CALCULATION SERVICE DESCRIPTION AND IMPORTANT NOTICES

1. **Calculation Service**

2. **Article Number:** 2150594

3. **Scope**: Hilti in collaboration with the customer prepares a calculation for individual Hilti Installation solutions and an offer for the required Hilti Installation / Anchor / Firestop products according to the terms set out herein. For technical requirements that are out of scope for this service, please refer to section 3 below.

4. **Cost:** The 'Calculation Service' is a **charged service** the rate is £90.00 p/hr

   The process steps of the Calculation Service are as follows:

   1. The customer requests a Calculation Service
   2. Hilti contacts customer to collect all necessary inputs
   3. Hilti sends the customer an offer, consisting of a 'Summary of Request' with an estimated lead time and cost
   4. The customer accepts the offer
   5. Hilti prepares the Calculation Service content and sends to the customer
   6. The customer receives the content
   7. Hilti sends invoice for the service
   8. Customer pays invoice

   The customer is required to provide any missing input information for Hilti to be able to prepare the offer. If the customer is not forthcoming with the required inputs, no offer will be provided.

   If the customer wishes to cancel the service after the offer has been accepted (step 4) they must do so by contacting the Hilti Service Expert by email and the customer will be invoiced for the hours spent on the service up until that point.

   To prepare the offer, Hilti requires clear and detailed information regarding the project-specific technical requirements. Since the process of gathering this required information from the customer is part of the service and charged for, the customer is encouraged to provide clear and detailed service inputs to increase productivity thereby decreasing the service cost to the customer. The most detailed documentation which returns the quickest service output is a Building Plan with the position of applications with specification text.

5. **Service Inputs**

   Prior to commencement of work on the offer, Hilti will send the customer a summary of the input provided by the customer ("Summary of Request") and the estimated delivery date for the offer and costs. The customer is required to check the accuracy and completeness of the information stated in the Summary of Request and inform Hilti of any misalignments in writing by email.

   Acceptance of the offer by the customer means that the customer confirms that (i) the stated technical requirements / customer input are complete and correct and (ii) customer accepts the service offer laid out in the Summary of Request. Hilti will only start working on the calculation upon customer's acceptance of the offer.

6. Calculation Service Output documents

The Calculation Service Output documents include:

1. **A detailed commercial offer and Bill of Material per application,**
2. **1 Complete software calculation report per application**
3. **1 AutoCAD 2D / 3D shop-drawing per application**
4. **1 drawing open file (.dwg) for all applications.**
5. **1 PROFIS Installation Software open file (.hpjx) per application (If applicable).**

1. Detailed Commercial Offer

The commercial offer consists of a PDF Offer Document containing:

a) A cover letter (Fig.1)
b) A Position List (Fig.2)
c) A Material List (Fig.3)
d) Summary of Request

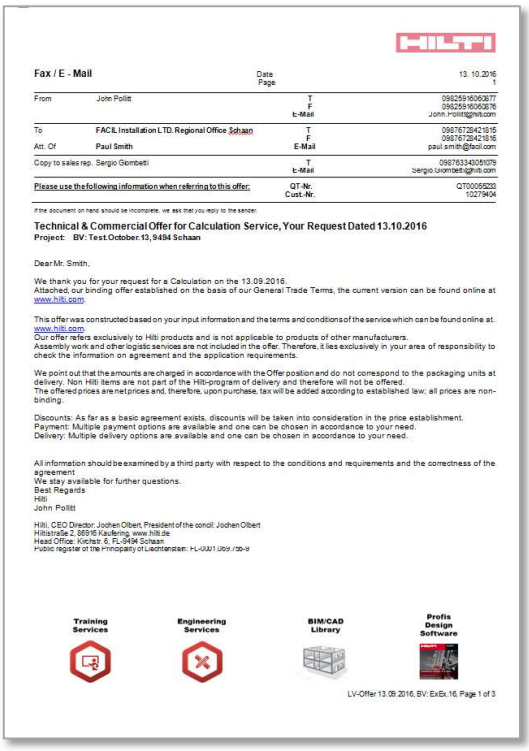
The offer is a binding offer and valid for 30 days. If the Calculation Service is intended for engineering purposes only pricing may be removed leaving the list of supports and constituent parts.

a) **Cover letter** (Fig.1) summarises terms and conditions of offer

b) **Positions List** (Fig.2)**:** The offer comprises of a list of positions; each position represents a support or application which is intended to fulfil the requirements of the customer request. Each position is given a reference number (left most column) this may have been provided by the customer or generated by Hilti. The position reference number may be used as naming for the associated CAD, PROFIS and other output documents and files for that position. Each position contains all articles used in the support / solution with the Article numbers (second column), Units (third column), Description (fourth column), Unit price (fifth column) and Price (sixth column). The positions are summed up to give the 'Sum Total' in the right most columns at the bottom of the position list

c) **Material List** (Fig.3)**:** The material list is a consolidated list of all materials used in the positions and provides prices per the nearest package size. If alternative positions have been offered, then there will be two Material Lists. The first containing all articles which make up the standard positions. The second containing all articles which make up the standard positions except for those positions where an alternative exists plus the alternative positions

d) **Summary of Request**: customer input and assumptions on which the offer and calculations are based



Fax / E - Mail

Date 13.10.2016
Page 1

From John Pollitt
T 0982591606877
F 0982591606876
E-Mail John.Hollitt@hilti.com

To FACIL Installation LTD. Regional Office Schaan
T 09876725421815
F 09876725421816

Att. Of Paul Smith
E-Mail paul.smith@facil.com

Copy to sales rep. Sergio Giombetti
T 098763342061079
E-Mail Sergio.Giombetti@hilti.com

Please use the following information when referring to this offer: QT-Nr. QT00055233
Cust.-Nr. 10279404

If the document on hand should be incomplete, we ask that you reply to the sender.

Technical & Commercial Offer for Calculation Service, Your Request Dated 13.10.2016
Project: BV: Test October.13, 9494 Schaan

Dear Mr. Smith,

We thank you for your request for a Calculation on the 13.09.2016.
Attached, our binding offer established on the basis of our General Trade Terms, the current version can be found online at www.hilti.com.

This offer was constructed based on your input information and the terms and conditions of the service which can be found online at www.hilti.com.
Our offer refers exclusively to Hilti products and is not applicable to products of other manufacturers.
Assembly work and other logistic services are not included in the offer. Therefore, it lies exclusively in your area of responsibility to check the information on agreement and the application requirements.

We point out that the amounts are charged in accordance with the Offer position and do not correspond to the packaging units at delivery. Non Hilti items are not part of the Hilti-program of delivery and therefore will not be offered.
The offered prices are net prices and, therefore, upon purchase, tax will be added according to established law; all prices are non-binding.

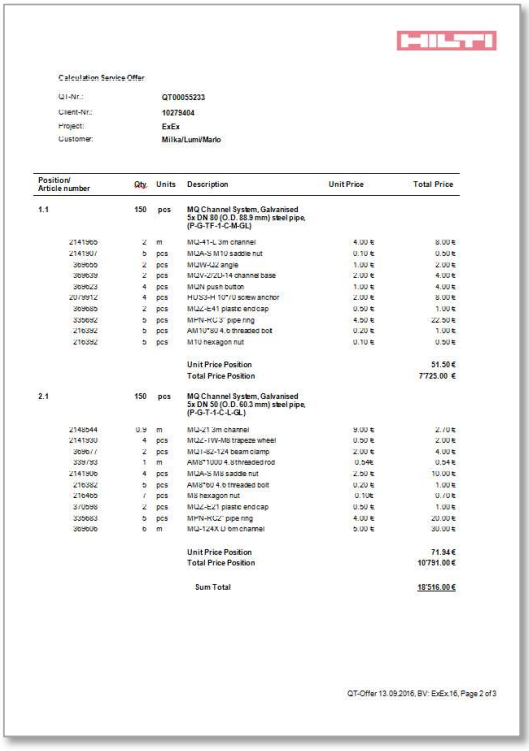
Discounts: As far as a basic agreement exists, discounts will be taken into consideration in the price establishment.
Payment: Multiple payment options are available and one can be chosen in accordance to your need.
Delivery: Multiple delivery options are available and one can be chosen in accordance to your need.

