

Pole Position



westermann druck



OLD SCHOOL — NEW CLASS.

Things are similar in the top echelons of motor racing. We live according to our traditions, yet we are never standing still. We draw upon our experience to further innovation. And we leave our imprint on reality through the progress we achieve. All for the same objective: to be the best we can.

About us

Since 1838 we have earned a reputation as a leading publisher of textbooks and cartographical publications. These account for only part of our publishing profile, however. That we can do much more is something our customers in the advertising, publishing, public and industrial sectors experience every day. We don't need much to make our case. Just our work.

What we can do for you

What we are able to offer is easily summarized: everything. From the initial design concept to the finished product, from printing and binding to the most modern packaging and shipping systems. In other words, you can expect a "full-service pit stop."

Our extensive service capabilities include:

- Professional processing of your data in the prepress stage
- Four sheet-fed offset presses with from 2 to 8 colors
- High-quality web offset press
- Printing
- Our own bookbinding and print processing services

That we are the right partner for your projects is amply demonstrated by our forward-looking design concepts, our innovative technical equipment, our highly-motivated staff and, most clearly, by **superior publishing results** as the culmination of our work together.



The secret of our success

"Our modern machinery reflects our intelligent approach to publishing. The result is a large variety of solutions. And an optimum product, produced quickly, powerfully, and on time. With the kind of service that opens up new perspectives. Every day. Until you have the finished product in your hands."

What we can do for you

Three hundred highly-skilled employees work virtually around the clock to fill your orders, reliably and creatively. The ideas they come up with in the process are often astonishing.

And where the process ends for other publishers our service is just beginning. A case in point is **aboplus**, our complete subscription management service that even includes payment reminders. Or **druckplus**, which takes catalogues produced for you directly to the Internet. Just as in a racing stable, we have specialists working for us who possess a perfect command of every aspect of their work.

Your success is our goal

For the future

If you would like to know more about us, simply call us for an appointment. We would be happy to pay you a visit or invite you to visit us. Or you may request our extensive informational material. We can provide you with everything from brochures on print, subscription and distribution services to the technical specifications for data delivery, guidelines for loose inserts, and descriptions of our production equipment.

"Nothing means more to us than your needs. We want you to be pleased — with us and with the result of our work together. All the way to the chequered flag."

"Creativity is not reflected in the usual and ordinary. Creativity is reflected in the willingness to look for new solutions. For the unique and unmistakable. For your projects."

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Prepress

- Data transfer via ISDN (Leonardo): (0531) 708-767 and -768; FTP server; e-mail: westermann_druck@westermann.de
- Data processing with a Mac or PC
- All current programs and system environments
- Computer-to-plate (Lüscher)
- Computer-to-film (Hercules Pro)
- EPSON 4800 digital proofer
- 1 drum scanner (Linotype)
- 1 flatbed scanner (Linotype)
- 2 flatbed scanner (EPSON)
- Signa and One Vision impositioning stations
- Digitization of printing films
- Data management and maintenance
- Text and image databases

Sheet-fed offset

- 1 Eight-color press – Heidelberg III-b 72 x 102 cm
- 1 Five-color press – Heidelberg III-b 72 x 102 cm + dispersion coating unit
- 1 Four-color press – KBA 162 112 x 162 cm
- 1 Two-color or black & white press – Heidelberg III-b 72 x 102 cm

