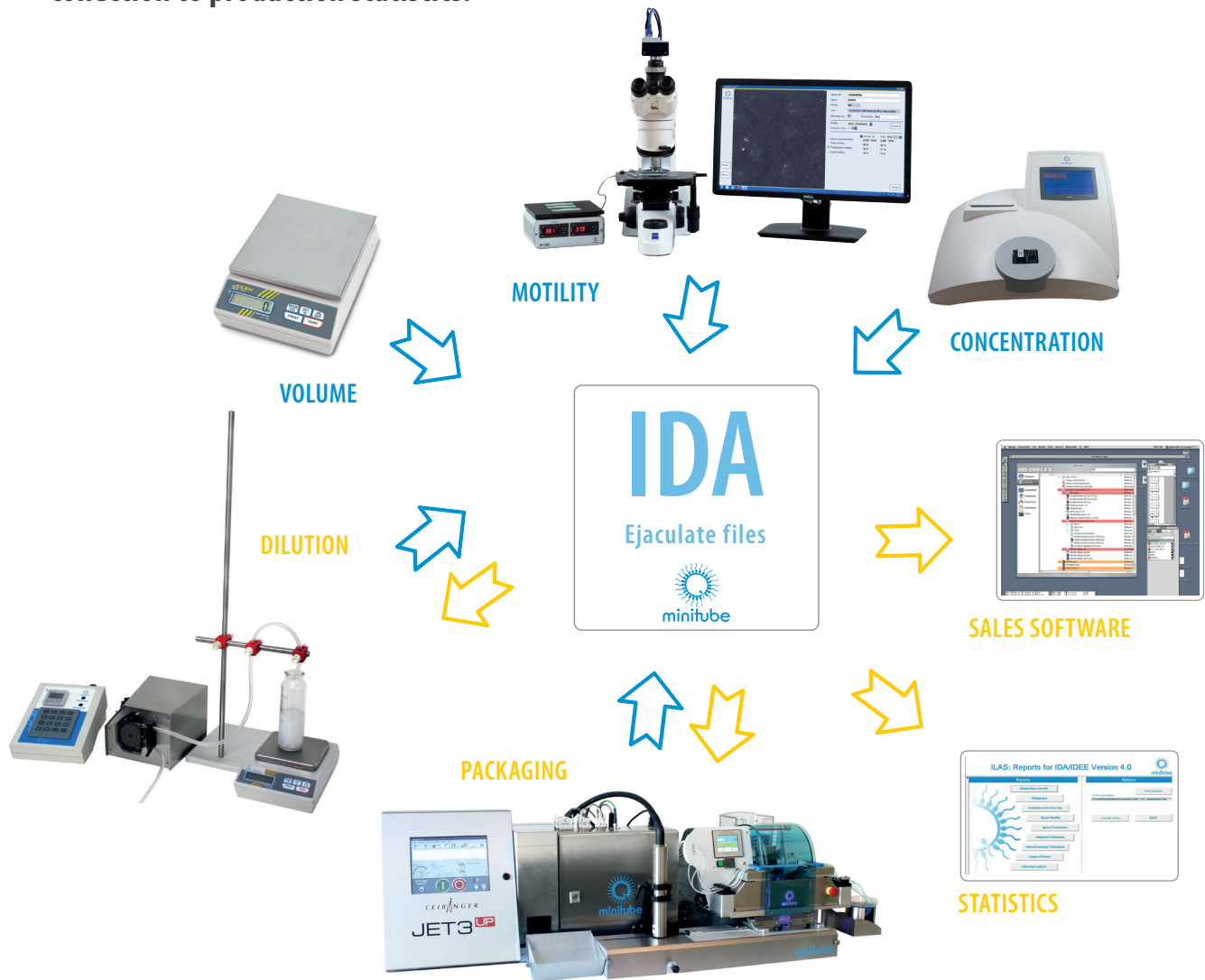




IDA LABORATORY SOFTWARE



The IDA laboratory software integrates all ejaculate data and links all processes from semen collection to production statistics.



