, has always been quality. Much more than a word, it sums up our deliveries. It is a non-negotiable value for us. It demonstrates the level of performance and commitment of our team focused on and excellence and total satisfaction of client.

1.1 Introduction

The purpose of this manual is to improve the relationship between RUDOLPH and its suppliers, based on agreements based on the principles of our companies, reflecting our essence and desire for joint development.

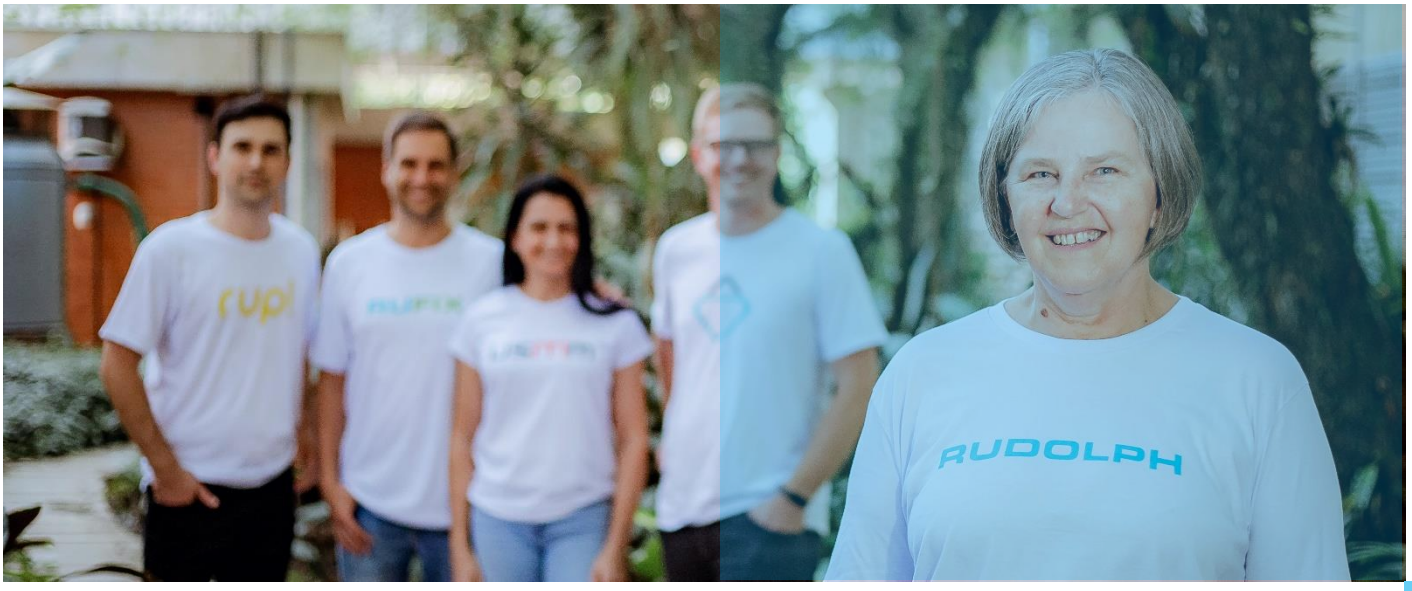
This manual summarizes the useful systematics between RUDOLPH and its suppliers to ensure safety in Design, development, production, on installation and maintenance of our products, contributing to the success of our business.

The application of its requirements demonstrates the total commitment of suppliers in obtaining and supplying products that meet the levels of performance, safety, quality, reliability and costs demanded by the chain.

1.2 Goal

Evaluate the potential of the quality management system at the request of the supplier, qualify it according to the requirements demanded by RUDOLPH and develop it in order to meet the requirements of IATF 16949, ISO 14001 and other specific standards applied.

This system must ensure the prevention and detection of possible non-conformities during the development and manufacturing process, focus on quick and effective corrective actions, aimed at improving and ensuring the delivery of products in accordance with the specified requirements.



1.3 Ideology

The Company´s Management assures that RUDOLPH´s Ideology is:

Purpose	Vision
Inspire and develop people for excellence	*Be a robust and sustainable company in the acting segment*

Principles	Valuable Proposition
Serve, Boldness, Integrity, Sustainability and Appreciative Look	*Excellence in systems delivery mechanical, with integrated solutions for industry*

Politics

Rudolph's symbol is Quality*.

1. We ensure a motivating environment, supported by prevention, that results in personal and professional development, based on a culture of commitment.

2. Our most important quality criterion is the satisfaction of our shareholders, employees, customers and suppliers, as well as compliance with legal and other requirements.

3. We aim that the requests, specifications and posture of all of us, and with whom we interact, are in accordance with our values and our ability to serve.

4. The recommendation for new orders must be based on the continuous improvement of our processes, products, technology and costs.

5. Our commitment to shareholders, employees, customers, suppliers and the community is to contribute to their development and share results.

**Quality for RUDOLPH has broad significance. Therefore, it involves from anyone planning up to the management of all processes; aims to meet explicit (requests) and implicit (desires, culture, value) expectations; and, focuses on the development of people and the preservation of the environment.*

