Product Overview

GERCO® – Kunststofftechnik

Drying, Conveying and more ...

GERCO® – Kunststofftechnik

The factory in Sassenberg

GERCO® Kunststofftechnik is a brand of Scheffer Energy Systems GmbH based in Warendorf in Westphalia. We specialise in the development and production of high-quality peripheral devices for the plastics industry.

In August 2011 we moved into our new 5,000 m² production shops five kilometres away in Sassenberg. The production process was thus integrated into a modern manufacturing structure.

Dear business partner,

with this brochure we would like to give you a compact overview of our product range. Take a look at your leisure at the versatile solutions we have ready to meet your requirements. You have the choice between drying, conveying and dosing systems. Whether for single- or multi-chamber dryers, GERCO® offers you the right solutions for your plastics-processing systems. Whichever product you are interested in, you can be sure that GERCO® products are developed and manufactured with the greatest care. "MADE in GERMANY" is for us not simply a slogan, but also a claim and a motivation. Trust in our experience and expertise, if you are looking for durable products for your customers and for your own business. Rely on the positive experiences of thousands of users who we already number amongst our customers. We want you to be 100% satisfied from the very beginning.

From consultation to planning, and on to installation and commissioning! Quality from the very start!

Put us to the test –
We look forward to it!

Yours, Thomas Scheffer
Managing Director

Table of contents

Granulate dry air dryers

INFO Box

- Single-chamber dryers, 50–800 l
- Drying performance 9–260 kg/h
- Achievable residual humidity 0.02 %
- Compact, light design
- Suitable for mobile use
- Easy cleaning
- Removable granulate tanks

The compact single-chamber dry air dryers stand out for their compact and mobile design. They can be positioned directly next to the processing machine, or completely automated as central dryers. All dryers of this type are equipped with two molecular sieves, in order to ensure continual drying of the granulate. A PLC in the switch cabinet ensures a problem-free process sequence in the dryer. The compact design and good insulation ensure energy-efficient and mild drying of free-flowing plastic granulates. The removable granulate tanks allow easy cleaning, and the possibility of adapting the dryers individually to the drying requirements. The drying volume can also be increased later with the aid of dryer attachments.

Technical data	GTT 50 ES	GTT 101 ES	GTT 201 ES	GTT 401 ES
Unit capacity litres	50	100	200	400
Dimensions H x W x D mm	1550 x 1116 x 906	1450 x 720 x 970	1630 x 900 x 1200	1700 x 1060 x 1320
Weight kg	171	200	320	360
Drying performance kg/h	9–30	18–65	30–120	60–240
Power consumption kW	5.75	7.36	15,3	16.2
Air throughput m^3/h*	70	132	168	210

Multi-chamber dry air dryers

INFO Box

- Multi-chamber dryer 100–800 l
- Drying performance 5–260 kg/h
- Achievable residual humidity 0.02 %
- Compact, light design and mobile
- Individual chamber temperatures
- Easy cleaning
- Removable granulate tanks
- Additional material tanks for sampling

The compact multi-chamber dry air dryers stand out for their compact and mobile design. They can be positioned directly next to the processing machine, or completely automated as central dryers. All dryers of this type are equipped with two molecular sieves, in order to ensure continual drying of the granulate. The good insulation ensures energy-efficient and mild drying of free-flowing plastic granulates. Each individual chamber can be operated with different granulates and temperatures. Due to the standard use of removable granulate tanks, the dryers can be cleaned easily. When fitted with smaller material tanks, the dryer can also be used as a low-volume dryer for sampling or in the laboratory.

Technical data	TTM 2/50 ES	TTM 2/100 ES	TTM 2/200 ES	TTM 2/400 ES	TTM 3/100 ES	TTM 4/50 ES	TTM 4/100ES
Unit capacity litres	2 x 50	2 x 100	2 x 200	2 x 400	3 x 100	4 x 50	4 x 100
Dimensions H x W x D mm	1550 x 1116 x 906	1600 x 1480 x 775	1700 x 1800 x 1200	1700 x 2500 x 1150	1700 x 2500 x 1150	1550 x 1610 x 906	1700 x 2900 x 930
Weight kg	250	360	450	490	485	350	550
Drying performance kg/h*	5–10	10–33	18–65	30–120	10–33	5–10	11–33
Power consumption kW	8,4	11,4	16	16,7	15,5	12,4	19
Air throughput m³/h**	132	168	210	270	210	168	210

