

Service Training Program 2024





Introduction

For over 50 years the Hamilton name has been associated worldwide with uncompromising quality in precision fluid measuring products.

Because of the dedicated nature of the products we supply, it is important to us that your Field Service Engineers have the opportunity to become fully conversant with the operation and maintenance of our products. Our service training courses cater to the needs of Service and Support Engineers.

All our courses have been specifically developed to cover the requirements and needs of our diverse customer base. They follow an established standard format which is suitable for our broad client base. They can also be tailor-made to meet the special needs of a specific customer. Theoretical knowledge is combined with practical application to give a comprehensive understanding of course content to the trainee. All participants receive a certificate from Hamilton Bonaduz upon completion of a course, and, while most of our trainings take place here in picturesque Bonaduz, we can arrange for certain courses to take place on-site in your company.



Registration for External Participants*

*non-HAMILTON employees

You can register for our courses using the enclosed registration form via e-mail. The deadline for registration is three weeks before the training course starts. Please Note: For Service Trainings 2023 the new form must be filled out. For legal reasons we can no longer accept the old form. You can find the new form in the e-mail in which this agenda was attached. Please sign the form and scan, as we cannot accept digital signatures.

Registration for HAMILTON Employees

Hamilton employees have to register for service training directly via Workday.

Please use the following link to find instructions on how to register:

<https://mydesk.hamilton.ch/knowledge/hr/SitePages/Manuals.aspx>

Please note: Reservations via the registration form will no longer be accepted.



SCHEDULE 2024

	Start date	End date	Code
ML STAR	13th February	20st February	MLSTAR#1_24
	3rd April	10th April	MLSTAR#2_24
	22nd May	29th May	MLSTAR#3_24
	1st October	8th October	MLSTAR#4_24
	26th November	3rd December	MLSTAR#5_24
STARv & VANTAGE Pipettor	27th February	1st March	STARv&VAN#1_24
	18th June	21st June	STARv&VAN#2_24
	27th August	30st August	STARv&VAN#3_24
	29th October	1st November	STARv&VAN#4_24
VANTAGE Log&TG	4th March	6th March	LOG&TG#1_24
	4th November	6th November	LOG&TG#2_24
NIMBUS	19th March	22nd March	Nimbus#1_24
	2nd July	5th July	Nimbus#2_24
	19th November	22nd November	Nimbus#3_24
HMotion	26th March	27th March	HMotion#1_24
	26th September	27th September	HMotion#2_24
easyPunch	22nd October	24th October	EasyPunch#1_24
Advanced Service Training	14th May	17th May	Advanced#1_24
	15th October	18th October	Advanced#2_24
ML Prep	7th March	8th March	MLPrep#1_24
	7th May	8th May	MLPrep#2_24
	9th December	10th December	MLPrep#3_24
STARv & VANTAGE Pipettor Refresh	17th April	19th April	Refresh#1_24
	11rd December	13th December	Refresh#2_24
AutoLys (incl. SBS Centrifuge)	upon request		
MagPip "Champions" Training	upon request		
Compact Instrument (Sparkle)	upon request		
GxP Documentation	upon request		
Stage Program	upon request		

Important notice

The content of this training program is subject to change without notice. Every effort has been made to ensure the accuracy of this document's content. Should any errors be detected, HAMILTON Bonaduz AG would greatly appreciate being informed of them. The above notwithstanding, HAMILTON Bonaduz AG can assume no responsibility for any errors in this document, or for changes to training dates or the consequences thereof.

Requirements

Different courses have different requirements. Therefore, please check the Requirements Section in each course description.

As a general rule, we require all participants to have:

- Electronics and/or Electro-Mechanical background
- Basic Medical Laboratory knowledge
- Basic Computer Skills
- PC Software knowledge including:
 - Operating System Windows XP and higher
 - Familiar with Windows Programs (Word, Excel, etc.)
 - Internet Explorer
- Good English Reading and Speaking Skills

Additional Course Dates

Course will be offered on a request basis. Individual requests will be kept on file and the course will be offered as soon as a minimum of 3 to 6 participants (depending on the course) is reached.

Course Hours

Training courses are conducted in general from 08:15 AM to 05:00 PM. Trainees will be informed of any changes from the standard time.

