 Lakum Galma Plant: Humpolec	Form name:	Valid from:
	Technical and delivery conditions of LAKUM-GALMA a. s. – the parts supplied to the customer for the surface treatment.	

Warning: Information about the organization, business, personnel and production facts Supplier, which shall become the Customer during the cooperation, including demand-tendering, the Supplier indicates it under the provision § 17 of the Commercial Code for their business secrets, ie. Customer, to whom the information was disclosed, must not provide to any third party or is inconsistent with the purpose for himself or another use. The Supplier shall be entitled after customers require that their employees adhere to the same extent the confidentiality of the above facts with which they are familiar.

This is the agreement on the conditions for cooperation between LAKUM-GALMA a. s. (Supplier) and a customer. This document supersedes or supplements, or is superior to Quality Assurance Agreement between the above mentioned companies in the following areas:

TRADE:

Before commencing the Production of Coating (herein after referred to as PoC) the mutual approval of the physical samples is required. The price can be changed after the approval of the physical samples. A possibility of a standard suspension of the parts on so called Standard Suspension Means (hanging by the appropriate technological aperture with the aid of hooks or small springs) is expected. In case of a necessary production of the special suspensory means, their production including calculation of the costs will be solved additionally.

To comply with the prices mentioned in the price offer, it is necessary to supply components to the surface finish of the agreed quality of basic material and minimum lot of dose (galvanic Zn – 3m², KTL – 5m²)

If the price is in EUR, it must be converted in accordance with the current exchange rate. In case of variance (±3%) the prices will be automatically re-calculated in accordance with the current exchange rate, or a new price arrangement will take place.

This price offer is valid for the period of 3 months from the date of issuance on. After this period, the re-examination of the calculation is necessary. The stated price is without VAT.

Unless otherwise agreed, the price standardly includes neither thread and surface protection nor the transport and the price of the tests relevant to the standard requirements (corrosion tests, resistance against oil substances, etc.).


The standard packaging according to the specification of LAKUM-GALMA a. s. is taken into account in the stated price. Raw parts will be delivered for performance of the PoC in the solid packages (tin boxes, gitterboxes ...), which can be stacked on each other, only in extreme cases they can be delivered on the pallets.

The price for performing PoC with galvanization does not include de-embrittlement (this technology is not at our disposal). For this reason, parts with a strength greater than 1000 MPa, while maintaining strength requirements of the material after plating (due to the formation of hydrogen embrittlement) is not possible galvanically plated.

Capacity – the price quote is not binding for any reservation of a spare capacity for the project. Before a series is started, the capacity must be inquired and investigated again.

If the demand or order no provides otherwise, the thickness of the layer of surface treatment will be in the usual tolerances for the respective technology. It means zinc (Zn) 5 - 20µm, zinc/nickel (Zn/Ni) 6 - 20µm and cathoretic coating (KTL) 15 - 35µm.

The technology that will be applied to the parts is presented in our offer, this offer is issued with respect to our technology and not always in full compliance with the demand. For this reason it is necessary approval of the offer by demander. The ordering of production parts will be taken like approval of the offer also.

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If the order / reference will be in contrary to the offer will be applied to the component technologies mentioned in the offer and any discrepancies will be charged to the customer, as well as the contradiction between the demand and documents for demand (drawings, standards, etc ..) will be charged to the customer.

LAKUM-GALMA reserves the right, without prior notice, to unilaterally increase the prices for the services provided by an amount equal to the inflation rate announced by the ČNB in the past half a year.

LAKUM-GALMA reserves the right to revise the prices listed in the price offer, taking into account the current development of input costs (wage costs, energy, input raw materials).

If there is the absence of mutual agreement between the parties, it will be notified and then the project will be concluded.

TECHNOLOGY, PRODUCTION:

Confirmation of the delivery note / transport sheet we affirm acceptance the number of packing units, not the kind (type) of the delivered goods or the number of delivered pieces.

Parts submitted for the surface treatment must not be corroded they must be free of rough dirt, iron scales and of edges after laser cutting (so called Ceramic). During part welding no silicone agents will be used and the welds will be clean (the optimal processing of the welds is their blast cleaning before surface treatments is performed).

No oil or emulsions with free chlorine, silicon, Teflon, graphite or vegetable oil must be used for the part production. The parts will be supplied without any excessive grease. The maximal level of parts' grease is 2g/m².

In case of supplying parts with the iron scales or Ceramic after laser cutting, the customer must provide the appropriate prior preparation for their elimination. Prior preparation for Ceramic after laser cutting elimination is not included in the offered technology. In case of a demand for the above mentioned specialized prior preparation made outside the assembly line the price asses must be made separately.

The fact, that KTL is not UV stable and so it is not suitable for usage for the final surface treatment of the parts which will be exposed to the sunshine, must be taken into account.

In case of applying another coating layer on KTL (e. g. powder coating) by another supplier, the firing temperature of this coating must not exceed 180°C.

The fact, that the parts will be additionally surface-treated, must be notified before commencing the PoC. LAKUM-GALMA a. s. will not be liable for any defects of the additional surface treatment.


In case of a failure in applying the PoC on any part, or if the PoC shows any unacceptable defect, it is necessary to remove that PoC, which means a delay in delivery to a customer for about 2 weeks. Removing of the defective KTL is made by the external supplier.

The vehicle that the customer uses to refuse painted parts must be with enclosed cargo space in order to prevent subsequent damage of parts and / or packaging of parts due to the weather.

