

WINTERSTEIGER Seedmech

LABORATORY PREPARATION

 **WINTERSTEIGER**
Thinking about tomorrow.



In the earth lies the seed of new growth

The significance of agricultural research is changing rapidly. Soil erosion, global increase in population, bio energy, and the change in climate are the challenges of the future, in which answers are needed.

With an integrated solution in modern field testing, WINTERSTEIGER already answers one of these questions. This enables research, breeding, testing and seed increases from farmers' crops to specialized agriculture at the highest level.

The overall success of mechanized field trials depends on the best products throughout the whole breeding process. In this brochure, you can therefore expect a large amount of equipment for laboratory preparation – each item conforming to the familiar high quality level of WINTERSTEIGER products.

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LD 350 Laboratory Thresher

The WINTERSTEIGER LD 350 is a laboratory thresher for use with individual plants, bundles and small plots: a wide range of crops can be threshed from very small vegetable seeds to large beans. The LD 350 is suitable for threshing, de-awning and cleaning cereals, pulses, vegetable seeds, clover, grass, rice, etc. without breakage, loss of seed or mixing.



Functional principle

- Bundles of crop are fed into the threshing unit via the loading hopper
- Stepless wind speed adjustment means maximum cleaning of the crop
- Straw is collected in a sack while the smaller chaff particles are separated from the seeds and are collected in two separate drawers
- Stepless variable adjustment of the threshing drum speed, 18 different concaves, de-awners and beaters ensure simple adjustment for different types of crop



Loading



Changing the threshing basket

Technical Data

| | |
|---------------------------|---|
| Three phase motor | 3 x 208-240 V, 50/60 Hz, 2,3 kW 3 x 360-415 V, 50/60 Hz, 2,3 kW |
| Alternating current motor | 1 x 208-230 V, 60 Hz, 2,3 kW |
| Threshing drum | 300 - 1400 rpm stepless |
| Dimensions | |
| Length | 1850 mm (73") |
| Width | 720 - 1000 mm (28" - 39") |
| Height | 1700 mm (67") |
| Weight | Approx. 230 kg (507 lbs) |
| Options | |
| Petrol engine | 2,9 kW (4 PS), 169 ccm |
| Diesel engine | 3,5 kW (5 PS), 230 ccm |
| Chassis | With 2 wheels With 4 wheels (ø 100 mm or ø 260 mm) (ø 4" or ø 10") |
| Trailer | Single axle trailer without brake with Tow bar and light |

We reserve the right to make technical alterations.

Options

The following mobile versions of the WINTERSTEIGER LD 350 are available:



Chassis with 2 wheels



Single axle trailer with light



Chassis with 4 wheels

18 different concaves enable perfect threshing:

| | |
|------------------------|---|
| 1 x 3 mm | for especially fine-grained seed, e.g. clover, grass, flowering crops (cauliflower, cress, vetch, etc.) - if smaller than 1 mm |
| 1,5 x 4,5 mm | for fine-grained seed, e.g. clover, grass, flowering crops (chicory, lettuce, cress, vetch, etc.) - if smaller than 1.5 mm |
| 2 x 6 mm | for clover, grass, flowering crops and fine vegetable seeds (leeks, cauliflower, chicory, cress, vetch, etc.) - if smaller than 2 mm |
| 2,5 x 7,5 mm | for clover, grass, rape seed, flowering crops and fine vegetable seeds (red cabbage, white cabbage, carrots, onions, fennel, broccoli, etc.) - if smaller than 2.5 mm |
| 3 x 9 mm | for clover, grass, rape seed, flowering crops and fine vegetable seeds (cabbage, onions, fennel, broccoli, radish, cress, etc.) - if smaller than 3 mm |
| 4,5 x 13,5 mm | for clover, grass, flowering crops, fine vegetable seeds, cereals, specialized crops (radish, wheat, millet, sorghum, etc.) and all types of seed smaller than 4.5 mm |
| 5 x 15 mm | for medium grain cereals (wheat, oats, sorghum, etc.) and all types of seed smaller than 5 mm |
| 6 x 18 mm | for larger grain cereals (oats, rye, etc.) and all types of seed smaller than 6 mm |
| 3 x 3 mm | for round types of seed, e.g. vegetable seeds and specialized crops (red cabbage, white cabbage, leeks, onions, broccoli, etc.) - if smaller than 3 mm |
| 4 x 4 mm | for round types of seed (radish, spinach, etc.) - if smaller than 4 mm |
| 5 x 5 mm | for round types of seed (sugar beet, etc.) - if smaller than 5 mm |
| 6 x 6 mm | for round types of seed (sugar beet, vetch, etc.) and also cereals (barley, rice, etc.) - if smaller than 6 mm |
| 8 x 8 mm | for round types of seed (peas, chick peas, vetch, etc.) - if smaller than 8 mm |
| 10 x 10 mm | for round types of seed (peas, chick peas, beans, lupin, etc.) and also longish seeds such as cereals - if smaller than 10 mm |
| 12 x 12 mm | for round types of seed (peas, chick peas, beans, soybeans, lupin, etc.) or even longish seeds - if smaller than 12 mm |
| 15 x 15 mm | for large grained types such as peas or chick peas, soybeans, etc. - if smaller than 15 mm |
| 18 x 18 mm | for especially large grained types such as peas or chick peas, large beans, etc. - if smaller than 18 mm |
| 20 x 20 mm | for especially large types such as large beans - if smaller than 20 mm |
| Hopper thresher basket | for rice |

De-awner bars are available as an option.

LD 180 Laboratory Thresher

The WINTERSTEIGER LD 180 is a laboratory thresher for cereals, peas, grass and small grain crops. The clear-view screen creates an unobstructed view of the threshing and cleaning process, enabling precise control of the threshing process.



Functional principle

- The individual heads or bundles up to 18 cm in length can be fed into the threshing drum. Alternatively, the entire stem can be fed into the threshing drum and the empty heads taken out, still on the stems
- A foot pedal is used to open the bottom door of the drum and empty the contents into the seed drawer
- The wind flow can be adjusted so the harvested crop is as clean as possible
- Simple stepless adjustment of the threshing drum speed for different types of crop
- The chaff and the remaining stalks are extracted by a fan into a chaff sack

Technical Data

| | |
|---------------------------|--|
| Alternating current motor | 1 x 220-230 V, 50 Hz, 0,75 kW 1 x 110 V, 60 Hz, 0,75 kW |
|---------------------------|--|

| | |
|----------------|--------------------------|
| Threshing drum | 560 - 1,400 rpm stepless |
|----------------|--------------------------|

| | |
|-----|----------|
| Fan | 1720 rpm |
|-----|----------|

Dimensions

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|--------|--------------|
| Length | 750 mm (30") |
|--------|--------------|

| | |
|-------|--------------------------|
| Width | 450 - 750 mm (18" - 30") |
|-------|--------------------------|

| | |
|--------|---------------|
| Height | 1100 mm (43") |
|--------|---------------|

| | |
|--------|-------------------------|
| Weight | Approx. 60 kg (132 lbs) |
|--------|-------------------------|

Options

| | |
|---------------|---|
| Petrol engine | 2.2 kW (3 PS), air cooled with hand starter |
|---------------|---|

| | |
|---------|---|
| Chassis | 2 wheels with rubber tyres and transport handle |
|---------|---|



Loading

We reserve the right to make technical alterations.

Hege 16 Laboratory Thresher

The Hege 16 is a laboratory thresher for cereals, peas and small grain crops with optional magazine filling attachment. The clear-view screen creates an unobstructed view of the threshing and cleaning process, enabling precise control of the threshing process.



Functional principle

- The proven threshing technology of the Hege 16 guarantees fast threshing and grain protection
- The threshed crop is cleaned in the reverse flow wind process and collected in a container or magazine
- Variable adjustment of the threshing drum speed and the central concave, different concaves, deawners and beaters ensure simple adjustment for different types of crop
- Stepless wind adjustment means maximum cleaning of the crop

Technical Data

| | |
|---------------------------|-------------------------------|
| Three phase motor | 3 x 400 V, 50 Hz, 1,1 kW |
| Alternating current motor | 1 x 220-230 V, 50 Hz, 0,75 kW |
| Threshing drum | 430 - 2,400 rpm stepless |
| Dimensions | |
| Length | 950 mm (37") |
| Width | 600 mm (24") |
| Height | 1200 mm (47") |
| Weight | Approx. 95 kg (209 lbs) |

We reserve the right to make technical alterations.