Number of participants

Min: 3

Max: Limited to 6

Certificate

Each trainee will be presented with a certificate upon completion of a course. Because of Hamilton's commitment to recognized international standards these can be used as official training certificates.

Course Materials

Each participant will receive relevant course materials during the training course.

Lunch

Lunch is provided at the Hamilton Bonaduz AG restaurant and is included in the course price.

Accommodations

Hamilton Bonaduz AG will only make hotel reservations for training participants in exceptional cases. Information on recommended hotels and their contact details can be found at the end of the training agenda. Traveling and accommodation expenses are the responsibility of the trainee or the trainee's company.

Course Fees

See the individual courses for the respective fees. The fees include lunch at the Hamilton Bonaduz AG restaurant. One group dinner at a local restaurant (except for 1- and 2-day courses) is sponsored by Hamilton Technical Support. Course fees are excluding taxes.

1 day :	CHF 1'980 per participant	For an additional half day, CHF 440 is charged to the fee of the whole days. For Example: 2 1/2 days will be: CHF 2'640 + CHF 440 = CHF 3'080 Hamilton distributors benefit from a 30% discount on the above prices. Quotes are provided on request only, the invoice will be sent automatically after the training has taken place
2 days :	CHF 2'640 per participant	
3 days :	CHF 3'300 per participant	
4 days :	CHF 3'960 per participant	
5 days :	CHF 4'620 per participant	
6 days :	CHF 5'280 per participant	

Cancellation

In case of a short-term cancellation (less than 1 week before trainings starts) a cancellation fee of 50% of the original cost will be charged.

In case of no cancellation a penalty fee of 100% of the original training cost will be charged.

Individual Workshops

In addition to standard training courses, Hamilton Bonaduz can provide cost-effective training workshops tailor-made to meet the specific needs of the individual. The content and duration of these workshops is negotiated in advance with the client to ensure that particular problems or procedures are addressed.

General conditions:

- You send us the requested training dates at least six weeks in advance
- You let us know your specific training requirements
- We organize the course and the appropriate infrastructure
- You receive training materials, lunch at our restaurant & one external group dinner
- Course fees for the participants apply as above

On-Site Trainings

Hamilton Bonaduz AG can send instructors to train your employees on-site, i.e. at your company. Your company takes care of providing the necessary infrastructure and instruments to ensure that the course runs smoothly and efficiently. Your company must pay for travel and accommodation as well as meals for the instructor and the trainees. Hamilton will provide qualified training instructors and technical know-how.

General conditions:

- You must inform us of the requested training date at least six weeks in advance
- Your company co-ordinates the training site, presentation equipment and participants
- Your company provides the instruments required
- You will receive one copy of the training materials from Hamilton and take responsibility for making copies
- Course fees for the participants apply as above

ML STAR Standard Service Training



This course covers servicing of the HAMILTON Microlab STARLine Instruments with Pipetting Channels, iSWAP, 96-Probe Heads and Autoload. Typically, Microlab STARlet and STAR Instruments. To reinforce the theoretical portion of the course, practical examples and demonstrations are provided. Instrument servicing is given special emphasis.

Course Content

- ▶ Introduction
- ▶ User Software (short overview)
- ▶ Instrument Installation
- ▶ Service Software and HamTus
- ▶ Adjustments
- ▶ Replacement of Hardware Components
- ▶ Maintenance
- ▶ Verification
- ▶ Troubleshooting

Target group

Service Engineers who need to support Microlab STARLine Instruments with a standard configuration.

Requirements

- ▶ Electronic knowledge & mechanical skills
- ▶ PC knowledge based on Win XP and higher
- ▶ English language

Duration: 5.5 days
Course fee: CHF 5'060 per participant
Certificate: Proficiency Certificate

easyPunch



This course covers servicing of the HAMILTON easyPunch Instruments with Pipetting Channels, Card-/ Plate Gripper, Punch, Module and Autoload. The focus of the training is on the easyPunch specific modules and not on the standard ML STAR modules.

To reinforce the theoretical portion of the course, practical examples and demonstrations are provided. Instrument servicing is given special emphasis.