All information should be examined by a third party with respect to the conditions and requirements and the correctness of the agreement.
We stay available for further questions.
Best Regards
Hilti
John Pollitt

Hilti, CEO Director: Jochen Olbert, President of the concil: Jochen Olbert
Hiltistraße 2, 86916 Kaufering, www.hilti.de
Head Office: Kirchstr. 6, FL-9494 Schaan
Public register of the Principality of Liechtenstein: FL-0001.009.795-9

Training Services | Engineering Services | BIM/CAD Library | Profis Design Software

Fig.1 Sample Offer Page1

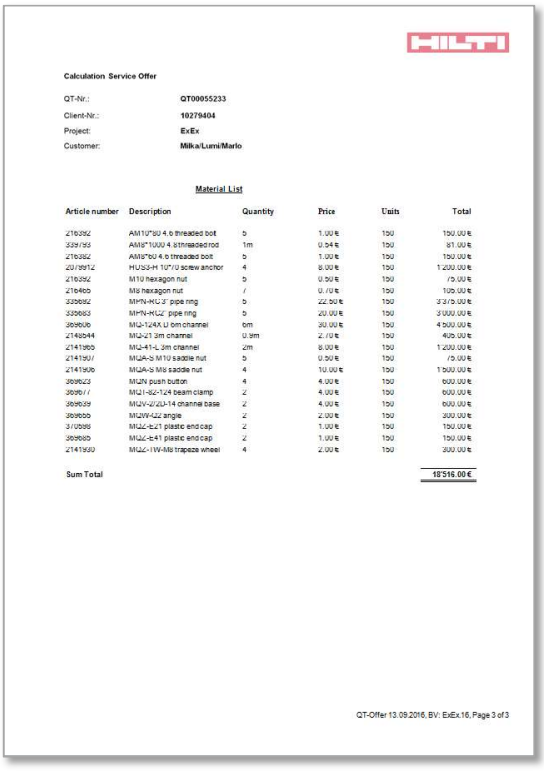


Calculation Service Offer

QT-Nr.: QT00055233
Client-Nr.: 10279404
Project: ExEx
Customer: Milka/Lumi/Marlo

Position/ Article number	Qty.	Units	Description	Unit Price	Total Price
1.1	150	pcs	**MQ Channel System, Galvanised 5x DN 80 (O.D. 88.9 mm) steel pipe, (P-G-TF-1-C-M-GL)**		
2141965	2	m	MQ-41-L 3m channel	4.00 €	8.00 €
2141907	5	pcs	MQA-S M10 saddle nut	0.10 €	0.50 €
369660	2	pcs	MQW-Q2 angle	1.00 €	2.00 €
369639	2	pcs	MQV-2/2D-14 channel base	2.00 €	4.00 €
369622	4	pcs	MQN push button	1.00 €	4.00 €
2079912	4	pcs	HUS3-H 10*70 screw anchor	2.00 €	8.00 €
369665	2	pcs	MQZ-E41 plastic end cap	0.50 €	1.00 €
335692	5	pcs	MFN-HCU 3" pipe ring	4.50 €	22.50 €
216392	5	pcs	AM10*90 4.6 threaded bolt	0.20 €	1.00 €
216392	5	pcs	M10 hexagon nut	0.10 €	0.50 €
			Unit Price Position		**51.50 €**
			Total Price Position		**7725.00 €**
2.1	150	pcs	**MQ Channel System, Galvanised 5x DN 50 (O.D. 60.3 mm) steel pipe, (P-G-T-1-C-L-GL)**		
2149044	0.9	m	MQ-21 3m channel	3.00 €	2.70 €
2141930	4	pcs	MQZ-1W-M8 trapeze wheel	0.50 €	2.00 €
369677	2	pcs	MQH-IBZ-1/24 beam clamp	2.00 €	4.00 €
339783	1	m	AM8*1000 4.8 threaded rod	0.54 €	0.54 €
2141906	4	pcs	MQA-S M8 saddle nut	2.50 €	10.00 €
216362	5	pcs	AM8*60 4.6 threaded bolt	0.20 €	1.00 €
216469	7	pcs	M8 hexagon nut	0.10 €	0.70 €
310586	2	pcs	MQZ-EZ1 plastic end cap	0.50 €	1.00 €
335663	5	pcs	MFN-HCU2" pipe ring	4.00 €	20.00 €
369606	6	m	MQ-124X U bm channel	5.00 €	30.00 €
			Unit Price Position		**71.34 €**
			Total Price Position		**10791.00 €**
			Sum Total		**18'516.00 €**

