

# Leather processing systems

Made in Germany

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# business

Dose is a German company located next to the city Baden-Baden in Southwest Germany, near France.

Since more than 60 years now we are experienced in developing and manufacturing machines and systems made in stainless steel for the tanning industry.



# dose competence

**Specializing in stainless steel leather processing systems:**

- Tanning, retanning and dyeing drums**
- Laboratory and experimental drums**
- Water mixing and dosing systems**
- Hide and leather chemical dosing**
- Dose tannery automation system**
- Process management software**
- Service and consulting**



# dosemotion

float processor - state of the art

The dosemotion is a float processor that combines state of the art technology with a proven float circulation, a simple construction and the latest findings relating to the hide and leather action in the drum.

The interaction of the intelligent float circulation with the interior division of dosemotion increases the efficiency of your hide and leather process.



## Characteristics

- The dosemotion is made in stainless steel, that enables best economic designs and developments
- On that score, the dosemotion works with a double cylinder design and intelligent float circulation

## Resultant qualities

- Most effective penetration of hide and leather chemicals
- Most effective temperature and pH value control
- Homogeneous action and distribution over the entire drum
- Safe accessible reduced water and chemical consumption
- No tears and no entanglements with difficult ware
- Shorten processing times



# dosemotion

float processor - state of the art



## Characteristics

- The interior division is based on curved drum paddles
- For loading and unloading the drums are equipped with large pneumatic controlled sliding doors

## Resultant qualities

- Heavy action by low drum speed, 3 - 6 rpm
- More flexible in process development and recipe optimization
- Less electrical power consumption
- Fast and complete unloading, 1½ minutes



## More characteristics

- Admixtures, measurements and water changes by mixing box
- The float circulates over fixed mixing box during drum rotation
- Drum ventilation works several times per revolution
- Spherical roller bearings and helical-bevel gear drive

## More resultant qualities

- Fast and controlled water changes
- Less mechanical fading with high efficiency factor

# dosemotion

float processor - state of the art



	sm 05	sm 07	dm 10	dm 12	dm 14	dm 18	dm 21	dm 30	dm 38	dm 50	dm 63
dosemotion type number	31805	31807	32210	32212	32214	32218	32221	32230	32238	32250	32263
drum ø (mm)	2.100	2.200	2.500	2.500	3000	3.000	3.000	3500	4.000	4.000	4.000
width (mm)	1.500	1.800	2.000	2.500	2000	2.500	3.000	3000	3.000	4.000	5.000
volume (m³)	5.0	7.0	10.0	12.5	14.0	18.0	21.0	30.0	38.0	50.0	63.0
shaved wt (kg)	500	750	1.000	1.250	1.500	2.000	2.400	3.400	4.500	5.600	6.800
green/pelt (kg)	1.200	2.300	3.300	4.000	4500	5.800	6.800	9.500	12.500	16.000	18.500
motor (kw)	5	7.5	11	11	15	15	15	22	30	2x15	2x22

# dosemat 3division

float processor - state of the art

The dosemat 3division - the superior machine for making leather in constant quality. Hides and leather are processed uniformly by the intelligent float circulation system.



## Characteristics

- Perforated inner walls separate the drum into 3 working areas
- The dosemat 3division works with 3 by 3 step float circulation

## Resultant qualities

- Maximum capacity possibilities in same space
- Fast and controlled water changes
- Effective penetration of hide and leather chemicals
- Most effective temperature and pH value control
- Homogeneous action and distribution over the entire drum
- Safe accessible reduced water and chemical consumption
- Shorten processing times
- No tears



# dosemat 3division

float processor - state of the art



dosemat	sd 2.0	sd 2.5	sd 3.0	sd 5.0	dd 7.5	dd 10	dd 12	dd 17	dd 21	dd 28	dd 38	dd 50	dd 63
type number	30820	30825	30830	30852	31207	31210	31212	31217	31221	31228	31238	31250	31263
drum Ø (mm)	1600	1600	1600	2100	2.500	2.500	2.500	3.000	3.000	3.500	4.000	4.000	4.000
width (mm)	1000	1250	1500	1500	1.500	2.000	2.500	2.500	3.000	3.000	3.000	4.000	5.000
volume (m³)	2.0	2.5	3.0	5.0	7.4	9.8	12.3	17.7	21.0	28.8	37.7	50.0	63.0
shaved wt (kg)	350	450	550	900	1.300	1.700	2.000	3.000	3.500	5.000	6.800		
green/pelt (kg)	800	1000	1200	2000	3.000	4.000	5.000	7.000	8.000	11.000	15.500	18.000	21.000
speed (rpm)	7/20	7/20	7/20	4/16	6/12	6/12	6/12	4.5/9	4.5/9	3.5/7	3/6	1.5/5	1.5/5
motor (kW)	5.5	5.5	7.5	11	11	18	18	22	22	37	37	2x22	2x22

# dosemat VG

laboratory and testing drum

Leather is fashion. To design new products is rather expensive. Dosemat VG helps to make new developments sure of success.



Dosemat VG provides production conditions on laboratory scale. This drum type also employs intelligent 3 step float circulation.

The float circulates several times per round via the scoops and mixing vat where dosing occurs. The design of the scoops and their positioning across the entire drum width ensure a uniform treatment of the leather.

The temperature and running duration can also be regulated with the iPControl.



Features of the VG are rounded off with comprehensive innovations ranging from individual processing aids to a fully-automatic system.

# dosemat VG

laboratory and testing drum



number	<a href="#">30215</a>	30220	<a href="#">30231</a>	30239	<a href="#">30245</a>	30257	<a href="#">30268</a>	30276	<a href="#">30292</a>	30316	<a href="#">30321</a>	30326	<a href="#">30340</a>
drum diameter (mm)	<a href="#">800</a>	800	<a href="#">1000</a>	1000	<a href="#">1200</a>	1200	<a href="#">1200</a>	1400	<a href="#">1400</a>	1650	<a href="#">1650</a>	1650	<a href="#">1850</a>
drum width (mm)	<a href="#">300</a>	400	<a href="#">400</a>	500	<a href="#">400</a>	500	<a href="#">600</a>	400	<a href="#">600</a>	750	<a href="#">1000</a>	1250	<a href="#">1500</a>
drum volume (liter)	<a href="#">150</a>	200	<a href="#">315</a>	390	<a href="#">450</a>	565	<a href="#">680</a>	769	<a href="#">920</a>	1600	<a href="#">2100</a>	2600	<a href="#">4000</a>
minimal float (liter)	<a href="#">3</a>	4	<a href="#">4</a>	5	<a href="#">5</a>	6	<a href="#">6</a>	6	<a href="#">7</a>	10	<a href="#">15</a>	20	<a href="#">35</a>
shaved weight (kg)	<a href="#">15</a>	20	<a href="#">32</a>	40	<a href="#">46</a>	58	<a href="#">70</a>	78	<a href="#">92</a>	160	<a href="#">200</a>	260	<a href="#">400</a>
drum speed (rpm)	<a href="#">8/40</a>	8/40	<a href="#">7/35</a>	7/35	<a href="#">6/30</a>	6/30	<a href="#">6/30</a>	5/25	<a href="#">5/25</a>	4/20	<a href="#">4/20</a>	4/20	<a href="#">4/20</a>
motor power (kW)	<a href="#">0.75</a>	0.75	<a href="#">1.1</a>	1.1	<a href="#">1.5</a>	1.5	<a href="#">1.5</a>	2.2	<a href="#">2.2</a>	4	<a href="#">5.5</a>	7.5	<a href="#">9.2</a>
heating (kW)	<a href="#">3.6</a>	3.6	<a href="#">3.6</a>	3.6	<a href="#">3.6</a>	3.6	<a href="#">3.6</a>	3.6	<a href="#">3.6</a>	steam	<a href="#">steam</a>	steam	<a href="#">steam</a>

# doze VGI

laboratory and testing drum

The doze VGI has been specially designed for laboratory use and has set the standard for decades in leather research. The chemical industry, institutes and tanneries value the efficiency and productiveness of this unit.



An unusual characteristic of this machine is the electric heating system. Separated from the float, the heating circuit circulates in a twin drum casing.

This means that even heated drying processes can be realised.



The temperature and running duration can be regulated easily with the IPC control.

Features ranging from comprehensive innovations to a fully-automatic system enable you to meet even the most difficult requirements.

# dose VGI

laboratory and testing drum



number	30503	30508	30509	30515	30520	30531	30539	30545	30557	30568	30576	30592
drum diameter (mm)	400	600	600	800	800	1000	1000	1200	1200	1200	1400	1400
drum width (mm)	200	300	300	300	400	400	500	400	500	600	500	600
drum volume (liter)	25	85	85	150	200	315	390	450	565	680	769	920
shaved weight (kg)	2	7	7	12	16	25	32	36	45	54	62	74
drum speed (rpm)	5/50	8/40	8/40	8/40	8/40	7/35	7/35	6/30	6/30	6/30	5/25	5/25
motor power (kw)	0.1	0.22	0.55	0.75	0.75	1.1	1.1	1.5	1.5	1.5	2.2	2.2
heating (kw)	1	2	3	3	3	4.5	4.5	4.5	4.5	4.5	6	6

# dofe PFI

## parallel colour processor

Realisation and scalability of comparative trials are the key factor when it comes to achieving an effective laboratory result.

The parallel colour unit employs reliable technology and the latest control, adapting to requirements to meet every expectation of a machine utilised for comparative testing.



A drum pair is supplied by a heating circuit, thus ensuring ideal heating conditions for comparative trials. The temperature range is between 20°C and 80°C. Desired and actual values can be controlled separately for each heating circuit.

The effective heating system ensures a maximum difference of only 2° between the float and heating circuit temperature. A sound basis for achieving your test results.



All drums are driven by one electric motor, and each one can be disconnected separately. Motor running and stop times and continuous speed control can be adjusted, enabling additional enhancement of performance.

The direction of rotation reverses after each stop

The PFI is available with 2, 4 or 6 drums and 1, 2 or 3 heating circuits.

Drum Ø: 300mm Drum width: 150mm Drum volume: 10 liters

Motor power: 0.4 kw Including stepless speed control up to 45 rpm

# dosemix

water mixing and dosing system

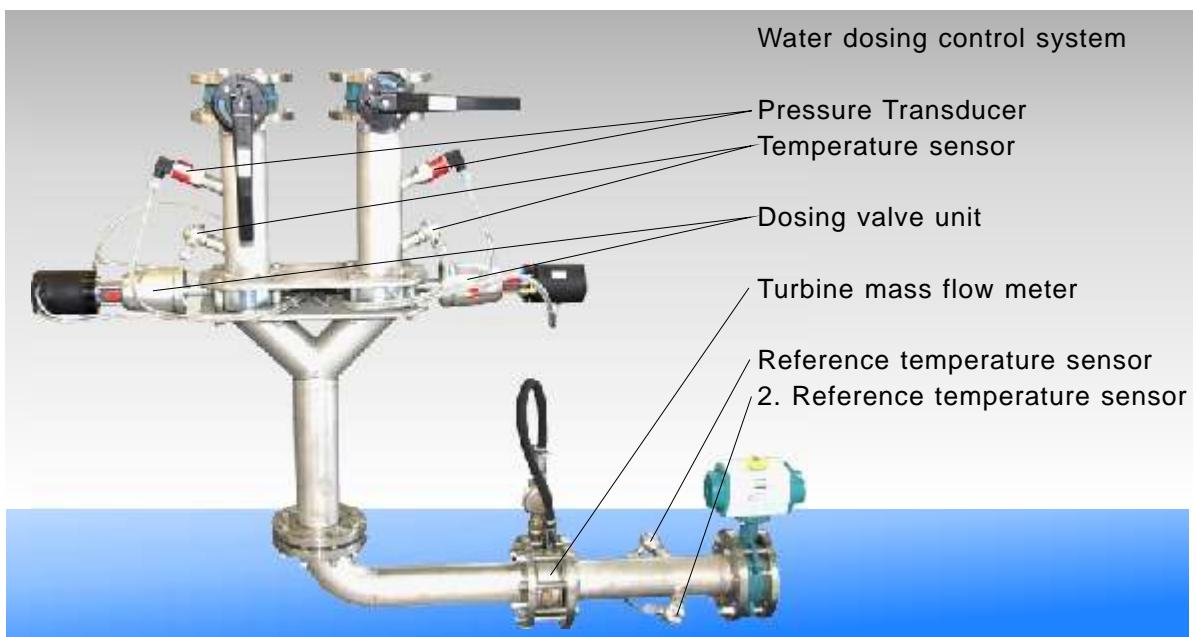
Water, the most important medium of all, plays a decisive role during leather production. It is the ideal solvent for use in the leather process when the correct volumes are utilised at the right temperature.

The Dose water mixing and dosing system sets standards in celerity, precision and operational control.



The system mixes hot and cold water to the specified temperature and conveys correct volume to the preselected consumer.

Water pressure and the intake temperature are transmitted in real time. The computer calculate the correct start valve setting for the independent control valves and realises these.



# dosemix

water mixing and dosing system

The Dose water mixing and dosing system sets standards in celerity, precision and operational control.

Water can be recirculated to the storage tank via a separate valve until the preselected temperature is reached.



The system enables recording of the exact mixing temperature after the medium has travelled the shortest possible distance. The computer then processes this value to achieve a fine correction.

A second temperature sensor ensures that temperature readings are correct. The desired temperature is achieved within a few seconds and the water is directed into the drum.



system number	NW 15	NW 25	NW 50	NW 80	NW 100	NW 125
pipe diameter	1/2"	1"	2"	3"	4"	5"
pressure zone (bar)	0.5-6	0.5-6	0.5-6	0.5-6	0.5-6	0.5-6
temperature zone (°C)	10-90	10-90	10-90	10-90	10-90	10-90
flow rate (bar/l/min)	25	100	500	1000	1500	2000

# chemdos

hide and leather chemical dosing

Established recipes which can be reproduced with precision are the basis for homogenous quality in leather manufacturing.

The chemdos dosing system is fully-automatic liquid dispensing of up to 30 components in a batch(an automatic dosing process), including hot and cold water.



Any chosen number of automatic dosing processes can be entered in the recipe itself and dispensed at the specified time.

Specified mixing ratios for individual components are adhered to exactly, thanks to the separate configuration option available for each dosing valve.



system type	chemdos 150	chemdos 500	chemdos 850	chemdos 1200
capacity (liter)	150	500	850	1200
pipe to dosing valve	1"	1"	2"	2"
standard consumer	6	6	6	6

# chemdos

hide and leather chemical dosing

The chemdos dosing system is fully-automatic liquid dispensing of up to 30 components in a batch (an automatic dosing process), including hot and cold water.



The agitator in the weighing tank ensures that an optimum mix of liquids is achieved. A centrifugal pump then conveys the mixture to its destination.

A purging system subsequently facilitates cleaning of the system and all associated pipes and tanks. Additional dosing systems can be easily integrated in existing plants.



The liquid management system is an additional option that rounds off the chemdos, achieving a safe and efficient production system employing state of the art technology.

# webformula

## recipe and process management

Now and in future an innovative development environment and recipe evolution become the deciding basis for a successful leather product.

The recipe and process management system webformula with an optimised user interface, easy handling and the comprehensive applicabilities improve and amplifies your product evolution.

**Recipes :: Details - Mozilla Firefox**

Administration | Interpretation | Processes | **Recipes** | Batches | Messaging

Logged in as: Daniel Dose | Logout | Alarms | Current Data | Silo-Filllevel | 1 User online

**Quick select**

- 30 Import: schritt 29 und 30 [1]
- 31 Import: schritt 29 und 30 [2]
- 32 [1] Import: schritt 29 und 30 [1]
- 33 [2] alle schritte**
- 34 Test-SS
- 35 testrez
- 36 Sascha Test 10.01.08
- 37 gsdet
- 38 her6456
- 39 [1] Test-SS
- 40 [2] Test-SS
- 41 [1] test-rezept
- 42 [2] test-rezept
- 43 [3] test-rezept

**[2] alle schritte** No.: 33

Created on : 23.04.2007 10:05:41 (MG) Sub recipe : No  
 Last modified : **Not modified** Recipe active : Yes

Standard view | **Extended view** | Dosings

No.	Amount	Chem.	Data
1	100.000 %	Water	Drum Temp: 30.0 °C
2		Wait until	Water dosing in Drum finished
3		Heating on	Drum Up 30.0 °C Starttemp: 0.0 °C Time: 0:00:00
4		Wait	0:02:00
5		Wait	0:05:00
6	100.000 %	Water	Drum Temp: 1.0 °C
7		Wait	0:02:00
8	111.0000 %	Chem1	Drum
9		Drum rotation	Speed: 1 Rtime: 0:01:00 Ptime: 0:01:00
10		Wait	0:01:00
11		Drum stop	
12		Wait	0:03:00
13		Drain	channel: 1
14		Heating on	Drum Up 55.0 °C Starttemp: 5.0 °C Time: 0:00:30
15		Temperature Guard	Min: 20.0 °C Max: 30.0 °C
16		Heating off	Drum
17		Empty tank	Tank: 1 Pumpdt: 0:01:00 Ptime: 0:01:00
18		Rinse tank	Tank: 1 Rinset: 0:01:00
19		Agitate tank	Tank: 1 Agitatetime: 0:01:00
20		Manual ph-measurement	Min: 5.00 Max: 7.00
21		Check	asdfsdfsdasdfsdf
22		# sadsd	
23		Wait	0:04:00
24	111.000 %	Local dosing	
25		Antifoam	0:01:00

### Recipe-administration

# webformula

recipe and process management

## Webformula substructure

- Recipe and process management
- Interpretation of data
- Chemical administration with Cost control
  - Allocation of suppliers
  - Filteroption for chemicaltypes
  - Magazine-code creation
  - Printable list-generation
- Machine administration with
  - All machine types
  - Alarm in realtime
  - All parameter data in realtime
  - Actual silolevel visible
- Chemical supplier administration
- WebFormula user-management
- Extensive configuration menuue

The screenshot shows the 'Processes :: Overview' page in Mozilla Firefox. The interface includes a navigation bar with tabs for Administration, Interpretation, Processes (selected), Recipes, Batches, and Messaging. A sidebar on the left shows 'Dosemat-Overview' with radio buttons for Dosemat 1 through 6. The main content area is titled 'Process - Overview' and contains a table with the following data:

State	Order	Job	Weight	Recipe	Created	Dosemat
	00	lkjpeds	200.0000 kg	[4] test-rezept	07.05.2009 09:43	Dosemat 1
	311a0	kjolsaf	5.0000 kg	spezial-test	06.05.2009 11:11	Dosemat 1
	testix	jsbxx	120.0000 kg	spezial-test	06.05.2009 10:59	Dosemat 1

At the bottom of the interface, there is a footer with 'Support', 'Dose WebControl. Copyright Dose systems AG', and 'Version: 2.05-0005'.

