

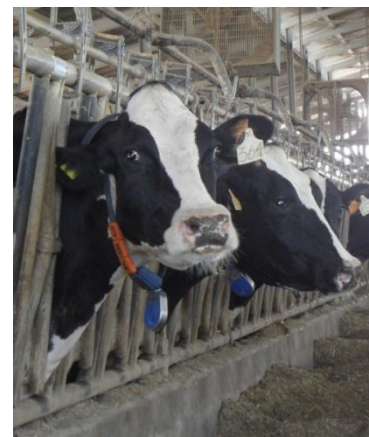
dg precisionFEEDING

THE PRODUCT

dg precisionFEEDING is a kit that gives you the possibility to bring to the mouth of the animal the optimal ration as it was programmed by the nutritionist.

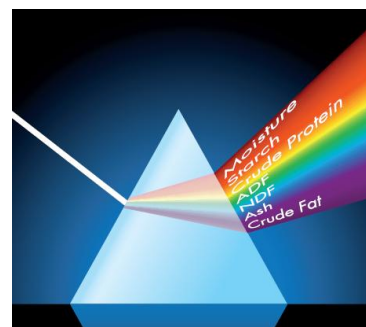
The NIR Analyzer allows the adjustment of the ration in real time during the loading phase.

NIR analyzer installed directly on the bucket of the loader is able to measure the DM and nutrients of forages and to recalculate in real time the target weight for the loading ingredient in order to keep TMR consistent.



FEATURES & ADVANTAGES

- Plug and play equipment
- Strong instrument (hard conditions working)
- Available for every feed mixer or front loader
- Auto detect
- Initial calibration included
- Performing analysis on line directly during feeding section
- Having the actual value on chemical parameters by ingredient
- The potentiality of adjusting the as-is weight automatically
- The certainty of maintaining the ideal and specific nutritional values as proposed by the nutritionist with the specific ration



WHAT WE ANALYZE?

FORAGES FAMILIES	NIR Chemical Parameters						
	Humidity or Moisture	Starch	Crude Protein	ADF	NDF	Ash	Crude Fat
CORN SILAGE	YES	YES	YES	YES	YES	YES	YES
HAY	YES	NO	YES	YES	YES	YES	YES
HIGH MOISTURE CORN	YES	YES	YES	YES	YES	YES	YES
ALFALFA HAY	YES	NO	YES	YES	YES	YES	YES
GRASS SILAGE	YES	NO	YES	YES	YES	YES	YES
T.M.R.	YES	YES	YES	YES	YES	YES	YES
SOYBEAN FLOUR	YES	NO	YES	NO	YES	YES	YES

Each analyzer sold, is equipped with 44 calibration curves

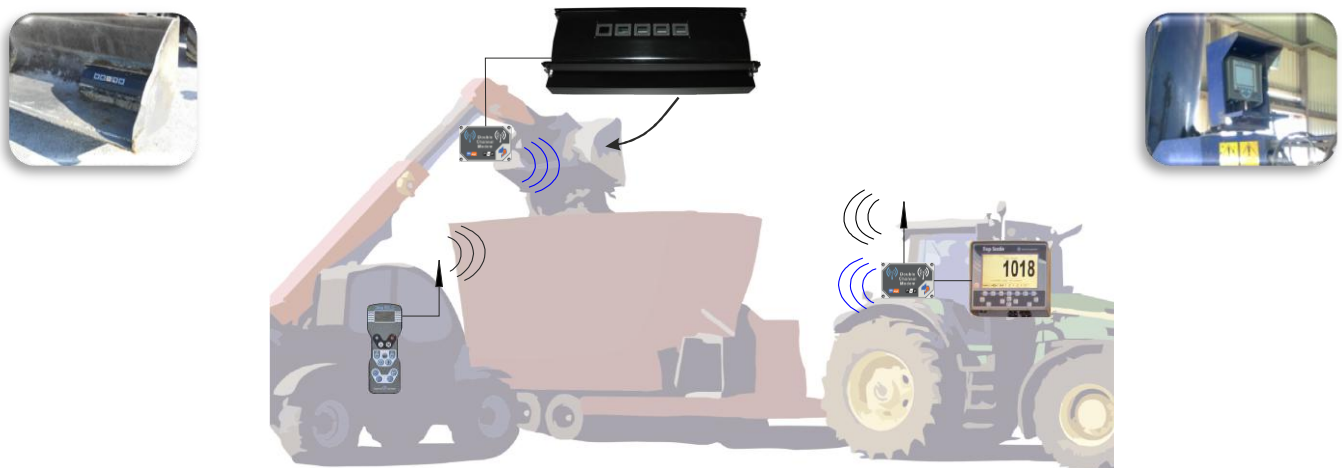
CONFIGURATIONS

3 VERSIONS AVAILABLE

- **FL Version** – for front loaders installation Pages 2 - 5
- **FM Version** – for self propelled feed mixers Pages 6 - 7
- **OL Version** – for automated load plant and feed wagon distribution Page 8