Course Content

- ▶ Introduction
- ▶ Configurations Overview
- ▶ Instrument Installation
- ▶ Service Software
- ▶ Adjustments
- ▶ Replacement of Hardware Components
- ▶ Maintenance
- ▶ Verification
- ▶ Introduction into easyPunch Imaging and Application
- ▶ Troubleshooting

Target group

Service Engineers who need to service easyPunch Instruments.

Requirements

- ▶ ML STAR Standard Service Training
- ▶ Electronic knowledge and mechanical skills
- ▶ PC knowledge based on XP and Higher
- ▶ English language

Duration: 2.5 days
Course fee: CHF 3'080 per participant
Certificate: Proficiency Certificate

AutoLys



This course covers servicing of the HAMILTON AutoLys Instruments with Pipetting Channels, Autoload, AutoLys Tool Channels, HHS II, 2D Barcode Imaging Module and integrated on-deck Centrifuge. The focus of the training is on the AutoLys specific modules and not on the standard ML STAR modules.

To reinforce the theoretical portion of the course, practical examples and demonstrations are provided. Instrument servicing is given special emphasis.

Course Content

- ▶ Introduction
- ▶ Configurations Overview
- ▶ Instrument Installation
- ▶ Service Software
- ▶ Adjustments
- ▶ Replacement of Hardware Components
- ▶ Maintenance
- ▶ Verification
- ▶ Troubleshooting

Target group

Service Engineers who need to service AutoLys Instruments.

Requirements

- ▶ ML STAR Standard Service Training
- ▶ Electronic knowledge and mechanical skills
- ▶ PC knowledge based on XP and Higher
- ▶ English language

Duration: 2 days
Course fee: CHF 2'640 per participant
Certificate: Proficiency Certificate

H-Motion



This course covers servicing of the H-Motion. To reinforce the theoretical portion of the course, practical examples and demonstrations are provided. Instrument servicing is given special emphasis.

Course Content

- ▶ Introduction
- ▶ Software and Firmware Overview
- ▶ Installation/Service
- ▶ Covers Removal
- ▶ Replacement of Hardware Components
- ▶ Electronics Overview
- ▶ Maintenance
- ▶ Troubleshooting

Target group

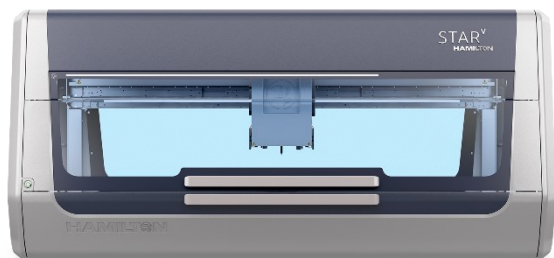
Service Engineers who need to support H-Motion Instruments.

Requirements

- ▶ Electronic knowledge & mechanical skills
- ▶ PC knowledge based on Win XP and higher
- ▶ English language

Duration: 1.5 days
Course fee: CHF 2'420 per participant
Certificate: Proficiency Certificate

VANTAGE Pipettor & STARv Service Training



This course covers servicing of the HAMILTON VANTAGE Pipettor Module.

To reinforce the theoretical portion of the course, practical examples and demonstrations are provided. Instrument servicing is given special emphasis.

Course Content

- ▶ Introduction
- ▶ User Software Introduction
- ▶ Instrument Installation
- ▶ Service Software
- ▶ Adjustments
- ▶ Replacement of Hardware Components
- ▶ Maintenance
- ▶ Verification
- ▶ Troubleshooting

Target group

Service Engineers who need to support VANTAGE Instruments with a standard configuration.

Requirements

- ▶ ML STAR Standard Service Training
- ▶ Electronic knowledge and mechanical skills
- ▶ PC knowledge based on XP or Higher
- ▶ English language

Duration: 4 days
Course fee: CHF 3'960 per participant
Certificate: Proficiency Certificate

VANTAGE Logistics/Track Gripper



This course covers servicing of the HAMILTON VANTAGE Logistics and Track Gripper Modules.

To reinforce the theoretical portion of the course, practical examples and demonstrations are provided. Instrument servicing is given special emphasis.

