

gamma.line

Powerful and reliable for
offset presses



gamma.d

Advantages at a glance:

- High precision dosing, measuring and control technology
- Highly flexible configuration options
- Very reliable
- Stable dampening solution



› gamma.d for dampening solution preparation for offset printing

Dampening Solution Circulator

Printing companies throughout the world that use the gamma.d line of dampening solution circulators benefit from technotrans' 50 years of engineering experience in the field of liquid technology for offset printing applications.

The gamma.d combines a sound design with maximum flexibility to fulfill the various special requirements of web offset presses.

The pump system with sealless plunger pumps can optionally be equipped with one standby pump and up to two additional feed pumps. This guarantees an optimum supply of the dampening units connected and a high level of operational safety.

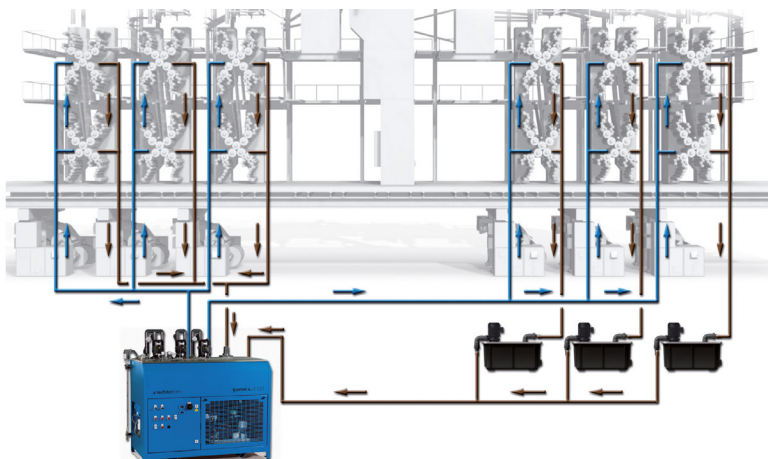
Four different tank sizes, reaching from 230 to 590 litres, allows the system to be individually adapted to

the specific press requirements which can vary to a high degree, especially in the case of web presses for newspaper printing.

For dosing of dampening solution additives the fluidos dosing unit can be integrated. It works without any external power supply, simply driven by water pressure. It is the well-proven standard option for dosing the dampening solution additives.

fluidos can also be supplied in a double version, for dosing additives and alcohol substitutes, as a back up unit, or to increase the dosing capacity.

On heatset presses with alcohol dampening, it is possible to specify either the alcocontrol alcohol stabiliser with density measurement system, or the alcosmart DSP with its automatic zero calibration system and its precise IR gas sensor system.



› The illustration shows a typical dampening solution circuit of a newspaper press, with two separate feed pumps ensuring the individual supply of two press sections, and a gravity return flow of the dampening solution without an intermediate tank or with pre-filter intermediate tanks.

gamma.c

Advantages at a glance:

- Space-saving and powerful solution
- Less installation work, due to common connections for cooling water connection and power supply
- Only one interface for data connection to press system
- Electric heater preheats the system prior to the start of production and reduces waste copies



- › gamma.c combination unit for dampening solution preparation and ink unit temperature control for offset printing

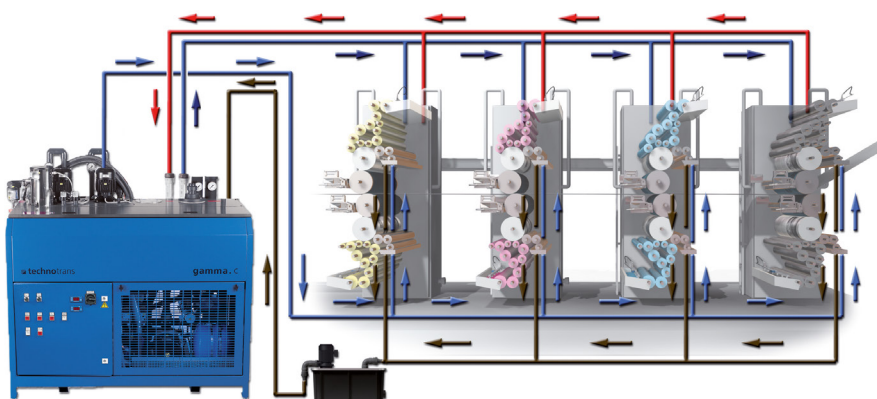
Combination Unit

The gamma.c combination unit is based on the design of the gamma.d and offers space saving yet powerful dampening solution circulation and ink unit temperature control.