FL Version (Front Loaders)

- Wheel loader
- Telescopic loader



The system is divided into two parts:

- NIR Scanner, Dina TEL 2 Remote Control and related communication modem are installed on the loader, that can be a pay loader or a telescopic one.
- TOP SCALE 4 indicator and double channel communication modem are installed on the feed mixer or on the tractor.

Connectivity range:



How the dg precisionFEEDING-FL System Works:



1

Default values for each nutrient are set up in the DTM IC™ Feeding Software on the basis of the laboratory baseline obtained for each ration component. The feeding ratio as defined by the nutritionist is entered.



2

The prescribed ration data are transferred wirelessly from the DTM IC computer to the Top Scale Weighing Indicator mounted in the tractor/TMR mixer set up.



3

The IRM NIR Analyzer is mounted in the pay loader and performs a real-time NIR dry matter and nutrient analysis on each bucket during the loading of each ration ingredient.



4

The analysis is wirelessly transferred to the Top Scale indicator and adjusts the target weight for all the ration ingredients based upon "real" dry matter quantity to match the nutritionist's recommendation.



5

Weight adjustment information is wirelessly transferred to the pay loader operator via the Dina Tel 2 Remote Control.



6

The pay loader operator can then add or subtract to the volumes of ration ingredients loaded into the TMR mixer in order to more accurately match the nutritionist's recommendation for each batch of feed.



7

Cows are fed a precise ration which helps to enhance herd production and health while better managing refusal rates, feed efficiency, labor and overall feed costs.



8

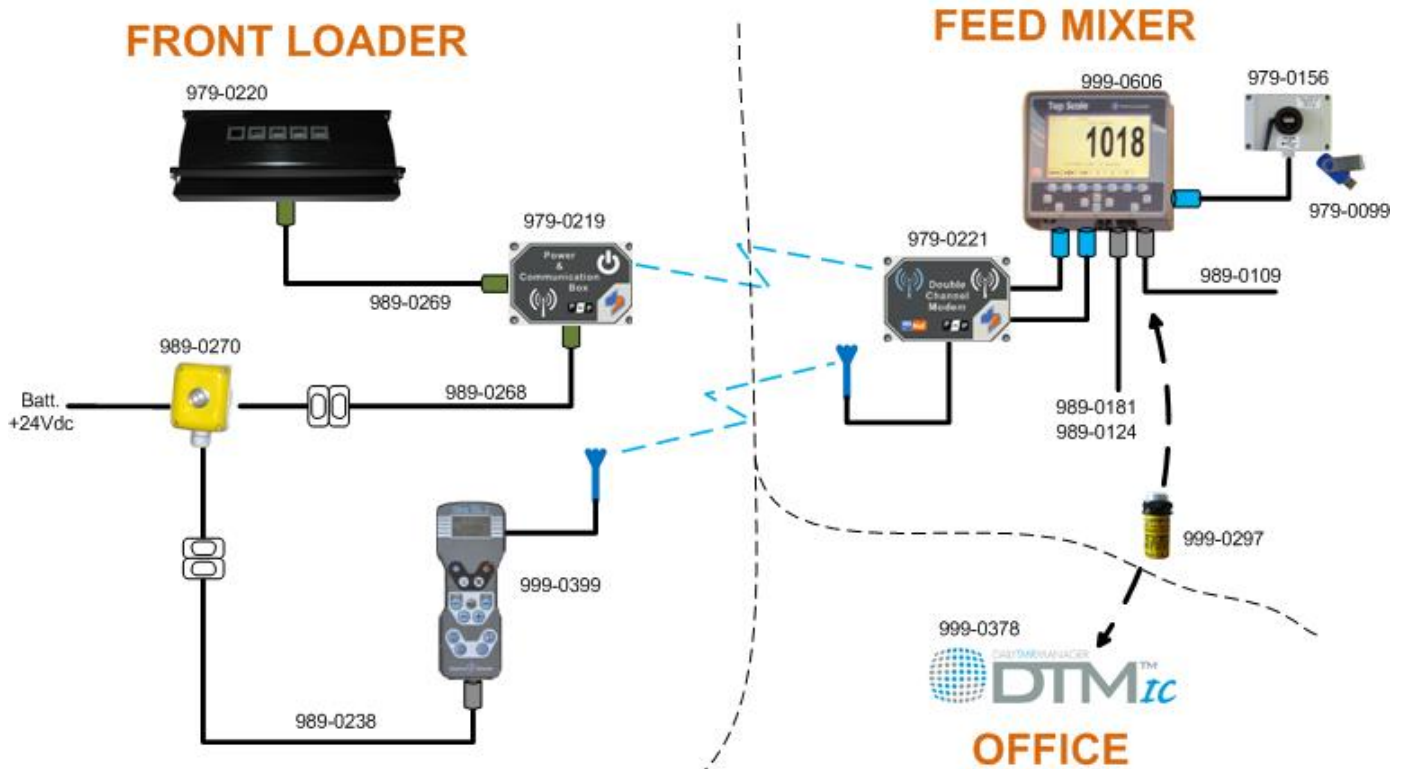
All loading data from each TMR mix is saved on the Top Scale indicator and is transferred wirelessly back to the main PC and DTM IC feeding management software.