## Process-administration

# iPControl

## machine control system

The ipc control secures constant leather quality. One screen shows all important information like temperature, total running time and step running time.

IPC control can save 20 recipes composed of 500 steps and 30 processes can be entered

### iPControl qualities

- Can be run fully automatic without PC connection
- 20 Main recipes can be stored and edited
- Dependend and decision based recipe run
- Process sequel
- Alarmhandling
- Including preparation-tank control
- Fully customisable to fit all needs
- Comfortable data handling
- Optional barcode scanner
- Optional pH-meter available
- Automatic water orders to Dosemix
- Automatic chemical orders to Chemdos
- Automatic pH-Measurement orders to pH-Check
- Automatic orders to Weigt-Check



All data of a machine (Recipes, PLC-Programm, settings), are stored on an easy interchangeable compact flash card. In the seldom case of a breakdown, the compact flash is inserted into a new IPC and the production can be continued within minutes.

# automation

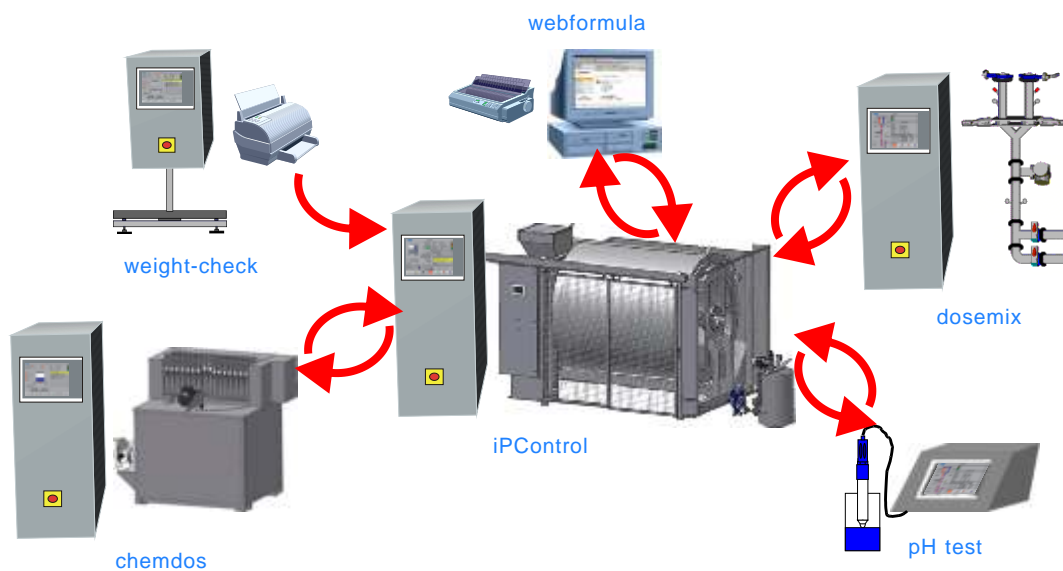
## tannery automation system

State of the art tannery automation that complies to your expectation.

The Automation System has been developed together with leading tanneries of the industry. Safety reliability and ease of use in one package. Open to communicate with existing machinery and peripheral equipment. Visualisation of the production plant with standard web technology.

### Dose automation qualities

- Easy handling
- Reliable soft- and hardware
- Configuration to match your needs
- Quick and easy trouble-shooting
- Minimal spare-part costs
- Complete control of the process
- Data evaluation of all recipe and machine events
- Checks before mistakes happen
- Check all process parameters from any point in the world



<a href="#">webformula</a>	Recipe and process management software
<a href="#">ipcontrol</a>	Machine control for all hide and leather processors
<a href="#">dosemix</a>	Water mixing and dosing control
<a href="#">chemdos</a>	Hide and leather chemical dosing control
<a href="#">pH-test</a>	Control system for measuring and logging of pH-Values
<a href="#">weight-check</a>	Manual weighing system