



Phases	Planning	Establishment / Assembly	Commissioning	Operation
<b>Services</b>				
Consultancy	✓			✓
Training		✓	✓	✓
Realisation	✓	✓	✓	
Support	✓	✓	✓	✓
Service/Maintenance				✓

## Here you will find:

- Customised Application Programs
- Seminars and Training Offers
- Maintenance Contracts
- Order Guide for Product Manuals

## HiTec Zang - Your competent Project Partner !

The company HiTec Zang GmbH, in addition to being a system retailer supplying systems and components, also offers a wide range of services. We are able to support you with our know-how gained in 30 years of project work for the process engineering industry covering all project phases:

Phases / Services	Planning	Establishment / Assembly	Commissioning	Operation
Consultancy	✓			✓
Training		✓	✓	✓
Realisation	✓	✓	✓	
Support	✓	✓	✓	✓
Service/ Maintenance				✓

Our Service Portfolio in detail:

- PMC technical consultancy,
- Procedural consultancy,
- Plant design for laboratory and
- Mini-plants,
- PMC, planning of basic version, realisation
- and planning of application -oriented details,
- Component selection for special
- Problem solutions,
- PMC, application establishment,
- Control-oriented support,
- Support for Commissioning,
- Fault diagnosis and analysis,
- Device coupling,
- Sensor calibration,
- Seminars and training,
- Remote maintenance,
- Order development.

Take advantage of our widespread know-how for your projects:

- Research Process Control Systems,
- Automated Laboratory Reactor Systems,
- Mini- und Bench-Plant-Technology,
- NAMUR-basis Operations,
- Instrumenting, Sensors,
- Spectrometry,
- High-Precision Temperature Measurement,
- Reaction Calorimetry,
- Weighing and Dosing Technology,
- Measuring and Control Technology,
- Process Control Technology, PLC Technology,
- LIMS-Systems,
- Device Interfaces,
- CAN-Bus, Profi-Bus-DP,
- Remote Data Transmission, Remote Maintenance,
- Remote Alarming via Phone, E-Mail or SMS,
- Computer Networks
- Quality Assurance Systems.

Our experienced project engineers and technicians will support you all the way until your project is ideally realised. Whether you merely require consultancy, or you wish to couple an analysis device with a special protocol with a control system, or you require a complete ready-to-use plant, whatever it may be, you can count on our support. Just talk to us!

## Customised Application Programs

HiTec Zang establishes application programs according to customer specifications. If required, we will gladly establish a duty record book

containing the product requirement specifications in the forefront. The following shows an example based on the HiBuilder.

### Collection and Administration of Stirrer-related Data

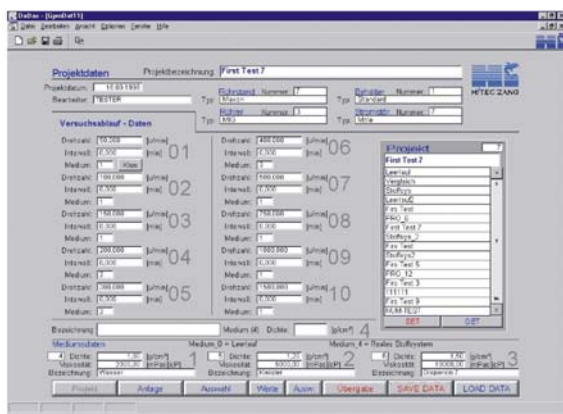
GyroDat is a program package for the projecting and realisation of tests applying a stirrer. The work environment includes the process control of the test progression, the collection, evaluation, the presentation, and archiving of the data.

GyroDat consists of two modules. The administration, projecting, and evaluation were realised in the HiTec Zang **HiBuilder**, the process control programmed in the HiTec Zang - **Labvision** and **HiText**.

#### Administration of the Project Data

The user interface/work station of the GyroDat is designed for the graphic evaluation and simple comparison of various test data.

Up to ten project steps can be parameterised in the project data window. A change of media during the test is taken into account. Data storage is conducted automatically.



#### Systematic Examinations:

- Influence of the Stirrer Design
- Influence of Flow Interrupters
- Influence of Vessel Design
- Properties of Media

#### The Sequence of Operation

Stirrer type, vessel type, flow interrupters, and revolutions are specified by the user and transferred by GyroDat to Labvision for automatic execution.

The data collected in the course of the stirring test is transferred by Labvision to GyroDat for evaluation.

GyroDat calculates the process characteristics and establishes the result diagrams.

Calculated Data:

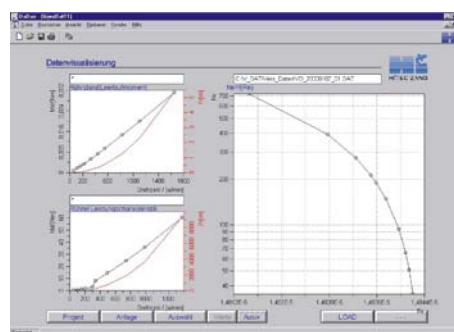
- $Re = f(Ne)$
- $Md = f(n)$
- Idle time data of the stirrer drive

#### Administrated are:

- 200 Project Template
- 100 Stirrer Stands
- 100 Stirrer
- 100 Container
- 100 Flow Interruptor
- 50 Reference Media

#### Presentation of the Data

A freely designable protocol page (with HiBuilder) containing graphics, values, and comments can be printed out.