Loading



Option: Magazine hopper

Hege 11 Liquid Seed Treater

With the Hege 11 liquid seed treater it is possible to treat different quantities of seed using three different sizes of seed bowls for small quantities (20 – 3000 g).



Functional principle

The centrifugal force in the drum pushes the seed onto the outer wall and brings it into circulation and the spinning disc distributes the seed treatment evenly over the seed.

Dosing is by means of:

- Dispensettes for treating seed with one standard dressing
- Varipettes with interchangeable tips for different treatments

The unit is driven by an electric motor.

Performance features

- Seed bowls easily changed for different quantities
- Suitable for all types of seed
- Accurate dosing of the seed treatment ensures consistently high quality of treatment on every single seed (even with small quantities)
- Preservation of germination ability due to careful treatment
- Easy and complete emptying of the seed bowl tank
- Option: Air-operated unit for complete cleaning of the dressing drum



Seed bowl small - medium - large



Varipette



Dispensette with brown glass bottle

Technical Data

| | | |
|--------------------------------|---|---|
| Seed quantities / Seed bowl | Small Medium Large | 1 l for 20 – 100 g seed 7 l for 80 – 1000 g seed 14.5 l for 400 – 3000 g seed |
| Emptying | Manually by use of a hand lever | |
| Alternating current motor | 1 x 208-230 V, 50/60 Hz 1 x 110 V, 60 Hz | |
| Dimensions | | |
| Length | 700 mm (28") | |
| Width | 550 mm (23") | |
| Height | 1300 mm (47") | |
| Weight | Approx. 60 kg (132 lbs) | |

We reserve the right to make technical alterations.



Option: Air-operated unit

Hege 14 Liquid Seed Treater

The Hege 14 liquid seed treater is particularly suitable for batch dressing and coating for larger quantities of seed in batches (up to 10 kg).



Functional principle

The centrifugal force pushes the seed onto the outer wall and brings it into circulation. The dosing pump sprays the seed treatment onto the spinning disc and distributes it evenly over the seed.

Performance features

- Suitable for all types of seed
- Accurate dosing of the seed treatment ensures consistently high quality of treatment on every single seed (even with small quantities)
- High output due to short mixing times (1 – 3 batches per minute)
- Preservation of germination ability due to careful treatment
- Easy and complete emptying of the seed dressing tank
- No cleaning times when changing seed types

Technical Data

| | |
|---------------------------|--|
| Seed quantities | Up to approx. 10 kg (depending on type of seed) |
| Emptying | Pneumatically operated emptying flap |
| Three phase motor | 3 x 208-240 V, 50/60 Hz 3 x 360-415 V, 50/60 Hz |
| Alternating current motor | 1 x 110 V, 60 Hz |
| Dimensions | |
| Length | 800 mm (31") |
| Width | 800 mm (31") |
| Height | 1300 mm (51") |
| Weight | Approx. 135 kg (298 lbs) |

We reserve the right to make technical alterations.



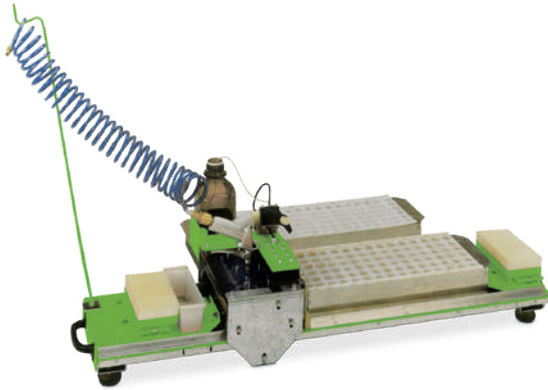
Dosing pump



Rotary disc

Hege 12 Liquid Seed Treater

The Hege 12 liquid seed treater can be used to dress seed in 12-chamber magazines. 4 and 6-chamber magazines can be used for small quantities.