In the case of a customer request for massive zinc coating technology in the Bulks, the customer acknowledges that the components produced by bulk (drum) aren't 100% checked after the surface treatment.

Due to the mass production nature (insertion and dropping of parts from the plating drum), it is not possible to guarantee 100% coverage of all parts and adherence to the thickness of the zinc layer.

In the case of bulk galvanizing in plating drums, a common technological feature is the so-called bonding of parts, which results in the non-corrugation of parts of the surface or the impression of the perforation of the drum in the passivation layer.

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The temperature in the KTL oven during curing is in the range of 180-195 ° C. Lakum-Galma cannot be held responsible for any changes in the shape of the products caused by temperature.


QUALITY:

LAKUM-GALMA a. s. is not responsible for the following defects:

- Blistering or foam appearance resulting from the persistent grease of the raw part
- Space which cannot be coated due to some persistent grease or of grease fired during the process of welding and grease at the suspension points for hanging on the suspension device of PoC assembly line.
- Maps, leaking, outflows and sprays of the coating material generated due to the piece construction (cavities, capillaries, places at the joints, lapping etc.)
- Surface roughness (serious visual defects) arising due to the bad part's surface (iron scales, dirt, etc.)
- Deformation of any raw part delivered by a customer
- Defects caused by transport to/from LAKUM-GALMA a. s. despite the required packaging regulations
- Logistical defects made by a customer (a different number of pieces, mixed pieces at delivery, etc.)
- Craters on KTL caused by so called shooting zinc (hydrogen blocked in zinc); if the Zn or Zn/Ni layer is produced by another supplier, it is impossible to guarantee the compatibility of the whole set of the surface treatment, also the corrosion resistance and the overall thickness of the layer cannot be guaranteed in such case.
- It has to be taken in account that the galvanic plating (Zn; Zn/Ni) is a technical surface and therefore is not possible to claim the resulting surface appearance. This can vary between batches for technological reasons that have no effect on the functionality of the coating.
- The surface treatment of the parts is carried out according to the customer's order, according to his specification. The customer is responsible for the possible influence on the parameters of the parts that are not directly related to the surface treatment (eg surface roughness, thread dimensions, exact / tolerated dimensions, etc.).

Before the serial production commencement the following problems must be clarified:

- Bruises, drips, visual defects and the overall appearance (the surface treatment by Zn, Zn/Ni and KTL is in no case visual surface treatment and this plays part in production and quality assessment. For instance, prismatic effects of the galvanisation coating, or the maps and drips made at the process of cataphoresis cannot be considered as surface treatment's defects provided that the specified corrosion resistance is maintained)
- Welds and edges – for the untreated welds and their near edges the coating and corrosion resistance cannot be guaranteed in accordance with the regulations. These places will be excluded from the assessment.
- The edges after laser cutting – in case the edges after laser cutting are not properly treated (by sanding, sandblasting, etc.) before the surface treatment, adhesion and appearance of these edges cannot be guaranteed.
- Assessment of the interior parts with regard to the formation of air bubbles and thus without any surface treatment. Also the appropriateness of a location of technological openings.
- Extend of sampling and the requalification tests which may be the reason for a possible price quotation adjustment. Necessary time for sample production is 48 hours at minimum, for the duplex or triplex it is three times longer.

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- After sending a sampling message, it is necessary as possible in the shortest time to inform the quality department about approval/disapproval of sampling message. If this is the first delivery of parts and otherwise agreed, consider these parts as samples, for which it is necessary on your part, to approve the quality of the surface finish. By sending other equal parts at next three deliveries with the same surface finish without changing demands will be regarded as approval.
- Packaging the parts before and after the surface treatment. If no packaging instructions are specified by a customer, the parts are packaged as follows:
 - Galvanic coatings – in customer’s crates (pallets), lined with clean paper without interlacing the individual layers
 - Cataphoresis – in customer’s crates (pallets), lined with clean paper, with the additional interlacing of the individual layers by paper and higher layer covered.
- Raw parts must be delivered in those packages which can be stacked on each other, which means the containers for the raw parts must not be overfilled. The customer acknowledges that in the case of using non-standard packaging in which the parts are sent (paper boxes, pallets without enclosures, etc.), the volume of storage units may increase after surface treatment (or it will not be possible to produce and safely pack parts) and will not they can be taken back by the same means of transport, which can delay the order or create additional costs.

Note: The parts with the obvious or during manipulation easily recognisable defects revealed in LAKUM-GALMA before, during or after the coating process which will be caused by the state of the supplied raw parts will be returned to the customer together with the surface treated ones. The customer will be informed about this state in advance.

If no specification is delivered, all surfaces of the parts are considered to be non-visible.

The price offer was prepared on the basis of the general technical characteristics of the surface treatment offered, based on information from the supplier of equipment and technological/chemical preparations for performing anti-corrosion treatment.

The degree of fulfillment of the technical requirements from the demand must be verified on physical samples of the requested parts. The price offer sent does not take into account the method of production and the condition of the material from which the requested parts are made.

Lakum-Galma a.s. reserves the right, without any penalties, to cancel the sent price offer, in the event that the tests carried out as part of the process validation do not meet the requirements of the request.

If the customer waives the performance of the physical tests of the surface treatment, L-G shall not be liable for any future failure to meet the requirements.

The offer is prepared based on the information and requirements given by the client in the request. In the case of other specific customer requirements not specified in the request, the offer may be changed or rejected.

The version is valid to the date of offer issuance or of the offer handover.

Potential changes are available on www.lakum.cz.

Handed over by:

Received by:

Date of handover: