



Vegetable Oil Extraction

Haarslev Industries has years of experience offering solutions for the oil industry. We design, manufacture and supply quality continuous presses for oil extraction. Our development program allows us to gain experience from different types of raw materials such as sunflower, rapeseed, soybeans, almonds, corn germ and more recently from jatropha seeds.

To satisfy the demand from new and fast-growing markets our presses have been adapted to optimise the production and oil quality requirements.

Haarslev Industries

Haarslev Industries is one of the world's leading companies within handling and processing of by-products from food-related industries. We have manufactured continuous seed presses since the early 1970s.

Haarslev Industries has head office in Denmark, production facilities in Spain, Brazil, Peru and China and commercial offices in UK, Germany, Norway, USA and Russia.



Cold Pressing

Haarslev Industries offers solutions to meet the various needs from different markets with our product program and pressing technologies.

Cold pressing

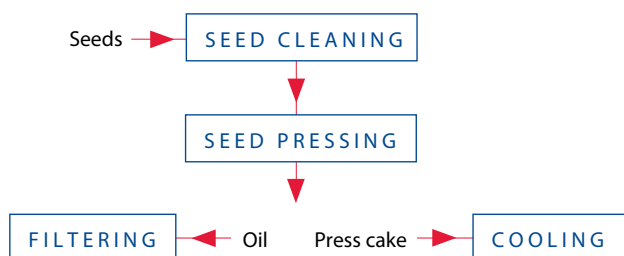
The highest quality of crude oil is obtained by use of cold pressing technology.

In the preparation stage the seeds are pre-heated up to a maximum of approximately 25 °C, as required. Slow controlled mechanical extraction keeps the temperature down and thus, after filtering, the best quality oil is obtained as compared to other extraction processes.

The end-product is ideal for both the biofuel and food industries. The final use of the press cake, gives additional high value, depending on the raw material pressed (e.g. animal feed, biomass, fertiliser).



Main stages of cold pressing



Hot Pressing

The main components of the hot pressing process are the cooker, to ensure the right temperature previous to the pressing stage, and the continuous presses, which can be manufactured in a wide range of models.

Hot pressing can be carried out as pre-pressing when a solvent extraction plant is used to recover the oil left in cake after pressing or as full pressing when residual oil content left in the meal is not critical.

Pre-pressing

For large capacity plants the pre-pressing technology is appropriate. In this process hot pressing is the first extraction stage which obtain a seed cake with approximately 20% of oil content. The seed cake is further processed by means of solvent extraction.

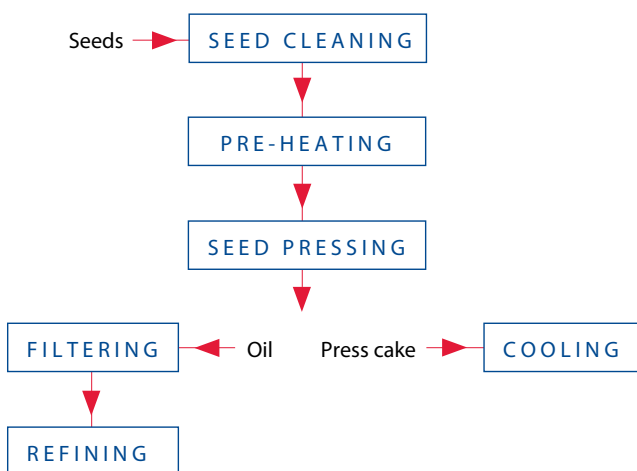
Full pressing

Heating and pressing of seeds in stages to extract the oil results in a low-oil cake.

Full pressing is used for lower capacities. The oil is removed by mechanical extraction, without solvent extraction, thereby reduces the initial investment.



Main stages of hot pressing



Screw Presses

The oil seed screw press is used for continuous mechanical oil extraction. Generally, the press consists of a special press screw conveyor surrounded by a hardened steel cage with minute gaps between the cage segments.

The clearance between the cage and the conveyor decreases towards the discharge point. As the seeds pass along the conveyor, the oil is pressed out and the seeds are discharged as meal. The bottom of the frame is trough-shaped so that the separated oil is collected.

Complete Solutions

The solutions available from our Haarslev Industries encompass small compact plants composed of one single press to large plants for large scale production formed from multiple sets of seed presses.

We can supply turn-key plants including all additional equipment for:

- reception and storage of seeds
- preparation of the seeds (e.g. cleaning, size reduction, thermal treatment)
- pressing and transport of oil and seed cake
- filtration of the oil, mainly oil tanks, filters and air compressors
- Oil and seed cake storage

Complementary equipment and accessories needed to fully automate all processes can also be supplied.

A highly qualified and experienced team carries out the assembly and start-up supervision to ensure that all the established objectives and requirements are achieved.

Our pilot plants, available in our Europe and South American facilities, allow full testing of each customer's seeds in order to determine the exact configuration of any equipment required and all the process parameters.

Benefits

Full service: from first proposal to operation.

Complete and fully automated solutions.

Highly qualified and experienced workforce.

High and low capacity solutions.

Effective after sales service.

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