Course Content

- ▶ Introduction
- ▶ User Software
- ▶ Instrument Installation
- ▶ Service Software
- ▶ Adjustments
- ▶ Replacement of Hardware Components
- ▶ Maintenance
- ▶ Troubleshooting

Target group

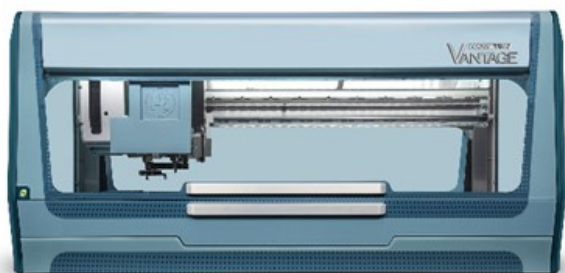
Service Engineers who need to support VANTAGE Instruments with a standard configuration.

Requirements

- ▶ ML STAR Standard Service Training
- ▶ VANTAGE Pipettor Service Training
- ▶ Electronic knowledge and mechanical skills
- ▶ PC knowledge based on XP or Higher
- ▶ English language

Duration: 3 days
Course fee: CHF 3'300 per participant
Certificate: Proficiency Certificate

VANTAGE REFRESH



Addressed to FSE who would like to refresh and extend their knowledge of HAMILTON VANTAGE, Logistics and Track Gripper Modules.

Course Content

- ▶ Mag Pip Arm and Channel
- ▶ Upgrades (e.g. Arm)
- ▶ Instinct V specifically for FSE
- ▶ Vantage Trouble Shooting
- ▶ Adjustments (Track Gripper and Pipettor)
- ▶ Replacement of Hardware Components
- ▶ Verification
- ▶ Module integration
- ▶ Q&A

Target group

Service Engineers who have had Vantage and Track Gripper service Training and have some field experience.

Requirements

- ▶ LOG & TG Service Training
- ▶ Electronic knowledge and mechanical skills
- ▶ PC knowledge based on XP and higher
- ▶ English language

Duration: 3 days
Course fee: CHF 3'300 per participant
Certificate: Certificate of attendance

NIMBUS



This course covers servicing of the HAMILTON NIMBUS Instruments, including Nimbus Independent Channels, Nimbus 96 and Nimbus HD. To reinforce the theoretical portion of the course, practical examples and demonstrations are provided. Instrument servicing is given special emphasis.

Course Content

- ▶ Introduction
- ▶ User Software Introduction
- ▶ Instrument Installation
- ▶ Service Software
- ▶ Adjustments
- ▶ Replacement of Hardware Components
- ▶ Maintenance
- ▶ Verification
- ▶ Troubleshooting

Target group

Service Engineers who need to support NIMBUS Instruments with a standard configuration.

Requirements

- ▶ Electronic knowledge & mechanical skills
- ▶ PC knowledge based on Win XP and higher
- ▶ English language

Duration: 4 days
Course fee: CHF 3'960 per participant
Certificate: Proficiency Certificate

Microlab Prep



This course covers servicing of the HAMILTON Microlab Prep Instrument.

To reinforce the theoretical portion of the course, practical examples and demonstrations are provided. Instrument servicing is given special emphasis.

Course Content

- ▶ Introduction
- ▶ User Software Introduction
- ▶ Instrument Installation
- ▶ Electronics Overview
- ▶ Replacement of Hardware Components
- ▶ Maintenance
- ▶ Verification
- ▶ Troubleshooting

Target group

Service Engineers who need to support Microlab Prep Instruments.

Requirements

- ▶ Electronic knowledge & mechanical skills
- ▶ PC knowledge based on Win10
- ▶ English language

Duration: 2 days
Course fee: CHF 2'640 per participant
Certificate: Proficiency Certificate

ADVANCED SERVICE TRAINING



This course covers different topics around Hamilton robots and 3rd party devices.

Course Content

- ▶ Introduction
- ▶ ML STAR advanced trouble shooting
- ▶ Macros and Firmware Commands
- ▶ MPE2
- ▶ APH
- ▶ HHC / CCM
- ▶ UV Kit Next Generation

Subjects to change, depending on current developments:

- ▶ HHS 3G
- ▶ MFX 2.0 active Modules
- ▶ Module integration (STAR & Nimbus)
- ▶ Cases from the field/participants
- ▶ Q&A

Target group

Experienced Service Engineers, which should take an expert role within the country.