Fig.2: Sample Offer Position List



Calculation Service Offer

QT-Nr.: QT00055233
Client-Nr.: 10279404
Project: ExEx
Customer: Milka/Lumi/Marlo

Material List

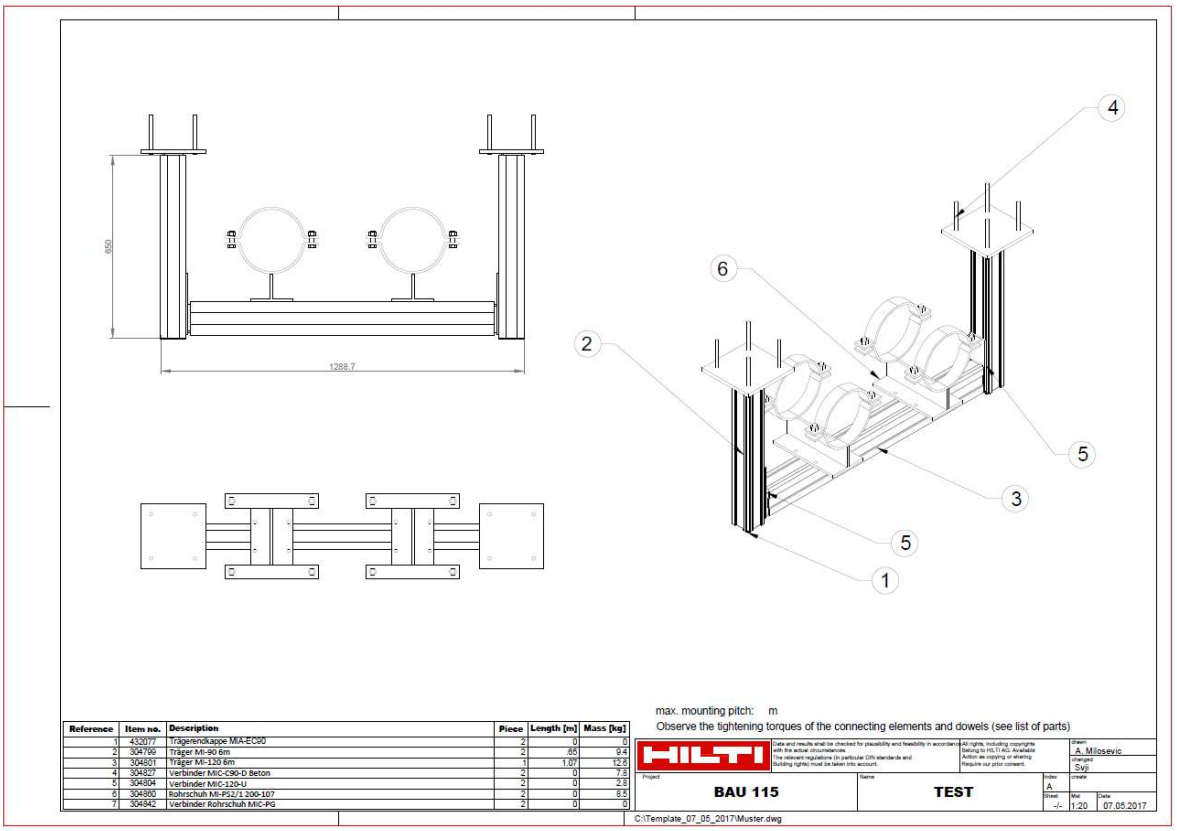
Article number	Description	Quantity	Price	Units	Total
216392	AM10*90 4.6 threaded bolt	5	1.00 €	150	150.00 €
339783	AM8*1000 4.8 threaded rod	1m	0.54 €	150	81.00 €
216362	AM8*60 4.6 threaded bolt	5	1.00 €	150	150.00 €
2079912	HUS3-H 10*70 screw anchor	4	8.00 €	150	1'200.00 €
216392	M10 hexagon nut	5	0.50 €	150	75.00 €
216469	M8 hexagon nut	7	0.70 €	150	105.00 €
335692	MFN-HCU 3" pipe ring	5	22.50 €	150	3'375.00 €
335663	MFN-HCU2" pipe ring	5	20.00 €	150	3'000.00 €
369606	MQ-124X U bm channel	6m	30.00 €	150	4'500.00 €
2149044	MQ-21 3m channel	0.9m	2.70 €	150	405.00 €
2141965	MQ-41-L 3m channel	2m	8.00 €	150	1'200.00 €
2141907	MQA-S M10 saddle nut	5	0.50 €	150	75.00 €
2141906	MQA-S M8 saddle nut	4	10.00 €	150	1'500.00 €
369622	MQN push button	4	4.00 €	150	600.00 €
369677	MQH-IBZ-1/24 beam clamp	2	4.00 €	150	600.00 €
369639	MQV-2/2D-14 channel base	2	4.00 €	150	600.00 €
369660	MQW-Q2 angle	2	2.00 €	150	300.00 €
310586	MQZ-EZ1 plastic end cap	2	1.00 €	150	150.00 €
369665	MQZ-E41 plastic end cap	2	1.00 €	150	150.00 €
2141930	MQZ-1W-M8 trapeze wheel	4	2.00 €	150	300.00 €
Sum Total					**18'516.00 €**

Fig.3: Sample Offer Material List

2. Complete software calculation report

The software calculation report is provided as a PDF document. It contains details of the dimensions, stress and displacement of constituent parts and identifies the utilisation of parts as a percentage of total capacity. The report also contains a dynamic 3D PDF image which allows the user to rotate the assembly and zoom in and out to inspect the parts in closer detail. For more details see section 3 'Details of Calculation Methods'.

