

# HYDROC

## Hydro-Extracting Technology for Superior Quality



### The Process

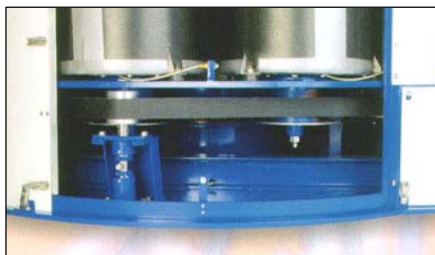
The yarn package is loaded into a stationary basket at the loading opening of the extractor. On a round turntable, the basket is slowly and continually traveling in a large circle. Once the basket leaves the loading area, it disappears underneath the centrifuge housing where the bobbin is accelerated to 5500 - 6500 RPM.

The acceleration is achieved by a drive belt, which is continually kept in motion by the central drive motor. Deceleration is achieved by an inductive brake. This magnetic braking system has no moving parts and has the great advantage of noise reduction and reduced wear on bearings, supports and sheaves.

The loading and unloading process of one package at a time allows for continuous operation of the hydro-extractor.



For loading and unloading the hydro-heads of the Hydroc stand still



The drive system



The unique magnetic braking system

### Detail Description

The name HYDROC stands for almost 50 years of experience in the field of single head hydro-extraction of yarn packages. The robust design of the machine has proven itself over many years.

**The centrifuge heads** are made of high-strength aluminium. The high rotational speeds of up to 6500 RPM allow for high dewatering efficiency with low residual humidity in the package.

**The closed water drainage system** from the centrifuge heads to the plant's drainage pit and a rugged flat machine cover over the rotating baskets assures that the hydro-extractor remains dry and operates at low noise levels.

**The new machine** is equipped with a contactless and wear-free electro-magnetic brake. The permanent magnets do not need electric power.

**This type of brake** has the advantage that no indefinable forces affect the pulleys, rubber bearings and ball bearings. Due to the contact-free braking the noise level is reduced remarkably. The brake does not need maintenance.

**The loading height** of one meter above floor level is optimal for ergonomic loading and unloading. The hydro-extractor and RF dryer can be operated by the same person.

HYD 100.0 e

LAB-PRO GmbH  
Dorfstrasse 19  
CH-4806 Wikon / Switzerland

Phone: +41 62 745 16 00  
Fax: +41 62 745 16 01

info@lab-pro.ch  
www.lab-pro.ch

## Advantages to convince anyone

### The yarn quality satisfies the highest requirements

- No deformation of the packages
- Excellent rewinding properties
- Low residual moisture
- Even humidity distribution through the package

### Economical solution for efficient and flexible production

- Low energy consumption
- Rewinding can be eliminated in a lot of cases
- Dyeing tubes last longer
- Processes many different size packages
- Operator of centrifuge can also load dryer
- Maintenance-free brakes

### Ecological production

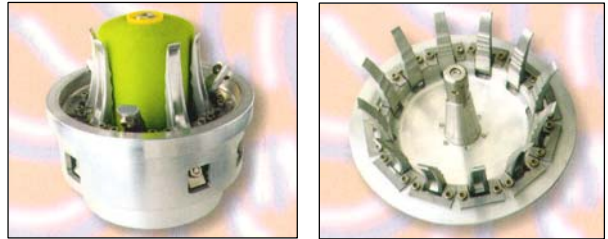
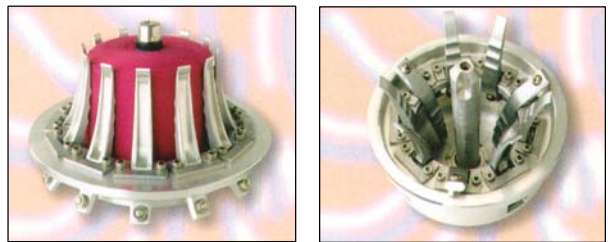
- Closed system for effluent
- Low compressed air consumption
- Significant energy savings
- Low noise level
- Ergonomic design

### Technology, service and continual research

- 45 years of experience provides extensive know-how
- Worldwide distribution and service infrastructure
- Continuous research in process improvement

### Expansion to automated production system possible with use of robot handling

- Robotic loading and unloading of centrifuge and automated transport to radio frequency dryer.



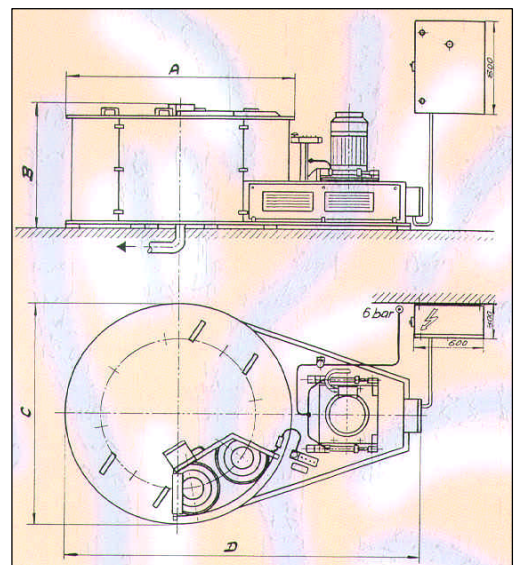
The automatic grip system allows simultaneous processing of different package diameters up to a variation of 30 mm.

### Dimensions and production capacities:

Type	A Ø	B	C	D	Packages/h
10	2'220	1'054	2'253	3'365	400 - 500
8	1'907	1'054	1'940	3'050	320 - 400

### Remaining humidity after the extraction process:

TEXTURIZED POLYESTER HE	approx.	6 %
TEXTURIZED POLYESTER	approx.	8 %
ACRYLIC HB AND POLYAMIDE	approx.	10 %
ACRYLIC	approx.	15 %
WOOL	approx.	30 %
COTTON	approx.	55 %
JUTE	approx.	50 %
VISCOSE	approx.	70 %
POLYESTER - ENDLESS - SEWING THREAD	approx.	10 %



The remaining humidity after hydro-extraction can vary  $\pm 10\%$  depending on yarn number / density as well as on the chemicals used during dyeing and the type of aftertreatment.