Your benefits

- Efficiency, safety and traceability
- IDA introduces a high security level in your lab
- The whole process is standardised and optimised
- Automatic integration of ejaculate parameters through interfaced hardware
- IDA helps to save time and labour
- Automatic data transmission to and from the straw printing and filling system
- Every step is documented and verifiable
- Statistical analysis of all relevant production data
- IDA can easily be connected with other software applications
- IDA is a very user friendly software

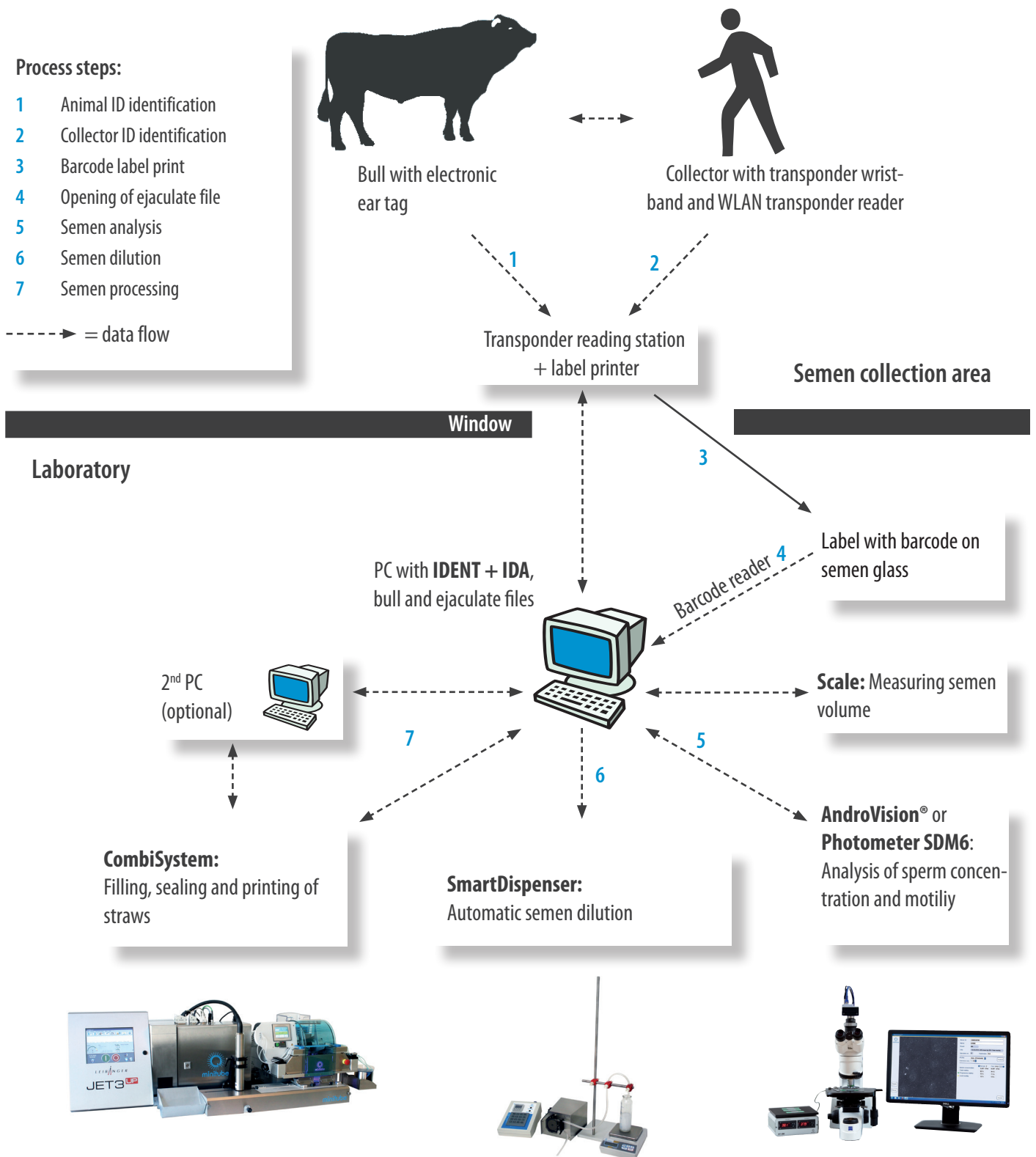


Semen collection and processing with IDENT and IDA

Process steps:

- 1 Animal ID identification
- 2 Collector ID identification
- 3 Barcode label print
- 4 Opening of ejaculate file
- 5 Semen analysis
- 6 Semen dilution
- 7 Semen processing

-----> = data flow



IDENT = software for electronic identification of bulls and semen collectors

IDA = software for processing of bull ejaculates

IDA

The IDA laboratory software is a flexible and modular computer program for accompanying the process of bull semen production. With the application of this program, all semen collection and processing steps are standardised and optimised and a true integrated system is composed. This integrated system consists of a network of computer workstations, semen analysis and production systems and other hardware and facilitates data management from the collection through analysis and production to quality control and statistics. IDA is a Windows based application with an Access database.

Not only is a complete package available. To those who find IDA being too sophisticated, basic software is also available and different modules can be added on at any time. Due to this flexible concept, the IDA system can be selected, combined and adapted individually and specifically for each laboratory. Upgrades of the program are made available periodically and Minitüb provides the technical support to all users worldwide.