Requirements

- ▶ ML STAR Standard Service Training
- ▶ VANTAGE Pipettor Service Training
- ▶ Electronic knowledge and mechanical skills
- ▶ PC knowledge based on XP and Higher
- ▶ English language

Duration: 3.5 days
Course fee: CHF 3'740 per participant
Certificate: Certificate of attendance

Compact Instrument (Sparkle)



This course covers servicing of the HAMILTON Compact Instruments.

To reinforce the theoretical portion of the course, practical examples and demonstrations are provided. Instrument servicing is given special emphasis.

Course Content

- ▶ Introduction
- ▶ User Software
- ▶ Instrument Installation
- ▶ Service Software
- ▶ Mechanical Adjustments
- ▶ Replacement of Hardware Components
- ▶ Troubleshooting

Target group

Service Engineers who need to support Compact Instruments with a standard configuration.

Requirements

- ▶ Electronic knowledge & mechanical skills
- ▶ PC knowledge based on Win XP and higher
- ▶ English language

Duration: 4 days
Course fee: CHF 3'960 per participant
Certificate: Proficiency Certificate

Stage Program – On-the-job training



This course gives inexperienced Distributors the chance to have their field staff additionally trained by Switzerland's Field Service Engineers.

During a maximum of three weeks, the participant has the chance to visit Hamilton Bonaduz costumers together with our Field Service Team. The participant will be able to apply what he/she has learned from the standard training 1 to 1 and will learn to install, maintain, and repair the systems in the field.

A maximum of three days at Hamilton Bonaduz after the training on the job for training on specific modules and questions are possible if required.

Target group

Service Engineers who have no experience with Hamilton Robotics products.

Requirements

- ▶ Distributor must have no experience with Hamilton Robotics products or FSE has no co-workers to work with
- ▶ ML STAR Standard Service Training

Contact itechsupport@hamilton.ch to discuss details (e.g. dates, price, content, etc.)

Duration: Maximum of three weeks on-the-job training throughout Switzerland
Additional maximum three days at Hamilton Bonaduz for specific topics
Course fee: Upon request
Certificate: Letter of attendance

MagPip “Champions” Training



This course covers servicing of the HAMILTON MagPip technology.

Course Content

- ▶ Introduction
- ▶ MagPip Installation
- ▶ Mechanical Adjustments
- ▶ Replacement of Hardware Components
- ▶ Field Verification & Drop Watch light
- ▶ Troubleshooting

Target group

Service engineers who will support instruments with MagPip installed.

Currently, only 1-2 FSEs per region are allowed to participate in this training. Registration is only possible via email to iTechSupport@hamilton.ch. Registration may be refused if the requirements are not fulfilled or if 2 FSEs have already been trained for the region.

Requirements

- ▶ ML STAR Standard Service Training
- ▶ VANTAGE Pipettor Service Training
- ▶ At least one year of field experience with Vantage
- ▶ Electronic knowledge and mechanical skills
- ▶ PC knowledge based on XP and Higher
- ▶ English language

Duration: 2 days
Course fee: CHF 2'640 per participant
Certificate: None

Leisure-time Activities around Bonaduz

www.bonaduz.ch (German language)

Sightseeing in Chur and the Domleschg Area

If you arrive at Hamilton on the weekend, you'll have enough time to discover our surroundings in the beautiful canton of Grisons Graubünden. You might even be interested in spending your evenings in Chur, the city nearest to Hamilton Bonaduz AG.

First settled 13,000 years ago, Chur is the oldest city in Switzerland and 2000 years ago the one-time capital of the Roman province of Rhaetia Prima. The old town is famous for its historic buildings and monuments, its 800-year-old cathedral, Roman excavations and several museums are well worth visiting.

Visitors wishing to discover the town independently should follow the routes marked with red signposts. The Domleschg area is dotted with castles and fortresses, including the privately owned Rietberg Castle, famous for its connection with Jürg Jenatsch, a local freedom fighter who played a decisive role in the colorful history of the canton of Grisons.