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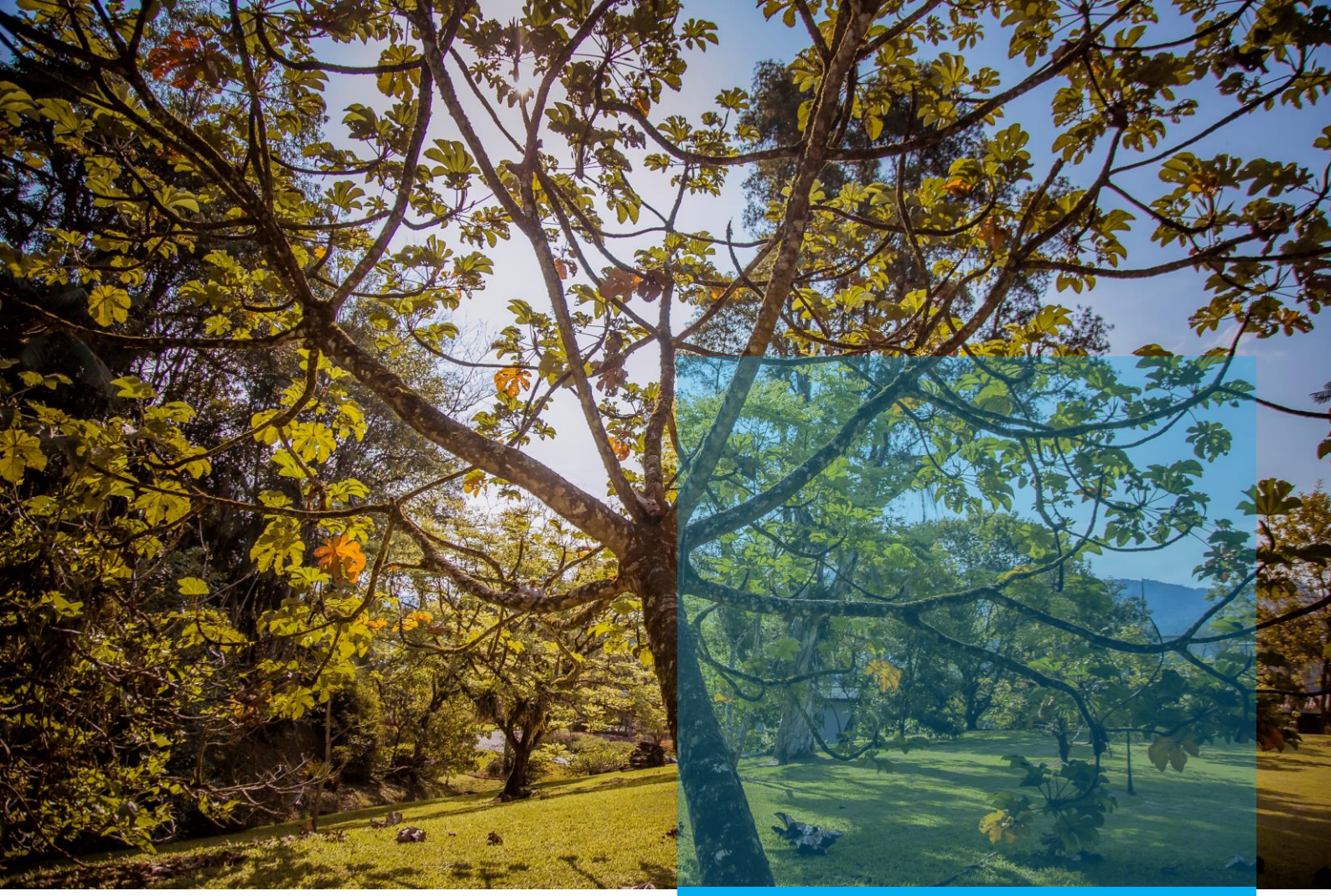


Our zeal and responsibility towards the environment require us to take special care of the various processes that exist in the company.

Although the generation of effluents and waste is low, they are neutralized and/or disposed within criteria consistent with our principles, without polluting or degrading the environment.

All topics covered in this manual are guided by the company's policy. These topics, if respected and fulfilled, constitute excellent means for achieving the satisfaction of our shareholders, employees, customers and suppliers.

1.4 Conduct and Social Responsibility

Our suppliers must always act in accordance with applicable labor and social security laws, including those related to freedom of permanence in employment, compensation of working hours and limits on working hours (regulatory and extra). We consider this basic and mandatory, as well as the repudiation of forced labor, moral and sexual harassment, and all types of discrimination (race, religion, sex, life or physical conditions).

We want our suppliers to work to build an ecosystem that fosters creativity, enthusiasm and collaboration, that ensures people's health and safety, and that continuously seeks to develop it

Supplier shall implement all safety measures in connection with the design, execution and supply of products and/or services to RUDOLPH, and shall inform us of any deviations that occur.

The RUDOLPH's Code of Conduct must be respected by all parts of the business, and is available on the website www.rudolph.com.br.

2. SELECTION AND SUPPLIER DEVELOPMENT

2.1 Supplier selection phase

The pre-evaluation of the supplier profile measures the potential of new partners, locations and so far unknown technologies. The process of selecting suppliers, materials and services is carried out through the RUDOLPH Outbuycenter procurement portal, where a positive evaluation is not necessary in a contracting decision, but a negative potential analysis excludes the applicant company.

2.2 Stage of establishment of trade and quality agréments

When applicable, we have established a long Term agreement (LTA) supply agreement, covering all commercial terms applicable to orders, which may be issued for the purchase of predefined goods or services during its term; ensuring a reliable source of supply.

The LTA will provide details of specific conditions for supply as well as supplementary quality agreements to this manual.

2.3 Visit and communication

RUDOLPH contributes to the development of its suppliers through visits and the evaluation of the partner's system, carried out remotely, based on an advance request from the purchasing or quality areas.

We encourage suppliers to express their doubts and need for technical assistance by directing requests to Supplier Quality Management, which is a facilitator for technical matters. If the issue is commercial, contact should be directed to the supply area.

We reserve the right to visit the supplier's premises accompanied by our customers and when necessary, we will schedule in advance.

2.3.1 Approval

RUDOLPH selects its suppliers based on need, and the decision is made by the areas of supply, engineering and quality. To be included in the base of approved or developing suppliers, the supplier of raw materials, components or service provider must meet these requirements:

- ISO 9001 certification (required),
- Environmental operating license or equivalent, or waiver certificate (required),
- Certification to IATF 16949 (desirable),
- Certification to ISO 14001 (desirable),
- Self-assessment to standards CQI-9, CQI-11, CQI-12, CQI-027 (when applicable),
- RUDOLPH's system and process audit (when applicable).

To meet the requirements of IATF 16949:2016, suppliers of materials and services for automotive items must have, at least, their quality management system certified according to NBR ISO 9001, being prioritized in new developments the suppliers with the lowest risk / best performance in the IQF, and in their quality management system. For suppliers not certified by IATF 16949 in its latest revision, we recommend establishing a schedule for implementing the requirements following the steps described below.