*Drying capacity per chamber / **open flow rate

Warm air dryers

INFO Box

- Warm air dryers 50–800 l
- Single- or multi-chamber dryers
- Mobile
- Built-in conveyor equipment

Warm air dryers are used for the drying of non- or only slightly hygroscopic plastics. Their simple and robust construction guarantees their reliable operation and long service life. All dryers of the GTT and TTM series are also available as warm air dryers of the W- or MK series. A special feature of the GERCO warm air dryers is the TF series with conveyor. The warm air dryer transports the granulate to the machine by means of the built-in blower

Dryer attachment system

INFO Box

- Dryer attachment 0.5–82 l
- Drying performance 0.5–62 kg/h
- Achievable residual humidity 0.02%
- Excess drying protection
- Ring-nozzle drying
- Built-in injector feed
- Freely selectable filling quantity
- Large display
- Removable operating panel
- Air and heating performance regulation
- Volume increase possible
- Stainless steel tank

With the dryer attachment system (TAS), all plastic granulates can be dried up to 190 °C. Due to the compact design completely of stainless steel, it is not only attractive, but ideally suitable for industrial use. The modular construction of the drying system allows optimum adaptation to many requirement profiles. When installed on the processing machine, the dryer can be charged automatically via an injector feed (TAS jet).
The dryer operates with de-oiled and dried compressed air at reduced pressure. The connected compressed air is reduced in pressure in the dryer and warmed by a heater. The warmed air is then fed through the plastic granulate to be dried, drawing the humidity from the plastic granulate. The micro-controller controls monitor the drying process. The required air volume is continually monitored and adjusted to the process by a proportional valve and a temperature sensor in the tank. This enables the mild and energy-efficient drying of plastic granulates, and also prevents excessive drying of the material. The large display also allows the processes to be monitored from a distance. If this is not possible, the operating panel can be removed and positioned within reach of the operator. This allows maximum operating convenience, for example in the case of vertical machines.

TAS

TAS Integral Micro

TAS Split Micro

	TAS					TAS Micro					
Technical data	**07 jet**	**12 jet**	**27 jet**	**42 jet**	**62 jet**	**02 ingeral jet**	**04 integral jet**	**07 integral jet**	**02 split jet**	**04 split jet**	**07 split jet**
Nominal tank capacity litres	7	12	27	42	62	2	4	7	2	4	7
* Filling quantity extendible xx litres	3,5–7	6–12	17–27	27–42	47–62	0,5–2	0,5–4	0,5–7	0,5–2	0,5–4	0,5–2
Adjustable filling quantity litres	2,95	4,55	8,62	13,45	19,78	1,5	2,5	4,3	1,5	2,5	1,5
Air consumption max Nm³/h	6	6	6	6	6	6	6	6	6	6	6
Air pressure bar	1150	1150	1150	1150	1150	180	180	180	180	180	180
Power consumption W	680	885	885	1150							
Height with integrated feed	630	630	835	835	1100	346	484	698	346	484	696
Height mm	230	230	280	350	350	258	258	258	ø 204	ø 204	ø 204
Width mm	337	387	437	507	507	350	350	350			

* The volume of the dryer can also be increased with the aid of an extender.

Small granulate and vacuum suction conveyor units

INFO Box

- Single or twin conveyor units
- Feed performance 50–1000 kg/h
- Feed distance 5–30 m
- Feed height max. 5 m
- Stainless steel tank

GERCO conveyor units are suitable for the transport of all free-flowing plastic granulates. They can be used individually or for the automation of our dryers. The integrated micro-controller controls monitor the transport process and the filter cleaning, and allow the connection of a two-component separator. With the separator, regenerate can be added to the new material. The conveyor units consist of a stainless steel conveyor tank with different volumes. The vacuum is created by an integrated AC blower or by an external DC blower. The conveyors of the ZSF series can be used for the transport of all plastic granulates. The units are equipped with a side-channel compressor and are used for the automatic filling of two plastic processing machines.