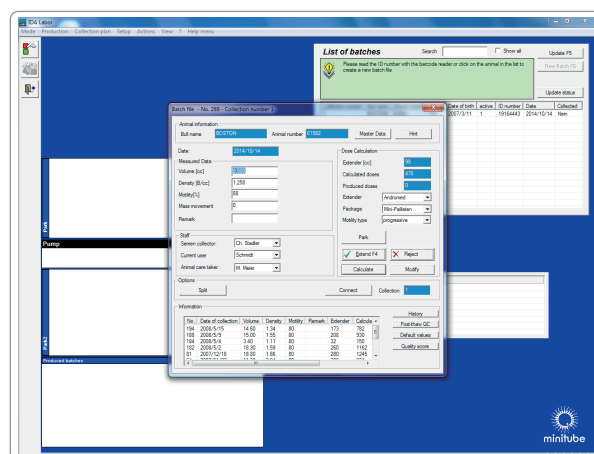
With the complete software package, the entire process is supported and documented by a single system, from the identification of the bull, to ejaculate data recording, through to correct labelling of the semen straws. Specific, customised reports allow a quick overview at any time during and after production at every computer workstation within the network. Production data are transferred to the sales and administration departments in real-time. All data can be transferred to Excel and other applications. IDA will thus greatly improve the speed and efficiency of production and decrease the chances for human errors. It improves the communication within the company and provides real-time data on bull performance to everyone connected to the network program. The Access database makes combinations with other software applications possible.

IDA automates the ejaculate analysis, extender dispensing, semen packaging in straws, as well as the record keeping of thawing controls: with the working mode active, the collection list of the day and the current production figures are shown on the monitor. For each new ejaculate, a batch file is opened. Measurements taken by instruments integrated into the system (e.g. the photometer and weigh-scale) are automatically transferred to the computer and entered into the correct batch data file. Depending on individual software settings, other data of interest can be added manually. Then the extender calculation is performed and the process continues with an automatic semen dilution facility and data transfer to the packaging machine.