Functional principle

The dressing slide is drawn across the magazine. At the same time the seed is set in motion by means of compressed air. A dosing unit sprays an exact pre-measured quantity of seed treatment onto the moving seeds. Dosing is from a 0.5 l reservoir and can be set from 200 to 2000 ml.

Performance features

- Accurate dosing of the seed treatment and intensive mixing of the seed ensure a consistently high treatment quality
- Extremely precise adjustment of the amount of seed treatment used on the dosing unit
- Easy to operate
- High output: 10 pcs. 12-chamber magazines in approx. 45 seconds

Technical Data

Basic unit

- Dressing carriage with dosing unit and integrated air nozzles
- 2 magazine trays for fixing and transporting chamber magazines
- Purging device for cleaning the dosing unit

Dimensions

| | |
|--------|------------------------|
| Length | 115 mm (5") |
| Width | 400 mm (16") |
| Height | 400 mm (16") |
| Weight | Approx. 16 kg (35 lbs) |

We reserve the right to make technical alterations.

Hege 44 Sample Chopper

For chopping up fodder plants for trials, such as all types of clover and grasses, alfalfa, silo corn and catch crop plants.

Functional principle

The plant sample is put on the conveyor band. By pushing the lever of the press roller, the feeding mechanisms are engaged and the sample is fed to the disc wheel chopper. The feeding roller remains pushed down until the entire sample is chopped. The chopped material is then discharged into a collecting bin.



Performance features

- Continuous feed of chopping material through one press roller, two feeder rollers and a band conveyor
- Top feeding roller is positioned by springs and adapts automatically to the plant samples rate and presses the material to be chopped forward
- The disc wheel with 3 specially coated knives guarantees the best chopping quality
- Chopping length is easily changed by a stepless adjustment of the feeding speed
- Tray for chopped material
- Mainly self-cleaning
- Option: Knife grinder

Technical Data

| | |
|---------------------------|---|
| Alternating current motor | 1 x 208-240 V, 50/60 Hz 1 x 110 V, 60 Hz |
|---------------------------|---|

| | |
|--------------|--------------|
| Tray content | Approx. 20 l |
|--------------|--------------|

Dimensions

| | |
|--------|--------------|
| Length | 800 mm (31") |
|--------|--------------|

| | |
|-------|--------------|
| Width | 600 mm (24") |
|-------|--------------|

| | |
|--------|---------------|
| Height | 1050 mm (41") |
|--------|---------------|

| | |
|--------|--------------------------|
| Weight | Approx. 130 kg (287 lbs) |
|--------|--------------------------|

We reserve the right to make technical alterations.

Hege 6 Sample Divider

For dividing seed into bags or dish.

Functional principle

- When the funnel is lifted, the seed falls into a multi-chambered conical distributor and is divided into bags or bowls
- Indirect process: 2 – 3 – 4 – 5 – 6 divisions. The samples are joined into one sample from two chutes. This provides precise distribution of seed samples
- Direct process: 4 – 6 – 7 – 8 – 10 – 12 quantities. Here, one chute corresponds to one division. Various distributors are available depending on the required quantities

Performance features

- Previously weighed quantities of seed are divided into equal quantities in seconds
- Fast and economical method of seed preparation
- Options: Different filling funnels
Ø 30 – 50 – 75 mm (Ø 1.18" - 2" - 3")



Hege 7 Sample Divider

For dividing seed into chamber magazines.

Functional principle

When the filling funnel is lifted the seed falls into a multichambered conical distributor and is divided into quantities by bringing together 2 chutes and then filled into the 4 or 6 chamber magazines.

Performance features

- Previously weighed quantities of seed are divided into equal quantities in seconds
- Fast and economical method of seed preparation
- Different filling funnels
Ø 30 – 50 – 75 mm (Ø 1.18" – 2" – 3")



The delivery is just the start of our service

The best time to evaluate the quality of an investment is several years after delivery. That is why WINTERSTEIGER has set up a worldwide After Sales Service.