Technical data	GKS 50	VSF 101	VSF 151	VSF 251	VSF 501	VSF 1000	ZSF 151	ZSF 251
Dimension ø x H mm	ø 170 x 490	ø 230 x 725	ø 230 x 576	ø 230 x 576	ø 280 x 895	ø 320 x 1100	ø 230 x 576	ø 230 x 576
Blower unit W x D x H	X	X	365 x 370 x 650	365 x 370 x 650	365 x 370 x 650	365 x 370 x 650		
Weight kg	8	12	26	29	29	29	2 x 8	2 x 8
Capacity litres	2	8	8	8	20	50	2 x 8	2 x 8
Feed performance kg/h	50	100	150	250	500	1000	150	150
Feed height m	2	3	5	5	5	5	4	4
Feed distance m	5	10	15	20	20	30	15	15
Operating voltage V	230	230	3 x 400	3 x 400	3 x 400	3 x 400	3 x 400	3 x 400
Frequency Hz	50	50	50	50	50	50	50	50
Power consumption kW	0.85	0.95	1.5	2.2	2.2	5.5	1.5	2.2

Injector conveyor units, granulate air conveyors

INFO Box

- Injector conveyor units
- Feed performance 40–30kg/h
- Feed distance 5–30 m
- Feed height 3 m
- Stainless steel tank
- Wear-free feed

The conveyor units of this series operate on compressed air. By reducing the pressure of the compressed air via specially-designed injector nozzles, a vacuum is created, which is used for the transport of the plastic granulate.

GPF 01

GDF uni

Technical data	GPF 01	GDF mini	GDF uni	GDF uni 5
Dimensions Ø x H mm	200 x 530	210 x 330	Ø 170 x 635	Ø 348 x 640
Weight kg	2,5	4	9,2	11
Capacity litres	2	2	2	5
Feed performance kg/h	40	40	250	300
Feed height m	2	3	3	3
Feed distance m	5	5	30	30
Operating voltage V	230	230	230	230
Frequency Hz	50	50	50	50
Power consumption VA	50	15	10	10
Hose connection diameter ø mm	30	30	40	40

Modular multi-chamber dry air dryers

INFO Box

- Modular multi-chamber dryers 30–6000 l
- Drying performance 6–1200 kg/h
- Achievable residual humidity 0.02 %
- Round granulate tanks

These dry air dryers offer a wide application range due to their modular construction. The drying tanks of up to 100 litres can be either fitted direct on the intake shaft of a processing machine or, as illustrated, operated as a central unit. All dryers from 200 litres are supplied on a frame. The drying tasks are of stainless steel, and are equipped with a sight-glass. The good insulation of the tanks enables efficient and economic drying. Dry air generators are available with air throughputs of up to 2000 m³/h and tank volumes of up to 6000 litres.

Technical data	TLE 3	TLE 6	TLE 28	TLE 40	TLE 55	TLE 65	TLE 85
Tank capacity litres	30–100	80–200	800–1000	1200	1500	2000	2500
Height mm	850	900	1600	2100	2100	2100	2100
Width mm	330	400	550	800	1200	1200	1200
Depth mm	750	800	800	1000	1800	1800	1800
Weight kg	45	60	330	380	750	850	900
Drying performance kg/h	6–20	20–40	90–170	130–250	150–300	200–400	250–500
Operating voltage V	230	3 x 400	3 x 400V	3 x 400V	3 x 400V	3 x 400V	3 x 400V
Power consumption kW	2.8	5.8	14.5	22.3	29.5–36.5	34.5–42.5	40.5–40.5
Air throughput m³/h*	30	60	280	400	550	650	850

Volumetric dosing units

INFO Box

- Volumetric dosing unit
- Tank volume 7–40 litres
- Dosing peformance 0,003–395 kg/h
- Microprocessor control

The volumetric dosing units of the type GVD are suitable for the production of granulate / master batch mixtures in the range of 0.003–395 kg/h. The design and modular construction ensure both easy operation and quick cleaning. The unit consists of the basic module, onto which are flanged the tank for the plastic granulate and the dosing unit. The controls are located in a separate housing. The digital display allows the easy setting of the dosing ratio. The GVD is suitable both for injection-moulding operation and for use in extrusion systems. For complete automation of the unit operation, the unit can be charged by hopper loader.