Multilingual Software

English, German, Spanish, Russian, Portuguese, Chinese, Italian

REF. : 18500/0000





Basic steps in ejaculate processing with IDA

Barcode scanning

The identification of each ejaculate can be entered manually or by scanning a barcode label. The barcode label may be provided by the Minitüb IDENT software. There are hand-held and standing scanners available. The program opens the new ejaculate data file for this bull and starts ejaculate data management. The new ejaculate file is immediately available at all computer workstations integrated in the system, but analysis data can only be entered at the analysis workstation.



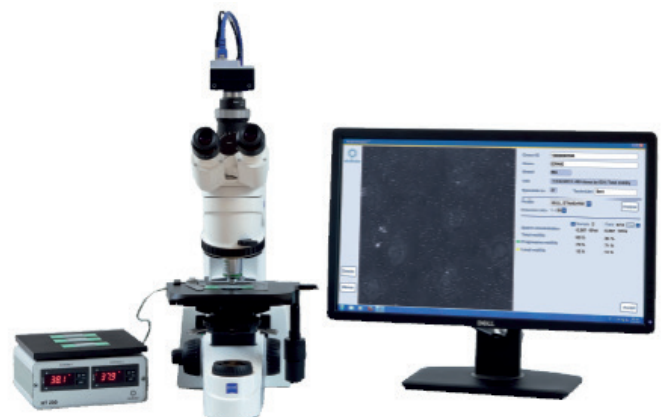
Volume determination

The ejaculate analysis starts with determining the volume. Exact volume determination can be carried out with an electronic balance which is connected to IDA via interface. The volume is entered automatically into the ejaculate file. Alternatively, the volume can also be determined and entered manually.



AndroVision®

Semen motility is determined manually or automatically by the CASA system AndroVision®. In this case, AndroVision® and IDA are interfaced and the motility value enters automatically in its field within the ejaculate record, as well as the concentration value, if AndroVision® is used for chambers to determine cell number. In this way, no manual entry is needed thus avoiding completely any typing errors.





SDM6 photometer

Alternatively or additionally to a CASA system, the photometer SDM6 is interfaced with IDA and the semen concentration value is transferred automatically to the ejaculate data file as it is measured.



SmartDispenser

As soon as the analysis is finished, IDA calculates the number of straws to be processed and the volume of required extender. The program applies user-specific and bull specific formulas for this calculation. With the optional SmartDispenser system connected to IDA, the volume of required extender is automatically transferred to the SmartDispenser and dispensed into the ejaculate. The system can also be set for predilution, 2 or more step dilution and to combining of 2 ejaculates of the same bull. The processing information is immediately available to all workstations integrated in the system, i.e. the lab manager, the barn manager and the collection room display (see description of IDA module collection room display).

Automatic filling, sealing and printing system

Finally, the data are automatically transferred to the automatic filling, sealing and printing system for semen straws. With a barcode scanner connected to the control unit of the processing system, the identity of the ejaculate is read into the system, the pertinent bull ejaculate file is opened and the filling, sealing and printing machine automatically receives the information to be printed on each straw and the number of straws to be processed. IDA can also be interfaced with the printer only.



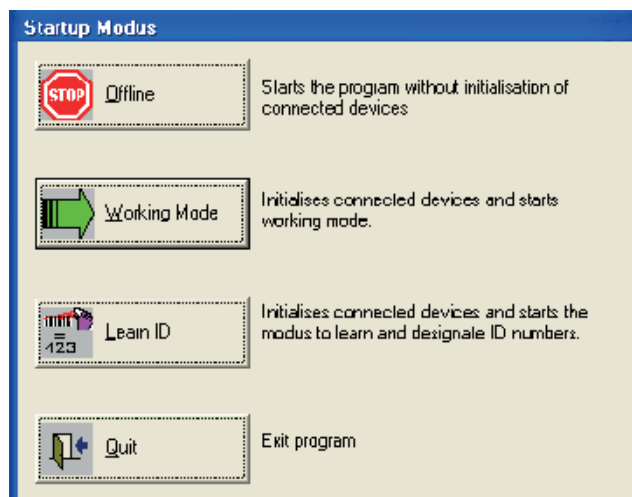
Quality control: The software provides lists for analysis data entry to each ejaculate at different stages.