Commissioning and training

WINTERSTEIGER ensures both with its experts worldwide and of course on site.

Proactive maintenance

Maintenance and preventive exchange of pre-defined parts subject to wear and tear at pre-set times eliminate problems before they arise.

On-Call-Help-Desk

This service underlines our high claims for service for our partners worldwide. It ensures first class support even outside our own hours of business.

Strong customer service team

A large team of extremely well trained service staff provides comprehensive care for:

- Installation and commissioning
- Training
- Preventive maintenance
- Conversions
- Modifications
- Clearing faults
- Repairs
- Online Support
- Rapid supply of replacement parts

Intensive guidance and training courses

WINTERSTEIGER regularly holds guidance and training courses for operating staff, either directly on site, in our original building in Austria or one of our agencies around the world. They are the basis for perfect mastery of the machines and an uninterrupted harvest. This helps avoid down time and saves costs. Both WINTERSTEIGER service engineers and the service engineers from our agencies receive ongoing training and product information about new developments.



Those who sow also harvest with WINTERSTEIGER.

WINTERSTEIGER is the world's number one in field research equipment and has established itself at the top of a niche market which will continue to gain significance in future. The big challenge faced by agronomists and plant breeders is introducing new developments that make a decisive contribution towards sustainable food and energy supplies for the world.

WINTERSTEIGER offers complete solutions for the entire sowing and seed cultivation process. The WINTERSTEIGER „one-stop-shop“ concept provides customers with everything they need from a single source. As application specialists, Wintersteiger's process expertise and proactive services along the entire value chain delights our customers.

The product range includes: plot and multiplication combines, plot forage and silage harvesters, plot seeders and planters, software solutions for data management and note taking, fertilization and crop protection equipment, as well as laboratory equipment.



As complete provider in agricultural testing, WINTERSTEIGER proves itself as strong partner for customers in various fields:

- Agricultural Universities and research centers
- Agricultural ministries and their departments for plant breeding
- National and international institutes for development projects
- National and international companies that research in the field of plant breeding
- Service companies that test for research companies

Precious seed deserves a careful harvest



WINTERSTEIGER – a Global Player

WINTERSTEIGER Holding AG is an international machinery and plant engineering group. Founded in 1953, it has gradually established itself as a leading provider of innovative solutions for customers in technically sophisticated niche markets. The WINTERSTEIGER Group comprises the following divisions:

Division Seedmech

WINTERSTEIGER Seedmech GmbH



Division Metals

Kohler Maschinenbau GmbH



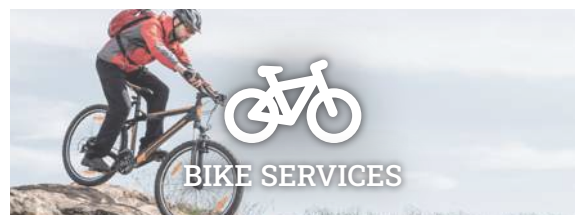
Division Woodtech

WINTERSTEIGER Woodtech GmbH



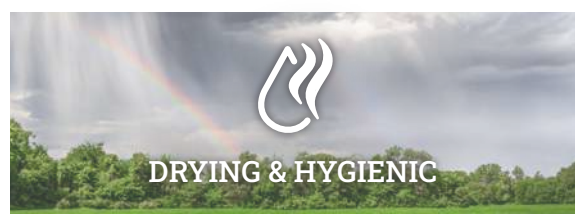
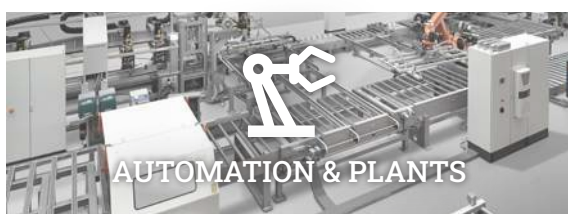
Division Sports

WINTERSTEIGER Sports GmbH



Division Dry & Protect

WINTERSTEIGER Dry & Protect GmbH





WINTERSTEIGER
Thinking about tomorrow.