Suppliers without certification will be part of the Rudolph-approved supplier base, when they are requested specifically by customers as targeted sources for purchase or "direct buy" modality

To achieve the implementation of the requirements of the automotive standard, we recommend to follow these steps:

1. *Certification in ISO 9001 through 3rd part audit. Unless otherwise specified by the customer, the suppliers ought to show compliance with ISO 9001, maintaining a third-party certification issued by a certification body, bearing the accreditation mark of a recognized member of IAFMLA (International Accreditation for Multilateral Recognition Arrangement).*

2. *Certification to ISO 9001 in accordance with other QMS requirements defined by the customer, such as specific or minimum automotive quality management system requirements suppliers and sub-suppliers, through self-evaluation.*

3. *ISO 9001 certification in compliance with specific and minimum requirements (MAQMSR). IATF 16949 through 2nd part audits.*

4. *Certification to IATF16949 through third party audit (valid 3rd party supplier certification by IATF recognized certification body).*

Suppliers who fall into at least one of the critical situations listed below must implement a quality program/system that meets the minimum requirements of IATF 16949, or have an action plan for the improvement of their quality management system.

Have supplied RUDOLPH raw materials, components or services which have directly affected the quality of the product supplied to the end customer.

Have generated field problems, such as: end customer complaints, recall, warranty returns.

Have a significant impact on RUDOLPH's process or the end customer, such as: production stoppage due to immediate failure; material, component, product or service sold outside of agreed specifications or time-frames.

2.3.2 Homologation audits

The process and system audits, and the monitoring of products / services are carried out with suppliers based on the method set out in Table 1, 2 and 3. The percentages of

performance of the IQF present in Table 3 refer to the average of compliance with the individual goal of the supplier stipulated for each indicator accumulated in the current year.

The supply risk criterion is defined by multiplying the weight of each item assessed in Tables 1 to 3, and Table 4 defines the supply risk criterion by the grade obtained.

Table 1 – Supplier risk analysis for certification:

Certification	Weight
IATF 16949	1
ISO 9001 – with schedule for implementation of IATF 16949	2
ISO 9001	3

Table 2 – Supply chain risk analysis:

Supply Chain	Weight
It does not provide for automotive chain, does not provide security item and is not exclusive supplier. Other sources approved by RUDOLPH or customer (direct buy)	1
Services or products of the automotive chain, does not provide security item and is not exclusive supplier. Other sources approved by RUDOLPH or customer (direct buy)	2
Services or products of the automotive chain classified as safety. It is not an exclusive supplier. Other sources approved by RUDOLPH or customer (direct buy)	4
Exclusive supplier (single source), independent of the branch of supply	6

Table 3 – Risk analysis for IQF performance for the year:

IQF performance for the year	Weight
Overall average >= 90	1
Overall average > 80	2
Overall average > 50	4
Overall average < 50	6

Table 4 – Risk analysis based on analysis grade:

General Supplier Grade	Weight
<= 6	Low
>6 and <= 16	Medium
> 16	Higt

The schedule of events is defined semiannually, or in critical cases, as quality deviations and / or delays that significantly affect RUDOLPH. The frequency and timing of audits follow the criteria in Table 5, which considers the degree of supply risk.

In these units, the compliance with the minimum requirements of IATF 16949 will also be evaluated, when applicable. The goal is to leverage the continuous improvement process at the supplier and reduce or eliminate supply problems, potentially reducing the degree of risk.

The sources directed by the customer or the "direct buy" modality, considering the indication through formal means: emails and supply contracts, will not receive the RUDOLPH process/system audit and certification level control, as they will be conditioned to the specific requirement of the customer.

The supplier that goes more than a year without supplying RUDOLPH will not be in the audit schedule for the current year. If there's a purchase reactivation request for this source, a new audit scheduling will be performed.

Tabela 5 – Frequência para auditorias de sistema/ processo:

Risk Level	Frequency (up to)
Low Risk	5 years
Medium Risk	3 years
High Risk	1 year
Suppliers appointed by the customer or "direct buy"	Exempt
Quality disruptions or significant deliveries *that cause RUDOLPH line stops or costumer*	60 days

When performing the system/process audit, Table 6 defines the approval criteria according to the percentage of score achieved by the supplier.

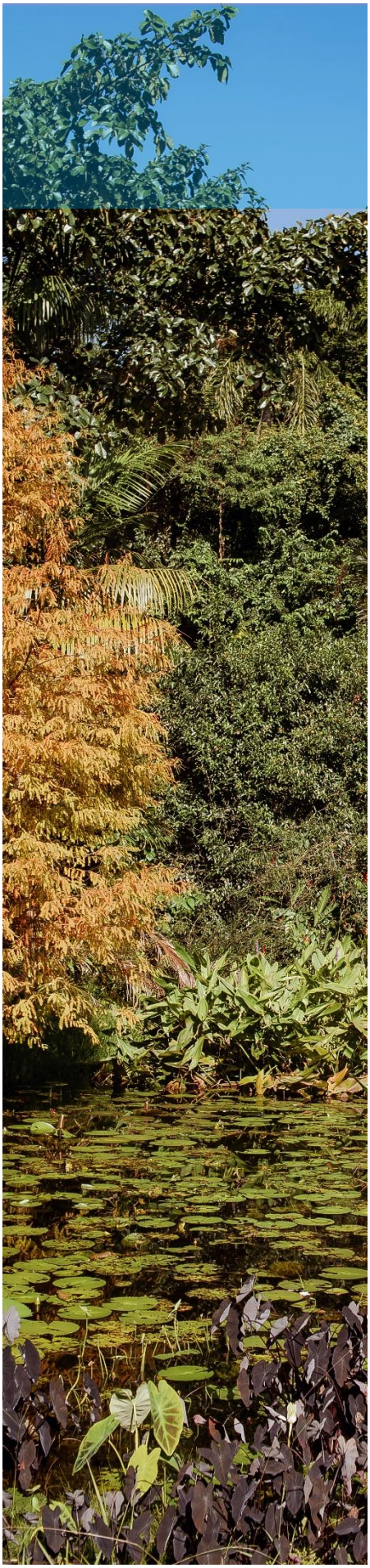
Table 6 – Classification according to the score obtained in the audit:

Score	Classificação
Over 90%	Approved (Concept A)
Between 80% and 90%	Conditional approved, requires action plan (Concept B)
Below 80%	Supply failed or suspended until the implementation of actions (Concept C)

The action plan must be submitted by the supplier within 15 days. If the supplier is classified as “conditionally approved", the verification of the effectiveness of the action plan will not depend on a new audit. However, if the supplier obtains a rating below 80, he must undergo another audit to verify the evidence implemented in his plant.