9

The DTM IC stores all data and generates detailed statistical reports based upon quantities of all ingredients, costs, nutrients, labor time and, furthermore, to help influence any necessary adjustments or other management practices.

The system 999-0621 is composed of:



- 999-0378 DTMsuite - IC KIT
- 999-0606 TOP SCALE 4 HP-SPM-CG-B_IC
- 979-0221 IRM-FL-EVO Modem Double Channel
- 989-0109 Power cable 3,5mt SPM + Eyelets
- 989-0181 Sensor Cable L=10mt SPM + ECP
- 989-0124 Sensor Cable L=10mt SPM + Wires
- 999-0399 Dina TEL2 PRO FIX
- 989-0238 Power cable 3mt SPM-B 10pin F + Deutsch
- 979-0220 IRM-FL-EVO Scanner – 13
- 979-0219 IRM-FL-EVO Power & Communication Box- 13
- 989-0268 IRM-FL-EVO Cable Power scanner L=10m SOU 4pin+Deutch+Sheath
- 989-0269 IRM-FL-EVO Cable comm. scanner L=2m 2xSOU 18pin+sheath
- 989-0270 IRM-FL-EVO Selector Power-ON 2 x Deutsch + eyelets L=2m
- 979-0156 USB data interface
- 979-0099 USB Memory Key

OPTIONAL

- 979-0120 IP com (for WiFi data transfer between the TOP SCALE 4 and DTMIC)

The system is equipped also with USB reader and USB pen drive to upgrade and maintain the calibration curves.

PRECISION feeding

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DTM IC Professional Feed Management Software

DTM IC is the newest evolution of simple feeding management software in a professional, easy-to-use and integrated solution for farmers. Installed on one or more computers for multi-user access - including your nutritionist - it keeps complete records of each feeding and generates highly detailed reports. All farm activities can be managed with DTM IC. Using this innovative tool is an easy way to decrease costs and increase profits.

- Accurate monitoring and control of feed costs, DM intake and refusal management
- Batch creation, ration adjustment, inventory management, component selection, pen management
- Precise instruction and control over feeding labor • Wireless information transfer
- Better management of feed inventories, component tracking and commodity purchasing
- Software will interface with other herd management programs
- Detailed report or graph generation of any data for statistical control
- Better productivity, less waste, better herd health, economic benefits



Top Scale IC Weighing Indicator

The Top Scale IC is the heart of the dg precisionFEEDING System, receiving programmed ration information from the DTM IC software. Using this information, the Top Scale IC makes “on-the-go” feed adjustments based on dry matter and nutritional component measurements in each payload bucket. The result is precise ration construction based on dry matter values for each pen fed. All information on the rations constructed and fed is wirelessly transferred back to the DTM IC software following feeding for daily tracking and management.