Chur Tourism

Additional Information (In German, English and French)

Bahnhofplatz 3, 7000 Chur, Switzerland - Tel: (081) 252 18 18 - Fax: (081) 252 90 76

E-Mail: info@churtourismus.ch Internet: <http://www.churtourismus.ch/>

The tourist office can provide you with info about alpine and cross-country skiing, ice skating, hockey matches, sledding, rafting, canoeing, fishing, swimming, golfing, tennis, squash, ballooning, cycling, paragliding, mountain-biking, horseback riding, hiking and much more.

Excursions

- Bonaduz-Viamala-Zillis-Bonaduz (by car) ½ day
- Bonaduz-Thusis-Davos-Thusis-Bonaduz 1 day
- Rhäzüns-Feldis-Scheid-Rothenbrunnen-Bonaduz/Chur (by cable car, foot or by train) 3h
- Chur-Lenzerheide-Chur (by bus or car or on foot around Lenzerheide Lake) 4h
- Chur-Arosa-Chur (by train or car - 368 turns in the road!) ½ day
- The Bernina Express (train) Chur-Tirano-Chur 1 day
- The Glacier Express (train) Chur-Zermatt-Chur 2 days

Entertainment and Leisure

Chur has a great selection of things to do and places to go choose from shopping, museums, cinemas, bars, and nightclubs.

Wining and Dining

There are plenty of restaurants ranging from fast food and good local fare in cozy pubs and inns to cuisine du marché in more elegant surroundings.

The following are recommended:

Hotel Alte Post, Bonaduz

Romantik Hotel Stern, Chur

Pasteria Otello, Chur

Zunftthaus zur Rebleuten, Chur

Zum alten Zollhaus, Chur

Hotel Fidazerhof, Flims-Fidaz

Ustria Parlatsch, Trin

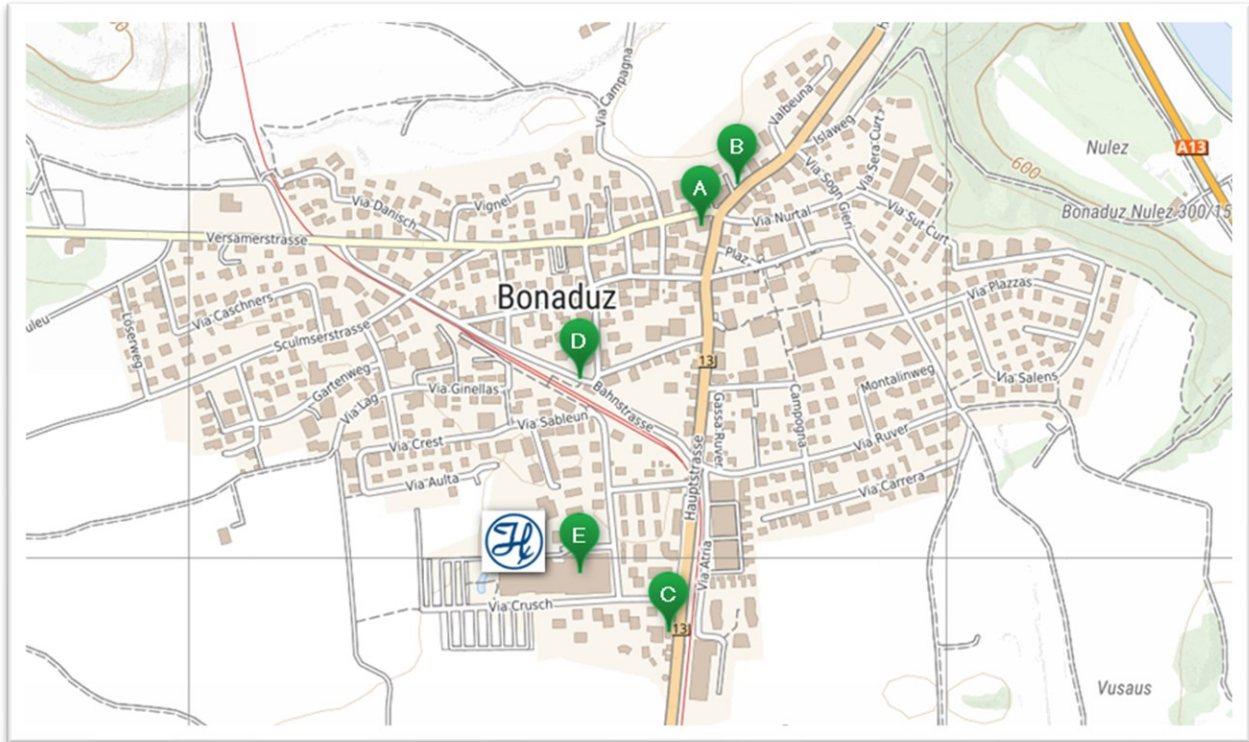
Pensiun Casa Crusch, Ladir

Forellenstube, Lenzerheide

Tschugga, Parpan

www.map.search.ch/chur (In German, English and French)