Technical data	GVD 25	GVD 50	GVD 1000
Tank volume litres	7	12	40
Dimensions H x W x D mm	350 x 300 x 500	472 x 270 x 635	1000 x 365 x 705
Weight kg	18	20	38
Dosing performance in kg/h	0,003–20	0,003–180	0,5–395
Power consumption W	50	50	920
Controls	Mikro-processor	Mikro-processor	Mikro-processor

Automatic Removal Robots

INFO Box

- Max. removal weight 1000 g
- Stroke 400 mm–700 mm
- Simple touch operation
- Solid design

Automatic removal robots or sprue pickers are pneumatic grappler systems for the removal of injection moulded articles or sprue from the processing machine.

Technical Data	HS 500 S	HS 500	HP 700
Vertical stroke Y in mm:	400–450–500–550	400–450–500–550–600	550–600–650–700–750
Ejection stroke X in mm:	0–50	0–50	0–80
	adjustable speed	adjustable speed	adjustable speed
Transversal stroke Z in mm:	400–450–500–550	400–450–500–550–600	550–600–650–700–750
Swivelling axis:	15–90° min.	0–90° min.	0–90 ° min.
Swivelling angle:	50°	50°	50°
	adjustable speed	adjustable speed	adjustable speed
Removal weight incl. grappler in g:	500	500	1000
Total cycle in s	approx. 3,5	approx. 3,5	approx. 4,5s

Performance overview

				Dryer Size litres									
				7	12	27	42	50	62	200	400	800	1000
Material **		Time	Temp. C°	Dryer capacity kg/h									
ABS	Acrylnitril-Butadien-Styrol	2–3	80	2	3	6	9	11	13	43	87	173	217
LCP	Flüssigkristallpolymere	4	150– 160	1	2	4	7	8	10	33	65	130	163
PA 6	Polyamid 6	4	80	1	2	4	7	8	10	33	65	130	163
PA6.6, 6.10	6.6, 6.10 Polyamid 6.6, 6.10	3–5	80	1	2	4	5	7	8	26	52	104	130
PA 11,12	Polyamid 11/12	4–6	80	1	1	3	5	5	7	22	43	87	108
PAEK	Polyaryletherketon	4	150	1	2	4	7	8	10	33	65	130	163
PAEK-HT	Polyaryletherketon Hochtemp.	3	180	2	3	6	9	11	13	43	87	173	217
PAI	Polyamidimid	3	180	2	3	6	9	11	13	43	87	173	217
PBT	Polybutylenterephthalat	2–3	120	2	3	6	9	11	13	43	87	173	217
PC	Polycarbonat	2–3	120	2	3	6	9	11	13	43	87	173	217
PC/ABS	PC/Acrylnitril-Butadien-Styrol Blend	2–3	100 – 110	2	3	6	9	11	13	43	87	173	217
PC/PBT	PC/Polybutylentherephthalat Blend	2–4	105 – 115	1	2	4	7	8	10	33	65	130	163
PC/PETP	PC/Polyäthylentherephthalat Blend	2–4	105 – 115	1	2	4	7	8	10	33	65	130	163
PEEK	Polyetheretherketon	2–3	150	2	3	6	9	11	13	43	87	173	217
PEI	Polyetherimid	3–4	150	1	2	4	7	8	10	33	65	130	163
PEK	Polyetherketon	4	160	1	2	4	7	8	10	33	65	130	163
PESU	Polyethersulfon	3–4	120	1	2	4	7	8	10	33	65	130	163
PET-a	Polyethylenterephthalat (amorph)	3	120	2	3	6	9	11	13	43	87	173	217
PET-c	Polyethylenterephthalat (kristallin)	6	170	1	1	3	5	5	7	22	43	87	108
PETP	Polyethylenterephthalat	3	120	2	3	6	9	11	13	43	87	173	217
PI	Polyimid	2–3	120	2	3	6	9	11	13	43	87	173	217
PMMA	Polymethylmethacrylat	2–3	80 – 100	2	3	6	9	11	13	43	87	173	217
POM	Polyoxymethylen, Polyacetal	2–3	100	2	3	6	9	11	13	43	87	173	217
PPA	Polyphthalamid	6	80	1	1	3	5	5	7	22	43	87	108
PPE	Polyphenylenether	3–4	110 – 120	1	2	4	7	8	10	33	65	130	163
PPO	Polyphenylenoxid	2	110	2	4	9	14	16	20	65	130	260	325
PPS	Polyphenylensulfid	3–4	150	1	2	4	7	8	10	33	65	130	163
PPSU	Polyphenylsulfon	2.5	150	2	3	7	11	13	16	52	104	208	260
PS	Polystyrol	1–2	80	2	4	9	14	16	20	65	130	260	325
PSU	Polysulfon	2–3	120 – 135	2	3	6	9	11	13	43	87	173	217
PUR	Polyurethan	2–3	90 – 100	2	3	6	9	11	13	43	87	173	217
SAN	Styrol-Acrylnitril	2–3	80	2	3	6	9	11	13	43	87	173	217
TPE	Polyesterelastomer	2–3	110	2	3	6	9	11	13	43	87	173	217
TPU	thermoplastisches Polyurethan	1–2	100 – 110	2	4	9	14	16	20	65	130	260	325