3. AutoCAD 2D / 3D shop-drawing per application



Reference	Item no.	Description	Piece	Length [m]	Mass [kg]
1	432077	Trägerendkappe MIA-EC90	2	0	0
2	304799	Träger MI-90 6m	2	.65	9.4
3	304801	Träger MI-120 6m	1	1.07	12.6
4	304827	Verbinder MIC-C90-D Beton	2	0	7.8
5	304804	Verbinder MIC-120-U	2	0	2.8
6	304860	Rohrschuh MI-PS2/1 200-107	2	0	8.5
7	304842	Verbinder Rohrschuh MIC-PG	2	0	0

Fig.4: Sample AutoCAD 2D / 3D shop-drawing

7. Not provided as standard output of Calculation Service

The Calculation Service **does not** consider or provide pricing for solutions that are subject to the following technical requirements:

- Supports considering Thermal Expansion / Contraction
- Seismic Resistant Design
- Fire Resistant Design
- Dynamic Loading

- Pipe Insulation / Avoid Condensation
- Specific Approvals
- Calculation of anchors (see section 3)
- Calculation of third party products.
- Other requirements

If any of the above technical requirements need to be considered, customer must specifically inquire with Hilti whether this is possible. Hilti must agree in writing to provide a solution taking the above technical requirements into account, otherwise they are not considered.

2. General Terms and Conditions for provision of the Hilti Calculation Service

An offer is prepared based on the customer's input which is summarised in the Summary of Request. It is subject to the correctness and completeness of the information the customer provides, and is dependent on the customer having independently reviewed the Summary of Request, as well as the list of requested products and services with regard to any possible specifications provided by third parties (such as planners, developers) and their conformity to technical and legal requirements.

All loading and design criteria supplied by customer in the Summary of Request is assumed accurate. Only the design assumptions stated in the Summary of Request are considered. The customer is fully and solely responsible for monitoring the information in the Summary of Request to ensure conformity with the actual application-related requirements.

Our solutions exclusively refer to Hilti brand products and may not be transferred to products of other manufacturers. The offer does not include assembly work.

In the offer prices are quoted for single products and do not take into account the relevant packaging units. Thus, prices for the overall solution presented in the offer may differ due to the fact that products are only delivered in the applicable packaging units. Items not included are not supplied by Hilti and therefore are not offered.

The prices quoted are net prices and therefore do not include any applicable value added tax; all prices are subject to change.

In case any specific discounts, payment or delivery terms have been prior agreed in writing with customer, these shall apply. Otherwise, the relevant Hilti general terms of sale shall apply.

3. Details and Limitations of Calculation Methods

Designs and calculations are carried out with the relevant Hilti PROFIS calculation software, details about the software, its limitations and underlying measurement methods can be obtained from Hilti. Hilti Designs and calculations are based on model codes, general design standards, and Hilti-published data current as of their creation date.

For Hilti component and connection design see published technical data, including material and cross-section properties, allowable load values, factors of safety, methods of calculation, and limiting factors. The customer or the responsible engineer must verify the suitability of any specific application, as well as the capacity of the supportive structure to receive the shown configuration and associated reaction loads. Any changes to components and / or design may alter performance and must be evaluated by the customer or responsible Engineer.

If the Bill of Materials contains Hilti HST, HST2 or HST3 anchors, the Hilti PROFIS Installation calculation utilises the published HST, HST2 or HST 3 load values from current Anchor Fastening

Technology Manual (FTM) for min. 2.25 x hef thick C20 / 25 cracked concrete with no spacing or edge distance effect.

Resistance values for M10, M12 and M16 HST, HST2 and HST3 anchors are based on effective embedment depth hef (listed in current version of FTM). All other Hilti anchors used in Hilti PROFIS Installation have similar logic. The customer's respectively responsible Engineer must verify these anchors and confirm that assumptions are suitable for their specific application.