MAP OF BONADUZ



A) Hotel Alte Post

Versamerstrasse 1, 7402 Bonaduz, Switzerland

Phone: +41 (081) 553 00 00

www.altepost.swiss

Negotiated pricing with Hamilton Bonaduz AG

B) Bus Station “Alte Post”

C) Bus Station “Crusch”

D) Railway Station

E) HAMILTON Bonaduz AG



Via Crusch 8, 7402 Bonaduz, Switzerland

Phone: +41 (0) 58 610 10 10

www.hamiltoncompany.com

Other Hotels (not on the Map):

Hotel The Hide

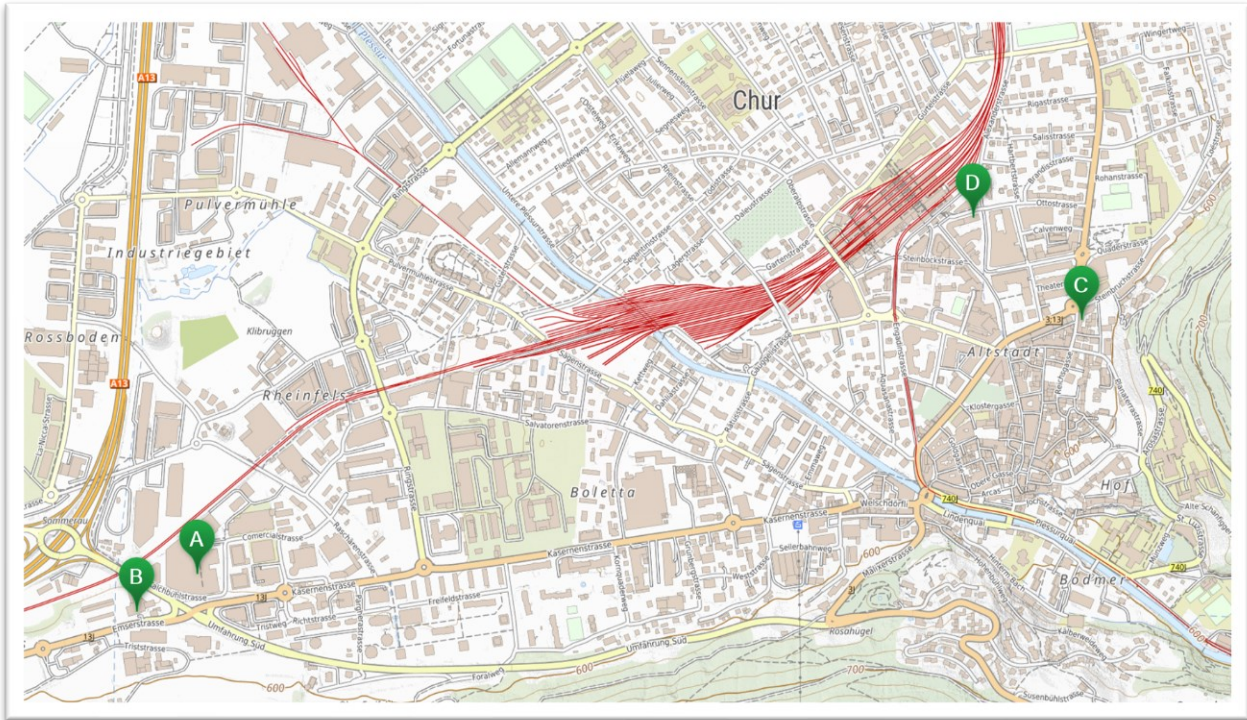
Via Nova 80, 7018 Flims, Switzerland

Phone: +41 (081) 911 15 11

www.thehidehotelflims.com

Negotiated pricing with Hamilton Bonaduz AG

MAP OF CHUR



A) Mercure Chur City West

Comercialstrasse 32, 7000 Chur, Switzerland

Phone: +41 (081) 256 55 00

www.all.accor.com/hotel/B7Z9/index.de.shtml