Suppliers of chemical products that have no interaction with the material or dimensional characteristics of the products, disposable packaging (cardboard) and small tools are released from audit. Suppliers of special tools are monitored internally through incoming inspections and developments are preferably, with supplier certified to ISO 9001.

2.2.3 Environmental assessment



Suppliers are encouraged to comply with ISO 14001, with preference given to certified suppliers.

Suppliers considered critical, who are certified in 14001, they must complete an environmental self-assessment (Annex 6.7 GQ-019), committing to the veracity of the information and send a copy of the required documentation to RUDOLPH. The self-assessment will be valid for three years when the supplier l approved, and one year when approved with restrictions. In case of failure, applications will be suspended until adequacy and new audit.

Suppliers considered critical, and who are not 14001 certified, will receive face-to-face audits (Annex 6.9 GQ-019). The audit will be valid for three years for proven companies, and one year for approved with restrictions companies; in case of failure, applications will be suspended until adequacy and new audit.

Non-critical suppliers shall provide current documentation as defined in this manual.

This monitoring is applied to all suppliers that may generate some environmental impact that is, in some way, under Rudolph's co-responsibility, such as: suppliers of oils, chemicals, painting services, heat and surface treatment, raw material suppliers, industrial towel cleaning, waste disposal, waste or chemical transport.

Critical suppliers to the RUDOLPH Environmental Management System are considered: transporters of waste and class products; companies that make the final destination of waste; enterprises that provide heat treatment, painting and processing services, cleaning of industrial towels, lamp decontamination; and companies that provide wastewater treatment services.

2.2.4 Assessment – CQI-9, CQI-11, CQI-12 and CQI-27

Heat treatment, surface treatment, painting (internal or third party), casting and plastic molding suppliers should seek adequation to the following standards:

- CQI-9 - Heat Treatment System Assessment (HTSA);
- CQI-11 - Plating System Assessment (Evaluation of Surface Treatment);
- CQI-12 - Coating System Assessment (Evaluation of the Painting Process);
- CQI-27 - Casting System Assessment (Evaluation of the Casting Process).

The supplier must carry out the adequacy through self-assessment, in conformity with AIAG standard forms, including the action plan for the requirements not met or not applicable. RUDOLPH reserves the right to audit the supplier when deemed necessary. The frequency of this evaluation and request is annual.

2.2.5 Indicated sources or customer "Direct buy" mode

When indicated the Direct Buy from a source approved by the customer, upon compliance with the applicable specific requirements or in the form of "direct buy", RUDOLPH will not apply the selection requirements, certification level, approval process and face-to-face or remote audit, provided for in this manual.

2.2.6 Requirements for internal or external laboratories and calibration service providers

Suppliers of calibration, metrology and testing, and calibration service providers to suppliers, shall be considered eligible provided that the laboratories are accredited by ISO/IEC 17025 and national equivalents, such as: INMETRO, RBC, RBLE; or that is evidence of a second party audit meeting the requirements of ISO/IEC 17025 or national equivalents.

2.2.7 Advanced Quality Planning (APQP)

RUDOLPH wants all raw material and service suppliers to use the APQP tool (Advanced Quality Planning and Control Plan), in new developments, according to the AIAG manual, distributed in Brazil by the IQA (Institute of Quality Automotive).

The excellent communication between supplier and RUDOLPH, during the APQP, will be key to the success of the project.

2.2.7.1 Production Parts Approval Process (PPAP)

The submission required for the Production Part Application Process (PPAP) to the raw material and services suppliers is Level 3, according to the AIAG PPAP Manual - 4th Edition. For materials and services where RUDOLPH does not supply parts to automotive customers, the PPAP may be submitted at Level 2.

When PPAP submission is required at another level, there will be prior communication in the development process.

The pieces or lots of samples must be sent to RUDOLPH always accompanied by the PPAP documentation, depending on the level of submission requested. In case the systematic is not complied with, we reserve the right to reject and return the parts or the lot.

Parts shipped with the PPAP must be taken from a significant production lot. This phase must be two hours, with the production quantity specified by RUDOLPH, being at least 30 consecutive pieces. Any difference should be discussed with RUDOLPH's Supplier Development Area.

The manufacturing phase should be conducted at the production site, at the production rate, using production tooling, production meters, production process, production material and production operators. In the case of bulk materials, the quantity produced must be from a batch of the linear operation of the process.

During the PPAP phase, any out-of-specification results are grounds for suspension of a PPAP sampling part/ product, documentation, or records. When this occurs, RUDOLPH must be notified immediately, and the provider must correct the process. If, upon receipt of the request for quotation for the item, the supplier does not consider itself capable of meeting the PPAP requirements, RUDOLPH must be notified prior to sending the quotation in order to determine the most appropriate corrective action.

Documents specified in the AIAG PPAP manual that cannot be delivered to RUDOLPH shall be available for consultation at the supplier's premises.

The PPAP documentation must be sent in a single file, compiled in the PDF version, and forwarded to the PPAP unit. RUDOLPH in Brazil through e-mail: ppap.rubr@rudolph.com.br; and for unity RUDOLPH in Europe: ppap.rueu@rudolph.com.br .