** All data are appoximate values for unlubricated air dryer. The drying recommendations of the material manufacturers are to be considered! Fillers increase spezf. Density. Bulk density kg/l = approx. 0.6 x density g/cm³.

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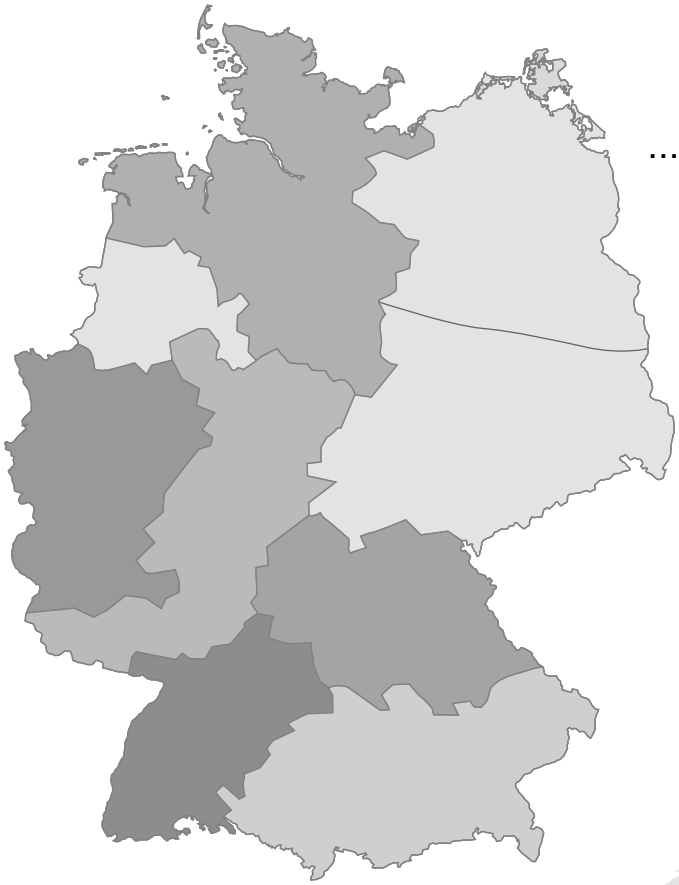
Drying, Conveying and more ...



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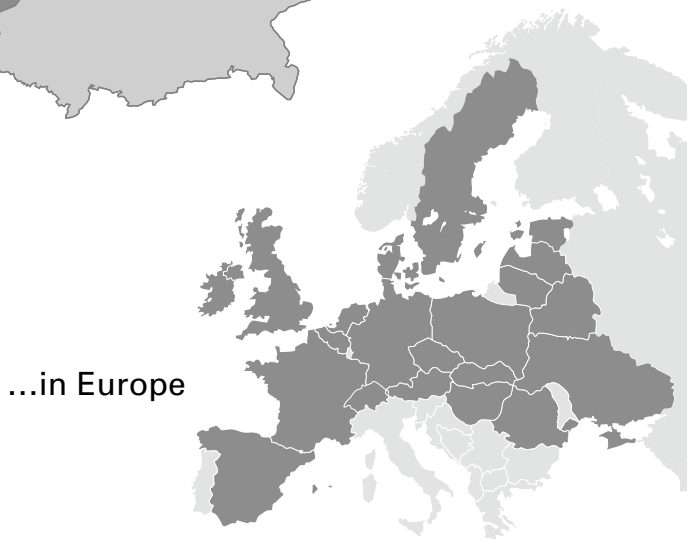

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