Software description

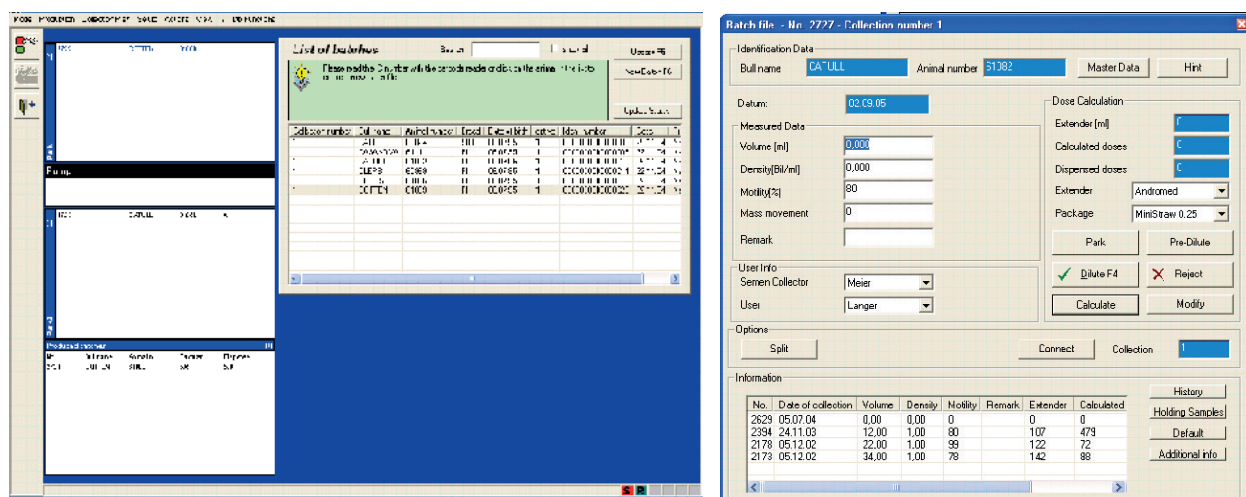
When starting IDA, there are 3 different modes available:

- **Offline:** this mode is used to work in the bull data base, the collection plan and the set-up. The peripheric devices like photometer, scale, processing system are not connected.
- **Working Mode:** this mode is used in ejaculate processing
- **Learn ID:** new electronic ear tags of bulls can be read into the system and added to the bull data file



Working mode: IDA shows the actual status of the processing day: a list of collections to be done according to the collection plan of the day, already produced batches and batches which are at a specific stage of production.

Ejaculate data form: with a new bull ID entered into the system, IDA opens a batch file where all ejaculate data will be collected.



While working with the batch file, data from previous ejaculates of the same bull, records of the control samples, calculation defaults and bull data can be looked up at any time. Newly opened batch files can be parked and processed later in order to work on other ejaculates first.