2.2.7.2 IMDS (International Material Data Sytem)

To meet the requirements of our end customers and European Community regulations (Directive 2000/53/EC - End of Life Vehicle) regarding the prohibition or restricted use of heavy metals such as mercury, cadmium, lead and hexavalent chromium in vehicles and vehicle parts, suppliers must, when applicable, register the raw material and its chemical position in the IMDS (www.mdsystem.com).

They must also provide a declaration of conformity for development situations of new items, replacement of raw materials, changes in processes and any other situations where this requirement applies; or when required by RUDOLPH.

To send the IMDS registration, use the ID 24931 - RUDOLPH Usinados. Compliance with these guidelines is part of the PPAP documentation and a mandatory requirement for its approval.

2.3 Supplier Maintenance and Control Phase

2.3.1 Supplier Performance Index (SPI)

Suppliers of raw materials and services are monitored monthly through the SPI (Supplier Performance Index). Data is compiled and sent to each supplier, portraying their performance in the previous month.

The goals for each indicator are set by RUDOLPH at the beginning of the year, and can be reviewed. They are individual targets for each supplier, aimed at continuous improvement and based on the previous year's performance. New suppliers receive suggested initial targets agreed upon between the parties. The supplier is encouraged to discuss the stipulated goals, so that they are tangible, and he can act effectively to achieve them.

The Supplier Performance Index is based on three criteria:

- Incidents per billion (Inc/Bn)
- CAP response
- Delivery performance

2.3.1.1 Formula and calculation of the incidents per billion indicator (Inc/Bn)

The number of incidents per billion is calculated by the number of claims of supplier, divided by the sum of the delivery quantities (kg, pieces or other unity) and multiplied by 1 billion. The number represents the ratio of the amount of quality deviations for every 1 billion kg/pieces supplied.

$$me/\,bn = \frac{number\ of\ incidents}{sum\ of\ delivery} \times 1000000000$$

The indicator of incidents per billion is cumulative, that is, it is the sum of all incidents divided by the sum of supply from the beginning of the year to the month of analysis.

2.3.1.2 Formula and calculation of the PAC response indicator

CAP is the acronym for Corrective Action Plan, a document sent to the supplier in the event of a complaint. The CAP response index measures the quality of action plans. Four items are evaluated for each cap, as shown below. The evaluation of each item is carried out when the corresponding answer is received, and scored in the month of immediate expiration. If there is more than one item to be scored in the month, the value considered in the IQF refers to the average of the scores.

In the months in which there is no opportunity to score, 100 points will be considered, which will make up the annual average. When the deadline for an item to be evaluated expires and it is unanswered, the score is reset; it may be corrected in the next submission of the indicator, if it changes.

The deadlines for items (containment, the analysis of cause and plan of action, implementation of actions/submission of evidence) that expire at the end of the week or holidays will be automatically postponed to the next business day.

2.3.1.3 Initial containment response time

This item evaluates the response time for containment actions. The deadline set for the initial containment is two days from the sending of the complaint by e-mail. The weight of this item in the composition of the average is 1. The score is performed according to Table 7:

Table 7 – Score for containment response:

Condition	Score
Initial containment on time	100
Initial containment out of time	0

2.3.1.4 Response time of actions and cause analysis

Here the time for the execution of the cause analysis with action plan is evaluated. The desired deadline is 10 days, with a limit of 15 days to receive 50% of the score. After that the cause actions and analysis response item will be reset. The date considered will be the day on which the cause analysis and action plan is approved by RUDOLPH.

If the cause analysis is insufficient and needs correction, the date considered will be that of the day on which the necessary corrections were made and sent to RUDOLPH. The weight of this item in the composition of the average is 1. The detailed score is presented in Table 8:

Table 8 – Score for cause analysis period and plan of action:

Condition	Score
Cause analysis and action plan approved in 10 days	100
Cause analysis and action plan approved within 15 days	50
Cause analysis and action plan approved in more than 15 days	0

2.3.1.5 Cause analysis and action plan

In this item, the cause analysis is endorsed, which should follow the methodology proposed in the submitted document, contemplating the Hishikawa diagram and the "5 Whys" for the occurrence and non-detection, identifying the root cause for both. With the root cause identified, corrective, preventive and detection actions should be taken (as needed), ensuring the solution and preventing the recurrence of the problem.

Inadequate completion of the Hishikawa diagram and/or "5 Whys", inadequate or insufficient actions, as well as deadlines inconsistent with the action, will result in failure of the analysis. In this way, the cause analysis and action plan score will be based on the number of disapprovals for corrections until reaching a consistent response for the case The weight of this item in the composition of the average is 3. The score is given in Table 9:

Table 9 – Analysis score of cause and plan of action:

Condition	Score
Initial approval	100
1 fail	50
2 fails	25
More than 2 fails	0

2.3.1.6 Sending evidence

The submission of evidence is mandatory to prove the execution of the action plan. Each action described asks for evidence proving its execution. The deadline for sending is the same as that set by the supplier for the execution of the action. To avoid demerit, the extension of the deadline can be negotiated with RUDOLPH, but this must happen before the deadline and with a justification. The weight of this item in the composition of the average is 1. Table 10 shows the applicable score:

Table 10 – Score for sending evidence:

Condition	Score
Shipping on time	100
Shipping up to 2 weeks late	50
Shipping more than 2 weeks late	0
More than 2 fails	0

2.3.1.7 Formula and calculation of the delivery performance indicator

The delivery performance indicator represents the assiduity in the deliveries of material and services.

When the freight is the responsibility of the supplier, the performance considers the effective delivery date, as requested by the purchase order. When the responsibility lies with RUDOLPH, the performance considers the date of issue of the invoice.

It is composed of the average score of all deliveries made in the month. Deliveries that cannot be made within the deadline may be denied, and it is at the discretion of RUDOLPH to accept the new deadline.

Compulsorily, this negotiation must take place before the deadline. The score per delivery is performed according to table 11:

Table 11 – Delivery Performance Score:

Condition	Score
Between 1 day in advance until the deadline	100
Anticipation greater than 1 day	0
Late	0

2.3.1.8 Sending IQF performance to supplier

The Supplier Performance Index (SPI) is a monthly informed to all suppliers of raw materials and services on the approved supplier list. We encourage our suppliers to contact RUDOLPH questioning the performance of the SPI as we believe this initiative strengthens our partnership.