- Complete management over feed inventories and costs
- Full traceability of feed stuffs used
- Built in alarms based on feed quality and required lead times for efficient purchasing
- Automatic scheduling
- Pen-by-pen recipe information and batch management



Dina Tel 2 Remote Control

The Dina Tel 2 Remote Control wirelessly communicates with the Top Scale IC to transfer information about ration construction to the pay loader operator. The “real-time” updates inform the operator of the exact weight of a feed ingredient still needed for precise ration construction.

- Names and starts NIR analysis
- Provides direct access to server menu
- Selects programs and reports ration recipe ingredients



IRM NIR Forage Analyzer

The NIR Analyzer (IRM™ Intelligent Ration Management) is mounted in the payload bucket and uses the latest near infrared technology to quickly measure and report dry matter and nutrient content of each load before it is dumped into the TMR mixer. The extremely accurate data is sent wirelessly to the Top Scale IC where it is matched against the prescribed ration.

- Analysis in 30 seconds!
- Reads dry matter, protein, starch, fiber, ash and fat; defining the real nutritional value of each ingredient
- Plug and play equipment
- Strong instrument that handles tough working conditions
- Available for every feed mixer or front loader
- Initial calibration included

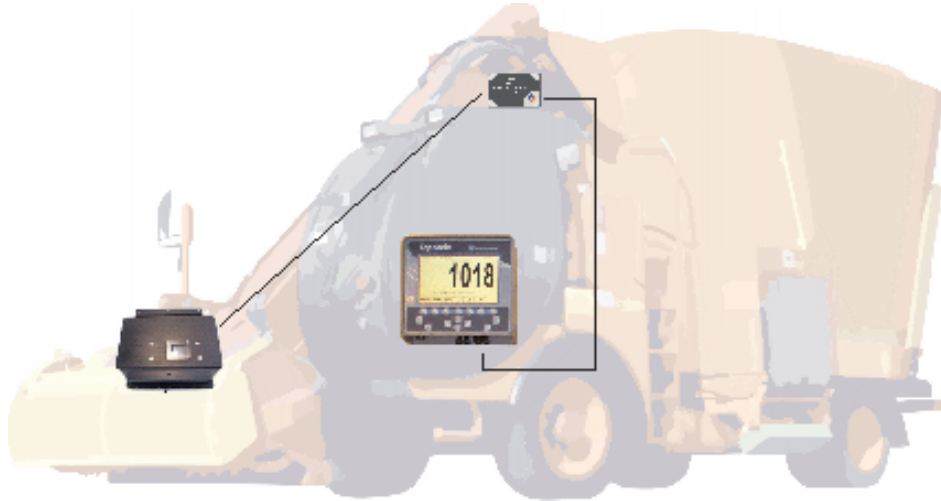


PRECISION feeding

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FM Version (Feed Mixer)

- Self-propelled mixer



How the dg precisionFEEDING-FM System Works:



1

Default values for each nutrient are set up in the DTM IC™ Feeding Software on the basis of the laboratory baseline obtained for each ration component. The feeding ratio as defined by the nutritionist is entered.



2

The prescribed ration data is transferred wirelessly from the DTM IC computer to the Top Scale Weighing Indicator mounted in the self-propelled mixer cabin.



The IRM NIR Analyzer is mounted on the scraper of the front miller and performs a real-time NIR dry matter and nutrient analysis during the loading of each ration ingredient.



4

The analysis is transferred to the Top Scale indicator and adjusts the target weight for all the ration ingredients based upon "real" dry matter quantity to match the nutritionist recommendation.



The operator can then add or subtract to the volumes of ration ingredients loaded into the TMR mixer in order to more accurately match the nutritionist's recommendation for each batch of feed.



7

Cows are fed a precise ration which helps to enhance herd production and health while better managing refusal rates, feed efficiency, labor and overall feed costs.