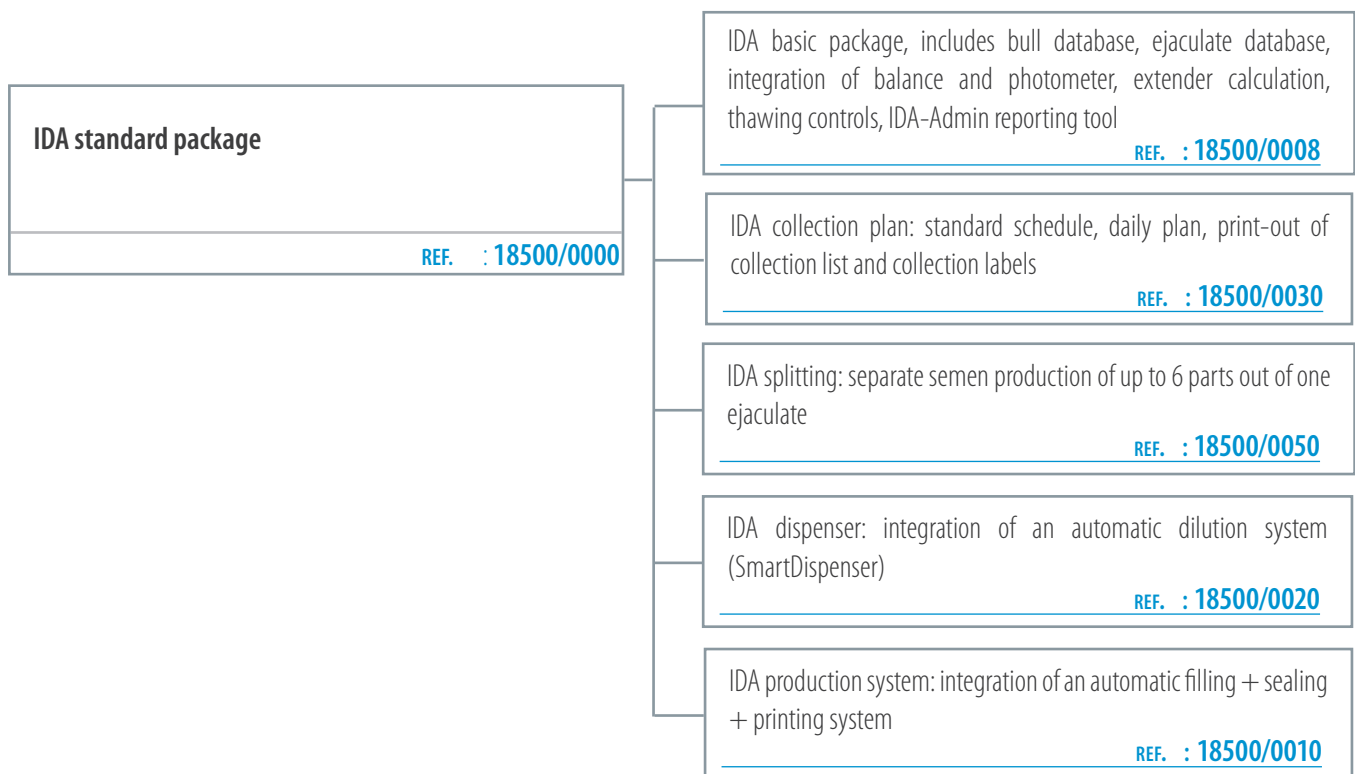
After entering the evaluations data, the user can choose to dilute, reject, park, split or connect the ejaculate to a previous one from the same bull. If the calculated amount of extender and number of semen doses to be produced doesn't match the user's wish, he can modify these data.

IDA-Admin Reporting Tool

The IDA-Admin package forms part of IDA. It provides various reports for controlling the semen production. This function adds a high degree of transparency to the performance of the production, collections, bulls and technicians. The reports have been developed in AI stud practice and cover all common evaluation criteria.

IDA modular system

The standard IDA package has been described. Additionally to this package, Minitüb offers IDENT, the software for electronic identification of bulls, and a module for a display in the collection room. If the standard IDA package contains too many features, we also offer modules apart from each other:

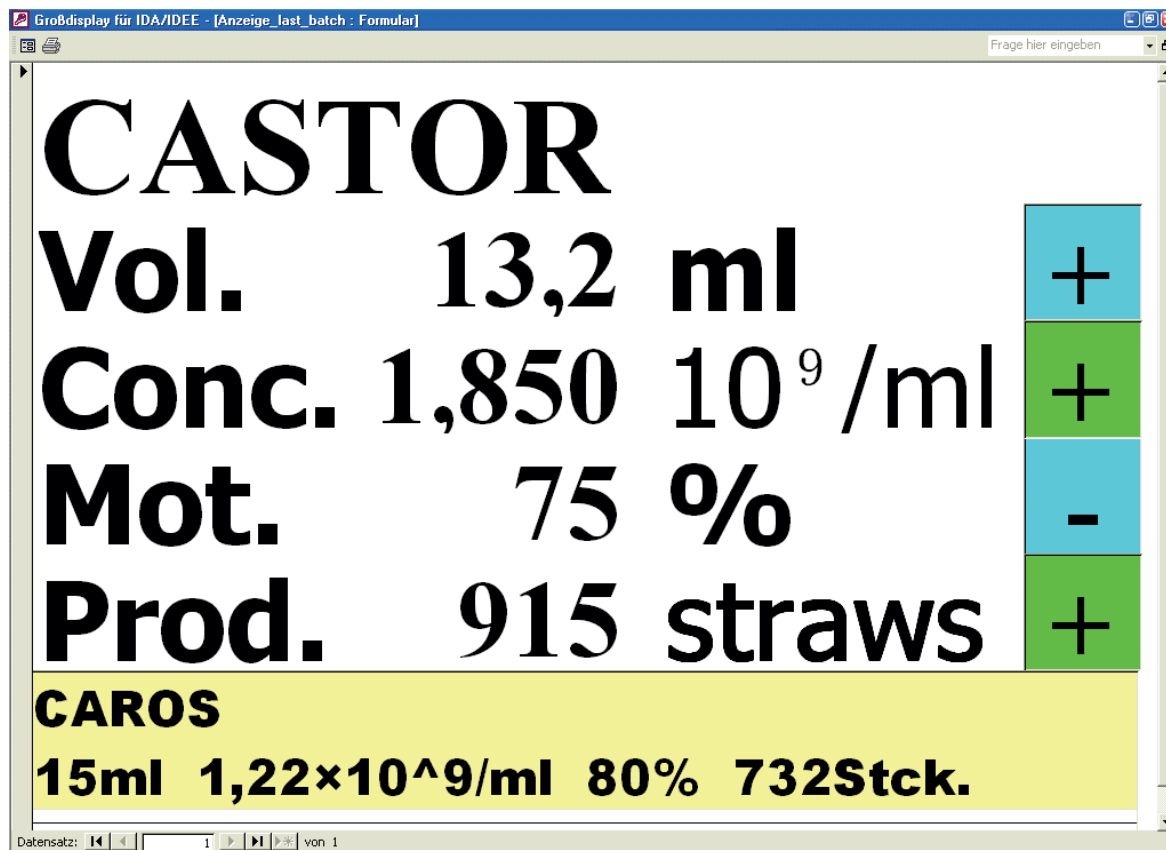




IDA software module Collection Area Display

The software module for a large display in the collection area can be combined with IDA as an add-on.

The display in the collection area offers to the semen collectors the possibility to observe the most important data of the recently collected ejaculates: volume, concentration, motility and number of doses which can be produced out of the ejaculate



The data of the actual ejaculate are shown with tendency markers in colours:

- Green field = very good values (above 10% improvement)
- Blue field = average values
- Red field = bad values (more than 10% decrease)
- +/- sign = shows the tendency

Additionally, the data of the last 4 ejaculates are shown every 5 seconds.

Your benefits

- Motivation: immediate feed-back for the barn personnel
- Colourful, large letters are easy to read and to understand
- Tendency markers give an immediate hint on the evolution of a certain bull

Software module

Collection area display REF. : 18400/1000

Monitor TFT 19" REF. : 18000/0189

PC REF. : 18000/0135

Minimum requirement for the PC:

Intel P4 2.8 GHz or AMD Athlon, 512 MB RAM

Windows 2000 Prof/ XP Prof, Microsoft Access 2000 (license necessary)



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