Order Code	Description
SA-GYRODAT	Program for the collection and administration of stirrer data

Please also consider our precision measurement stirrer ViscoPakt-rheo, which is ideally suited to conduct stirring tests.

## Seminars and Training

The continuous vocational and advanced training for personnel is the most important investment for the future of your enterprise. Profound knowledge is an essential prerequisite for the successful realisation of your products. Our seminar training portfolio in regard to the selection of the topics and content is the result of our many years of practical experience in deploying laboratory automation and mini-plant technology.

Due to the fact that we are aware that learning something is accomplished the fastest by actually doing something yourself in practice, our training mainly consists of practical training at our systems.

The participants mainly conduct clearly set tasks independently.

The training is conducted on our premises and, in the ideal case, is rounded off by support during the commissioning at the client plant.

### Your advantages:

- Reduction of the Project Preparation Period
- Reduction of the Project Running Period
- Better Results
- Optimal Utilisation of the Equipment
- Staff Satisfaction



### Training Modules

the training program is principally aligned to your individual requirements. The training schedule is arranged out of the following modules. A user introduction approximately requires ½ to 1 day, a complete training program between 5 and 8 days, depending on the existent knowledge of the participant.

Up to four participants may participate without additional charge. The provision of the equipment for two participants is included in the price. For each of the other two participants, extra equipment is required.

### Level 1: User Training

#### Introduction into the Lab/MSRmanager System

Prerequisites: Windows experience, basic chemical-process-oriented experience.

#### Introduction of the UI Software LabVision

- Configuring and Parameterising
- Multiplexer
- Online-Graphics
- Monitoring and Operating in PLS Images
- Programming

#### User Training at the UI/Work Station of a simulated Plant

- Administration and Starting of the Project
- Configuring and Parameterising
- Monitoring and Operating
- Establishment and Realisation of a recipe with HiBatch
- Discussion, open issues

### Level 2: Project Manager Training

#### Project Establishment in LabVision

Prerequisites: Windows experience, basic knowledge of PMC technology.

#### PMC-Basic Knowledge

- Connection and Parameterisation of Sensors and Actors
- Data Storage in the History Data Base
- Setting up of the Plotters
- Establishment and Dynamisation of PLS-Images
- Linking of Signals
- Process Report
- Message Report
- Data Export
- Routing of Message Events
- Visualisation of Message Events
- Project Establishment with Project Modules

The following topics can be combined to form an individually aligned training program:

- HiText, Control and Online Evaluation
- Programming of Recipe Element Programs
- Setting Up and Parameterisation of Controllers
- Programming in IEC 61131 I
- System Administration
- Advanced Training
- Applied Control Technology

Order Code	Description
DS-SCHULTAS	One daily rate, content according to prior agreement
DS-SCHULQUIP	Provision of the training equipment, one work station, maximum two participants per day

## Maintenance Contracts

### Software-Upgrade-Contract

An Update is an improved program version with unmodified functional range, After the purchase of any of our software, the customer, upon request, will receive updates free of charge for the duration of one year.

An upgrade is a further developed version which usually contains an extended functional range. Without a software upgrade contract (after expiry of the first year), an upgrade for any consecutive year costs 15 % of the catalogue price. The upgrade option expires 4 years after the initial purchase, respectively the last update.

Upon request, we will conduct the installation subject to the charge of the according expenditures.

Example: If a software was purchased 2 ½ years ago (no existing software upgrade contract) and the catalogue price is stated as, e.g., 2800€, the price for the update amounts to 2 x 15% (due to the fact that the first year is free) of 2800€, therefore 840€.

With a Software-Upgrade-Contract, you are entitled to the respectively most recent version. The annual costs amount to 15 % of the current catalogue price.

Order Code	Description
DS-UPGR	Software Upgrade

### Hardware Maintenance Contract

If a Hardware Maintenance Contract is concluded, we will annually check and calibrate your devices and upgrade them to the current state of technology. Faulty parts will be exchanged free of charge either in our works or directly at the location. Only the travelling expenses will be charged. Damage due to external influences is excluded.

Order Code	Description
DS-VHW	Hardware Maintenance Contract

### Support and Remote Maintenance Contract

If a Support Contract is concluded, our Hotline is available for the answering of your queries, when establishing applications or for the quick solution of software problems.

If required, we will conduct remote maintenance. The contract will be aligned to your individual requirements.

Order Code	Description
DS-VSW	Support and Remote Maintenance Contract

## Product Manuals

---

The manuals to our products are usually delivered together with the product on a data carrier. If required, they can also be acquired as a printed paper version.

## Application Software

Order Code	Description
ZH-LABVIS	LabVision Manual
ZH-HIBUILDER	Manual to the evaluation program HiBuilder
ZH-GYRODAT	Manual to the evaluation program GyroDat
ZH-KALDAS	Manual to the evaluation program KalDas
ZH-SOLIDOS	SoliDos Manual
ZH-VISCOPAKT	ViscoPakt Manual
ZH-RAMOS	RAMOS Manual
ZH-LABDOS	LabDos Manual
ZH-GRAVIDOS	GraviDos Manual
ZH-AUTOSAM	AutoSam Manual
ZH-ALFADOS	AlfaDos Manual
ZH-REGLER	Manual Controllers and Controller Parameterisation
ZH-HICON	Manual to the adaptive Controller HiCon