2.3.1.9 SPI analysis and supply blocking

The SPI analysis is performed on a monthly basis, measuring the overall performance of your suppliers. Based on the results, and according to each situation, an internal or supplier compliance schedule can be stipulated, the scheduling of an audit, escalation or action plan solicitation, aimed at improving performance.

The supplier that remains consecutive for more than three months with the attendance of one or more indicators of less than 80%, and with negative trends, may be blocked from issuing new purchase orders, until the presentation of an action plan or performance of a process/ system audit.

2.3.2 Non-compliance report (CAP – Corrective Action Plan)

When non-conformities of the responsibility of the supplier are detected upon receipt, on the production line or in the field (customer), RUDOLPH will issue a formal notification (CAP – Corrective Action Plan) guiding it to the supplier.

The supplier must take on the responsibility together with the analysis of the cause, containment actions, appropriate corrective and preventive actions, in order to solve the problem and avoid recurrences. After the closing of the actions, you must send RUDOLPH the evidence of implementation.

The time limit for response of containment actions is 48 hours, and the analysis of the cause together with corrective / preventive actions will begin in 10 days.

The completion of the action plan described in the CAP may not exceed 60 days from the opening date; unless an exceptional deadline is previously agreed and between RUDOLPH and the supplier.

The verification of the effectiveness of the actions carried out in the PAC may be carried out through a periodic process audit, a follow-up visit to the supplier's plant or through the receipt of the lots subsequent to the end of the actions.

2.3.3 Containment action

To carry out the contention of the parts that are in RUDOLPH, including stock of raw material, material in process and finished product stock, the supplier may be called upon to carry out the immediate removal of this stock, or to hire a third-party company approved by RUDOLPH to carry out the 100% inspection.

After the initial contention of all suspicious and/or non-conforming lots in the RUDOLPH plant, the supplier must send the subsequent lots identified with cutting point. RUDOLPH reserves the right to carry out the sample inspection, with third party company, of the three lots following the cut-off point, to validate the actions of contention. Upon detection of recurrence of the problem in the lots identified with cutoff point, the supplier will enter "controlled shipment Level 1".

The costs of contracting third-party labor due to quality deviation are the responsibility of the supplier, who must make the financial settlement directly with the service provider. Payment via letter of credit or credit card to RUDOLPH may only be made when previously agreed between the parties.

2.3.3.1 Containment in the supplier's plant

When notified through the PAC about the detection of a non-conformity product and if it has stock for RUDOLPH in its plant, the supplier must perform 100% inspection. These products shall be identified by the supplier as the cut-off point, as well as by RUDOLPH's standard identification. The identification of the lots must be communicated to the Development Area of Suppliers and / or Quality of Suppliers.

2.3.4 Scrapping of parts

In case of need, scrapping of non-conforming material can be carried out at RUDOLPH itself. This should be negotiated with the contacts in the Supplier Development/ Quality area.

RUDOLPH reserves the right to return or dispose of non-conforming material in the manner that presents the best cost/ benefit, when this is not done by the supplier in a timely manner (for example based on the cost of return).

2.3.5 Controlled shipment

Controlled shipment is a careful process of additional inspection, preferably performed in a specific place, separate from the production line, where the characteristics involved in the problem will be controlled, ensuring that non-conforming parts are detected, segregated and sheltered until it is certain that the actions taken will act directly on the generating cause of the problem.

2.3.5.1 Determination of the need for controlled shipment

If corrective actions are not effective, RUDOLPH will determine the need for controlled shipment. One or more of the following issues may be considered in determining the implementation of controlled shipment:

- Repeated failures;
- Line stops and/or major interruptions;
- Severity of the problem;
- Improper containment action causing non-conforming parts to reach RUDOLPH or its customers.

Based on the severity of the problem, RUDOLPH will decide on Level 1 or Level 2.

2.3.5.2 Controlled Shipment Level 1

It is a process in which the supplier conducts inspection and review at its plant, in addition to inspections performed during the production process, to safeguard RUDOLPH from receiving non-conforming material.

2.3.5.3 Controlled Shipment Level 2

If RUDOLPH identifies non-compliant parts in the Level 1 controlled shipment regime, the supplier will be placed in Level 2 controlled shipment automatically.

In this case, inspections of the materials/products will be carried out at the supplier's and RUDOLPH's premises, by a third party company (contracted by the supplier) that will represent RUDOLPH's interests specific to the containment activity. This third party will be approved by RUDOLPH and paid for by the supplier.

2.3.5.4 Supplier responsibilities

When notified of controlled shipment (Level 1 or 2) entry, the supplier must take the following steps:

- Controls all non-compliant parts in your production process, in your inventory, as well as those in transit and at RUDOLPH;
- Provide an additional inspection area, separate from the normal production area;
- I reviewed all necessary PPAP documentation and submitted it to RUDOLPH again;
- Plan and implement corrective action plan;
- The supplier is expressly prohibited from carrying out repairs and rework in the containment area;
- The contention process should be conducted independently of the production process and, where possible, a contention should be applied to the defect generating process;
- Define an efficient flow for the material in the containment area, considering clear instructions and identifications and areas for entry and exit, in order to avoid mixing defective materials with approved materials;
- Provide the appropriate identifications regarding the shipment of the material to RUDOLPH, and agree with the RUDOLPH Supplier Management Area what will be followed.

2.3.5.5 Exit criteria for controlled boarding

The period under this scheme shall be subjected to the following criteria:

- Inspection data without registration of non-conforming material in the inspection area, for a minimum period of 90 days after the implementation of the action plan;
- Evidence that a thorough troubleshooting process was useful, that the root cause was discovered, and corrective actions were implemented and validated.

** The supplier must remain in controlled shipment until it receives a written authorization from RUDOLPH for its clearance.*

2.3.6 Acceptance criterion for the product received

All incoming materials are inspected by sampling, according to the control plan defined by our Engineering department.