Negotiated pricing with Hamilton Bonaduz AG

B) Hotel Sommerau

Emserstrasse 4, 7000 Chur, Switzerland

Phone: +41 (081) 258 61 61 - Fax: +41 (081) 258 61 62

www.sommerau.ch

Negotiated pricing with Hamilton Bonaduz AG

C) Hotel Stern Chur

Reichsgasse 11, 7000 Chur, Switzerland

Phone: +41 (081) 258 57 57 - Fax: +41 (081) 258 57 58

www.stern-chur.ch

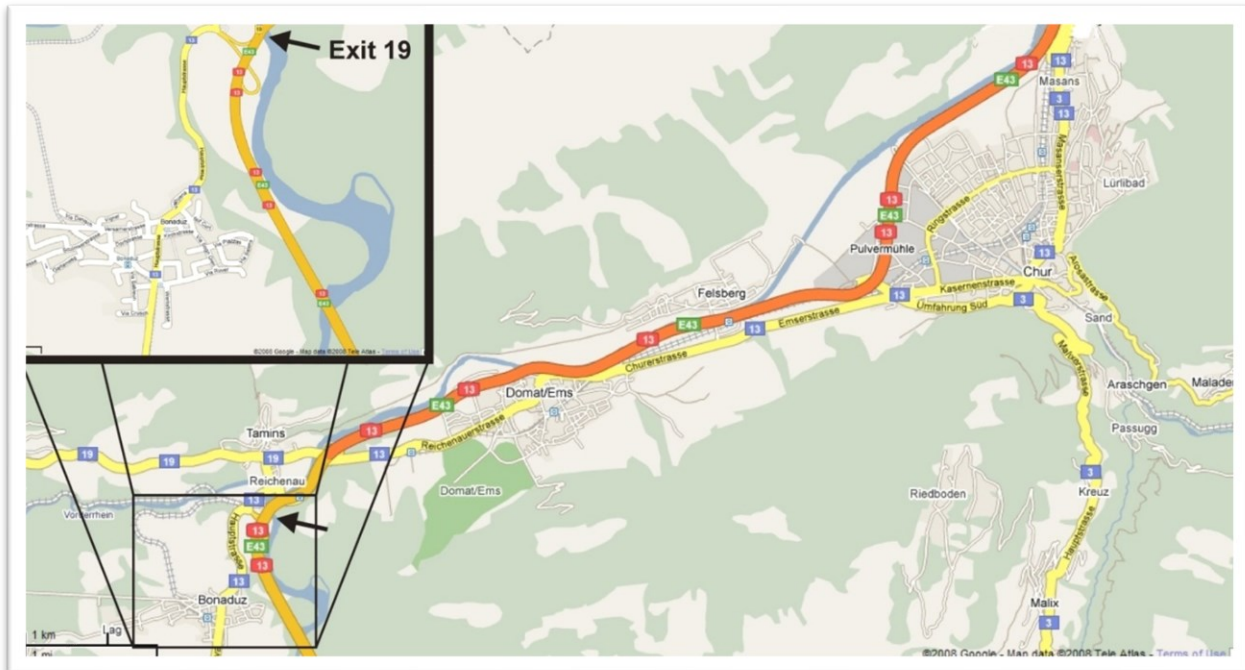
D) Swiss Quality Hotel ABC

Ottostrasse 8, 7000 Chur, Switzerland

Phone: +41 (081) 252 60 33 - Fax: +41 (081) 252 55 24

www.hotelabc.ch

DIRECTIONS FROM CHUR TO BONADUZ



Postal Address and Training Location

HAMILTON Bonaduz AG

Via Crusch 8

CH-7402 Bonaduz

Switzerland

Web: www.hamilton.ch

Contact

Robotics - Technical Support Bonaduz

Tel: +41 58 610 07 20

Email: iTechSupport@hamilton.ch