PRECISION feeding

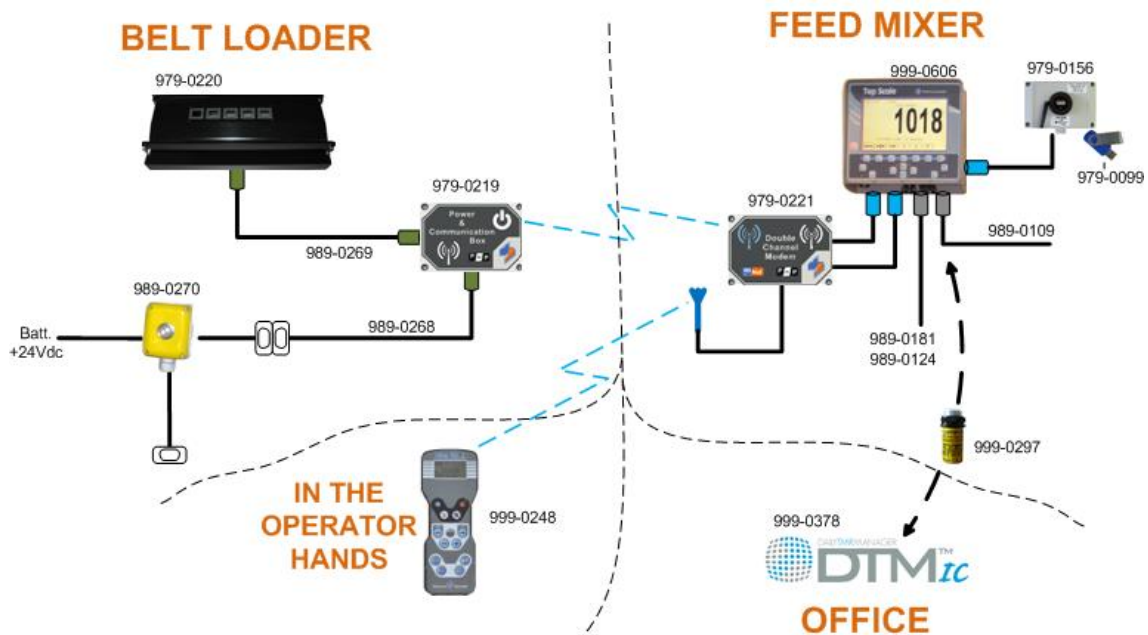
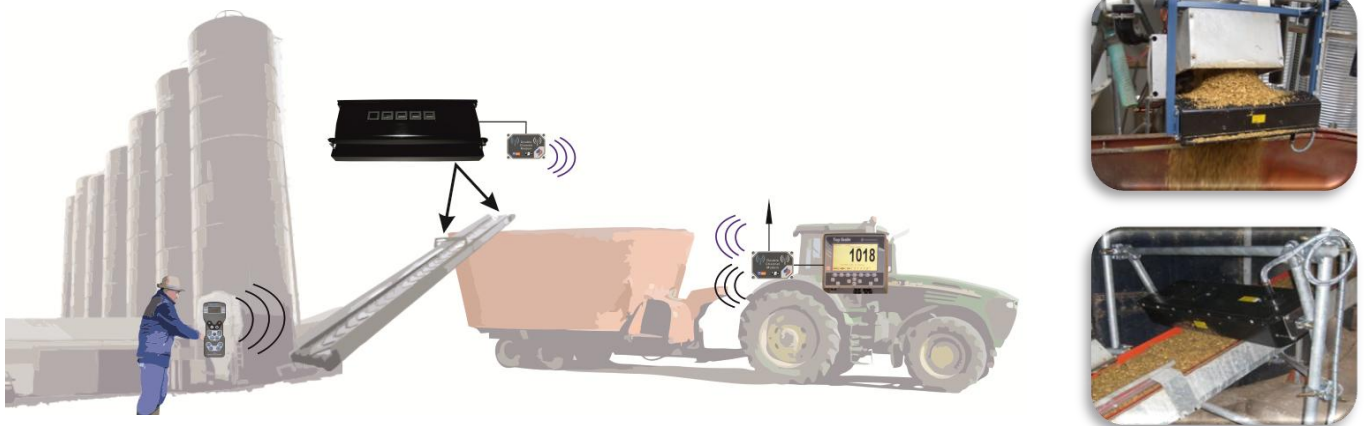
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Version OL (On Line)

- Custom application

This solution has the same configuration of the FL Version but the scanner is not installed in the bucket.

Since the material is loaded with automatic process through belt the scanner is installed directly on it, contact us to configure the system in function of your plant.



PRECISION feeding

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TECHNICAL DATA

Resolution	Humidity: 2%*	Working Temperature	-20 ÷ +50° C
	Starch: 3%	Power	12 ± 2 Vdc
	Protein: 3%	Protection	IP 66
	Fiber: 3%	Wireless range	100 m / 330 feet
	Ash: 3%	WiFi data exchange range	1 Km / 0.62 miles

* after the initial verification thanks to the thousand of sample that includes our calibration curve for each specific area we can reach an accuracy also of 1% or less.