The acceptance criterion used to evaluate the products upon receipt is defined in accordance with NBR 5426 – NQA zero defect.

2.3.7 Delivery performance

Suppliers must meet delivery times and quantities determined or negotiated in 100% in accordance with the purchase orders.

This performance is monitored by the quality area, which points out the divergences and reports the performance (through the SPI) monthly to suppliers, in order to promote corrective actions.

Non-compliance with the delivery rules, which manage freight and spec IALS to our customers, are monitored, and the costs are passed on to the supplier. An action plan may be requested to prevent recidivism.

2.3.8 Current supply

With each batch sent, the supplier must submit to RUDOLPH: the quality certificate of supplied products, with its chemical composition (when applicable), the measurement report and the mechanical tests or other applicable requirements asked at the time of testing the PPAP. RUDOLPH reserves the right to refuse the material if it is not accompanied by the quality certificate.

The remittance of the quality certificate should be carried out when dispatching any material to RUDOLPH. It can be sent physically, attached to the invoice, or preferably electronically to the address: inspection.receipt@rudolph.com.br.

The supplier must have a secure traceability system in place, so that all materials and parts sent to RUDOLPH can be traced through your invoice.

When not specified for a product / service, the supplier shall retain, for a minimum period of five years, all records related to the control of the materials and products delivered, such as: essay, tests, inspections, reports and risk analysis.

If destructive testing is necessary, the supplier must return the parts properly identified and separated from the production lot, or discard them in its plant. It must also agree with the Rudolph Supplier Management Area the standard to be followed.

2.3.9 Layout inspection and functional testing

The layout inspection must be carried out annually, provided that non-compliance is not detected, through complete measurement of all dimensions of the product/processes presented on project/process record(s), as well as functional material and performance testing.

Suppliers do not need to submit the results of this inspection to RUDOLPH, but must maintain evidence recorded in their plan, for a period of five years; except for special characteristics or insurance items with mandatory documentation, which must follow the applicable retention time.

2.3.10 Confidentiality of information

The supplier shall not disclose to third parties who are not part of the development process any information relating to the development of the product/service provided to RUDOLPH, such as: drawings, models, specifications, standards or customer names.

RUDOLPH establishes a confidentiality contract (“NDA”) between the parties, signs before sending the information to the suppliers, which describes the general clauses to be fulfilled.

2.3.11 Statutory, regulatory and government requirements

RUDOLPH carries out verification relevant to statutory and regulatory requirements during the validation of the parts manufacturing process, taking into account the specifications ex posed in the customers ' drawings and standards. When applicable, these specifications are deployed to the supply chain.

The deployment may be described in the purchase orders, drawings and standards sent by RUDOLPH to its suppliers. It is the responsibility of each supplier, without exception, to meet the requirements applicable to them and to designate the person responsible for the safety of the product/service provided.

2.3.12 Conflict minerals

Conflict minerals are primary materials and/or minerals that come from a part of the world where there is civil war and conflicts that violate human rights in that locality, affect the production and trade of those materials. The supplier whose product contains any of the materials listed below must register free of charge on the website http://www.conflict- minerals.com/, perform the download of the CMRT questionnaire and send it to RUDOLPH with the "Declaration" tab duly completed. *Conflict materials are: tantalum (Ta), Tin (Sn), Tungsten (W) and Gold (Au).*

2.3.13 Environmental regulation and sustainability

The supplier shall operate in accordance with all applicable environmental regulations, including those relating to the handling, recycling and disposal of waste. With regard to the disposal of waste and hazardous materials, that there is a system to assess the environmental consequences associated with a product, service, process or material throughout its life cycle, from the extraction and processing of the material-press to the final disposal, through the phases of transformation and benefiting, transport, distribution, use, reuse, maintenance and recycling. This systematics will aid in the definition of strategies for improvements in the Environmental Management System, which can be evidenced by specific certificates or letters of conformity.

The certification of ISO 14001 is one of the steps to achieve compliance with these requirements. SA8000, on the other hand, is an international certification standard that encourages organizations to develop, maintain and practice their best practices of social responsibility and sustainability in their processes and business.

2.3.14 Packaging

When not specified by RUDOLPH, the supplier must design its packaging in such a way as to prevent risks of accidents, contamination, deterioration, loss of product, damage to transport and weather conditions; at the same time, they must be appropriate to the logistics process of transport.

The following aspects should be taken into account:

- When the material or product has a characteristic or surface critical to quality or operation, it must contain protection against oxidation, dirt, contamination and damage;
- The packaging must serve to accommodate the raw materials and products in such a way as to protect them from weathering and damage in general;
- Packaging must be optimized for handling, moving, storage and transportation;
- When disposable or recyclable packaging is used, it is desirable that these materials are identified in accordance with the norms and standards of recycling services;
- Returnable packaging must allow its complete emptying and easy return, it must also contain "returnable" identification and supplier identification, for better control;
- Packages that have malfunctions in use (e.g. boxes, pallets, racks, protective plastics that are damaged or broken) must be returned in the process and must not be sent to RUDOLPH.

RUDOLPH reserves the right to refuse receipt of raw materials and products that do not meet the above requirements.

2.3.15 Symbology of special features / security

RUDOLPH defines its customers' special relationship of character by linking it to the symbology it uses, which can be identified by identifying the products, services, drawings, work instructions and applicable standards.

RUDOLPH's Symbology	Nomenclature	Definition / Identification
	(Rudolph case review)	Product/process characteristic in which a variation in specification limits can significantly affect RUDOLPH's internal processes.
	(Security, Legislation)	Product/process characteristic in which a variation may significantly affect the safety of the product or its compliance with applicable regulations. For the identification of safety item and legislation RUDOLPH includes the letter "S" in the codes of the products/raw materials and services translated in the purchase orders, drawings and standards.
	(Assembly, Operation)	Product/process characteristic in which a variation can significantly affect customer satisfaction with the product, such as: assembly, function, fit, appearance, or processing ability when manufacturing the product.