To allow maximum flexibility the gamma.c unit can be configured using the same options concerning additive and alcohol dosing, unit control and filtration as available for the gamma.d series.

Cooling is ensured by a water-cooled refrigeration unit for the dampening solution circuit and a cooling water/temperature control water heat exchanger for ink unit temperature control.

Both systems are connected to the external cooling water supply system via a common connection.



- › For use with spray dampening systems technotrans offers a special line of dampening solution circulators. The sd. line can be configured to meet various requirements and gives great operational safety and full access to the quality of the dampening solution making sure critical parameters are easy to control.

Configuration Options

Configuration Options

Depending on individual needs gamma.d as well as gamma.c can be optionally equipped with

different measurement, control, and dosing components.

Dosing-Systems



fluidos

- › no electrical power required
- › robust and maintenance-free
- › additives dosed proportionally to amount of water
- › double fluidos for dosing further additives



digodos.p

- › reproducible accuracy of 0.1 Vol.%
- › specified setpoints via multicom or console
- › consumption monitoring and data logging of water and additives
- › high operational dependability, free of elastomer

IPA-Measurement and control technology



alcocontrol

- › proven and robust design
- › density measurement through float system
- › permanent data logging via inductive sensor
- › fully automated IPAcontrol and empty alarm



alcosmart DSP opt

- › Integrated detergent recognition (A1/A2)
- › unaffected by impurities due to contamination or additives
- › automatic zero calibration ensures low maintenance
- › IPA control range from 0–15 Vol.%, accuracy 0.5 Vol.%

Conductivity and PH measurement

pH measurement is an important instrument that indicates incorrect additive dosage or contaminants from the printing process, such as ink, paper, or washing agents.

Inductive pH measurement with an accuracy of $\pm 50 \mu\text{S}$ takes place within a range of 100 – 5000 μS . The calibration-free conductivity probe requires minimal maintenance.

Power drain

To make cleaning the unit and changing the dampening solution more easy, gamma.d units can be equipped with a pump for rapid and complete draining of the tank content into an external vessel.

Hot water washing device

reduces biological contamination...

Efficient cleaning of units and alcohol-free dampening solution systems, is supported by the integrated hot water washing device of the gamma.d.

It cleans the unit or the entire system with fresh water of about 60°C/140°F or alcohol-free dampening solution.

Hot water loosens the typical ink and paper residues much better than cold water, reducing biological contamination with lasting effect and minimised cleaning.

gamma.line Filtration system

Filtration system

The quality of the dampening solution used has a direct effect on the stability of the printing process. Especially web offset applications have high requirements to the filtration quality. For this reason, the filter mat of the gamma.d can optionally be replaced by a softflow filter

bag. The softflow offers improved filtration quality and a notably larger filter surface, compared to standard filter mats. This leads to an increased dampening solution lifecycle.



› technotrans filter mat

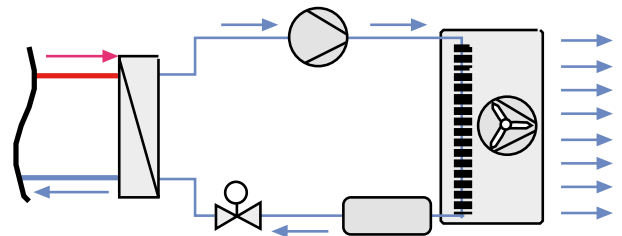


› technotrans softflow

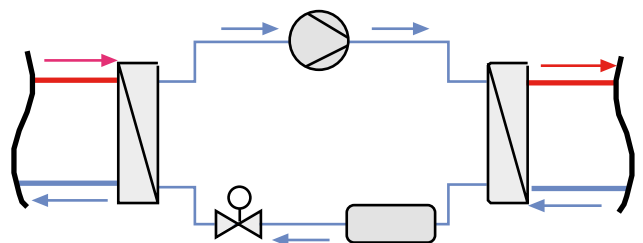
Types

Three different types of refrigeration units can be supplied for the gamma.d line.

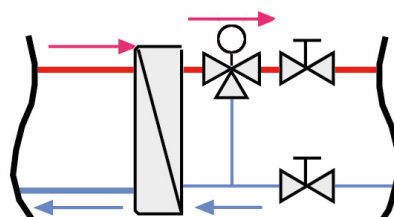
With an integrated, air-cooled refrigeration unit, designed for safe operation, even at high ambient air temperature levels. Available for models gamma.d 80 to 200.

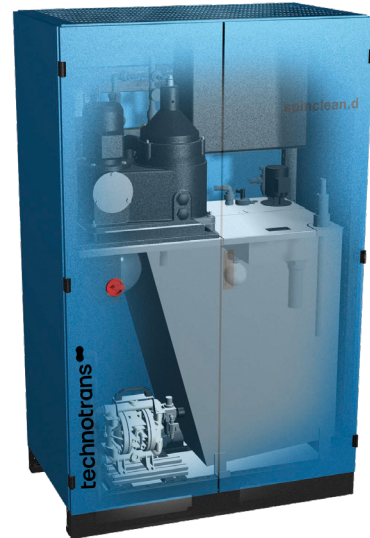
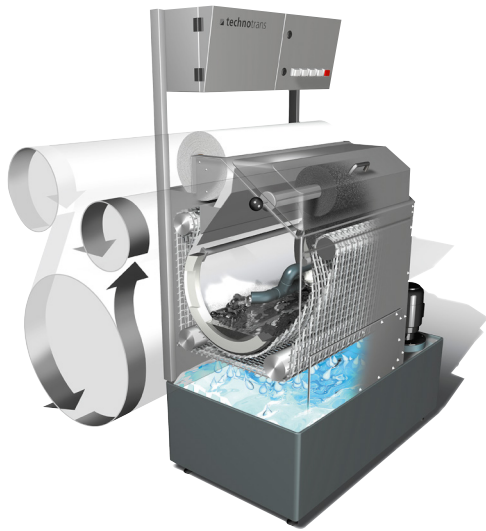


With an integrated, water-cooled refrigeration unit, for connection to an external cooling water supply system with in-feed temperatures of 10 °C/50 °F min. to 27 °C/81 °F max..



Connection to an external coldwater supply system with an in-feed temperature of 8 °C/46 °F or lower.





- › left picture: ring band filter hydroflow
- › right picture: spinclean.d with centrifuge

Extremely high output

Large filter surface area or centrifugal force
The capacities of the web offset printing machines require more dampening solution and, consequently, more cleaning capabilities.

The hydroflow ring band filter is fitted as main filter in the dampening solution return flow from the printing unit. The filter ensures cost-effective separation of the considerable quantity of contaminants. The fully automatic hydroflow saves on intermediate tank filter mats which may need daily replacing. The subsequent main filter stage of the dampening solution circulator can be equipped with a finer filter for smaller particles.

This solution for efficient filtration is particularly convincing since it does not require any filter material at all. The powerful centrifuge in the spinclean.d auto model optimises density differences between usable liquids and contaminants. The result: perfect cleaning with high output, allowing the separated dampening solution to be reused in the circuit.

The type of paper used in web offset presses is normally of a lower quality than in sheet-fed printing. One of the consequences is considerable contamination by ink residues and paper dust, compounded by the speed of the machine. Maintenance becomes expensive and the costs to buy and dispose of the dampening solutions exorbitant.

The spinclean.d also functions with a bypass to the dampening solution circuit. This machine is a good example of how the initially high investment in a solution quickly pays off considering the high volumes and elimination of consumables.

Filtration system

Advantages at a glance:

- High filtration quality
- Reduced filter material consumption and filter costs
- Clean dampening solution circuit increases machine availability and improve print quality
- Reduced disposal costs
- Reduced cleaning effort in the dampening solution system
- No consumables required due to centrifugal force
- Improved dampening solution quality leads to a more stable printing process