RUDOLPH communicates with its partners, sharing information regarding the internal management system and code of conduct through the website www.rudolph.com.br .

Notice 1: The impossibility of attending any requirement determined by this manual shall be communicated to RUDOLPH for review and approval.

Notice 2: we will consider that the supplier has received, analyzed, understood and agreed to add this manual as the basis of its relationship with RUDOLPH, if it is not manifested within 10 working days of its receipt.

ATTACHMENT

RECEIVING PROTOCOL

RUDOLPH asks its supplier to conduct a critical and detailed analysis of this Supplier Manual-QM-002 (revision 32) to understand the points made here; and to contact you if any questions arise.

After that, we ask that you send us this notice, duly completed and signed by the designated responsible party.

Supplier:

Address:

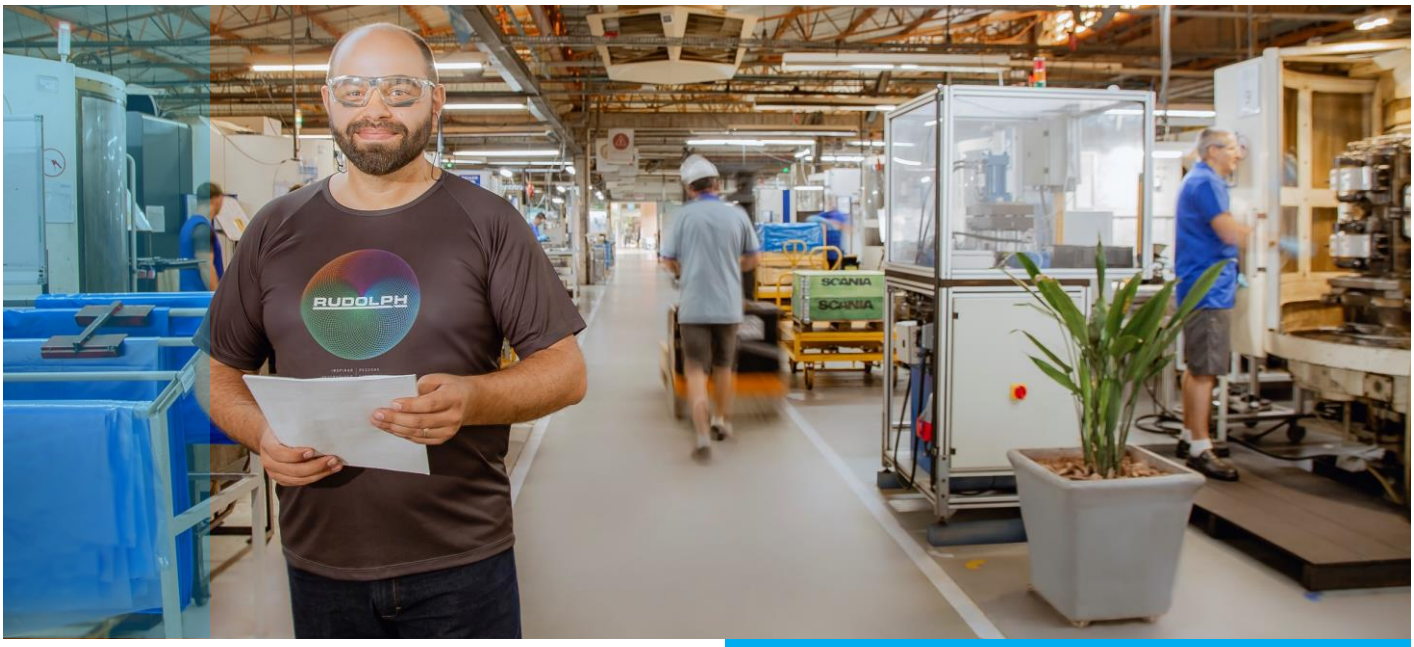
City:

State:

Phone:

E-mail:

Name of person in charge:
Position:
Signature:
Date:



3. REFERENCE

ISO 9001;

ISO 14001;

IATF 16949;

APQP Manual;

CEP Manual;

CQI-9 Manual;

CQI-11 Manual;

CQI-12 Manual;

CQI-15 Manual;

CQI-20 Manual;

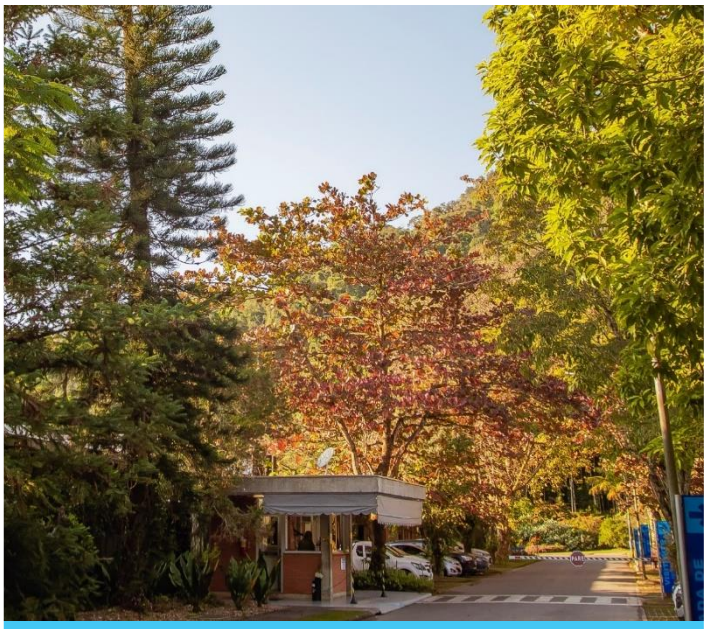
CQI-27 Manual

FMEA Manual;

PPAP Manual;

MSA Manual;

VDA 6.3 (Process Audit).



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RUDOLPH RUFIX rup! USITIM

PALCO PARA O DESENVOLVIMENTO DE PESSOAS E NEGÓCIOS

"É um enorme privilégio poder ser para o que fomos feitos."

Wolfgang Rudolph

CHRISTAL

People build excellence

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