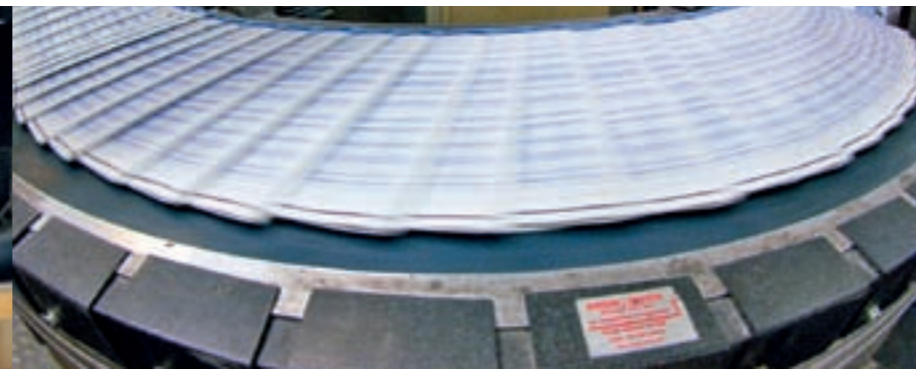
Web offset

- 1 LITHOMAN IV with 4 double printing units and intermittent gluing (max. 32 24.5 x 31.5 cm pages in one pass)
 - 1 ROTOMAN C with 5 double printing units and gluing (max. 16 24.5 x 31.5 cm pages in one pass)
 - 1 ROTOMAN D with 4 double printing units, intermittent gluing (max. 16 24.5 x 31.5 cm pages in one pass; can be coupled with the ROTOMAN C for 32 pages) and electrostatic remoistening unit
- All rotary presses with rotary trimmers



Bookbinding and print processing

- 1 Program cutter
- 4 Combination folders, 78 x 116 cm
- 1 Folder, 42 x 64 cm, with gluing unit
- 1 Postcard gluing machine for accurately aligning and affixing postcards and product samples
- 1 Collating machine, 15 stations
- 4 Automatic sewing machines
- 1 Kolbus book production line
- 1 Perfect binder with 24 stations, two-up processing, insert packaging system with 4 feeders and 1 + 3 insertion capability, postcard gluer
- 1 Saddle stitcher with 6 feeders, three-cutter, compensating stacker
- 1 Saddle stitcher with 10 feeders and cover feeder, three-cutter, compensating stacker, insert packaging system with 4 feeders, postcard gluer
- 2 Address printing units for EDP labels with package tracking
- 1 End sheet gluing machine for gluing sheet parts and postcards
- 1 Book casing machine
- 1 Embossing press
- 4 Shrink wrapping machines
 - Various auxiliary machines for producing periodicals and books
 - Shipping service



Color management

PSO – for optimal color fidelity

Sooner or later everyone is confronted with printed products whose colors are strikingly different from those in the proofs. Color values turn out to be a relative matter – with frustrating consequences. An absolute standard, Process Standard Offset (PSO), provides a remedy through a sequence of minutely regulated and optimized operations. The entire process is controlled and monitored according to international standards. It makes precise color accuracy possible, even when the most diverse printing companies are involved in production. westermann druck GmbH has been PSO-certified for the prepress and press stages since 2006.

Further information is available on the Internet at www.psoinsider.de.

The advantages of PSO

- Colors in the printed product match the proofs approved by you as accurately as possible, saving you the expense of color corrections.
- Certified printing companies work according to internationally uniform standards.
- You may come in for a printing inspection if you want to – but you don't have to. In any event you save time.
- Reprints will always match the colors in the initial print run.
- The optimized production steps result in considerable time savings.



Environmental protection

FSC and PEFC – for the sake of the environment.

The time has come to accept the ecological challenges our society faces. The threat to our forests is not the least of these challenges. Annual paper consumption in Germany has increased to 234 kilograms per capita (2004)*. The problem is not so much one of forestry management as it is of production methods that are not compatible with maintaining the health of the forests.

In the interest of protecting and maintaining our forests in the long term, westermann druck GmbH has been FSC- and PEFC-certified since 2006. These seals guarantee that high ecological and social standards are maintained through our entire production chain. This means, for example, that such devastating measures as clear cutting and pesticide use are avoided entirely and the diversity of species is preserved.

Certification requires careful scrutiny of the origin of the wood we use, which is carefully kept separate from other types of wood throughout production. Every stage of our production processes conforms one hundred percent to an ideal – that of a healthy forest.

Further information is available on the Internet at www.fsc-deutschland.de

Our certificates:



*Source: www.greenpeace.de

Basic requirements for data delivery

Data type	PostScript level 3
Open data	Subject to consultation
PDF	Distiller, version 5.05 or higher, or comparable quality Please contact us for Distiller settings.
Image formats	EPS, TIFF, JPEG. Macintosh or PC for all formats
Other formats	Subject to consultation
Resolution	Color images, 305 dpi Grayscale images, 305 dpi Bitmaps, 1200 dpi
Document pages	Double page layout with 3 mm bleed. For brochures, disregard cutting edge
Booklet production	Take reduced page size of the inner sections into account for layout. Net format to type area 3 mm. Background is in the bleed area.
Delivered film	Deliver film to be digitized 5 working days before start of imaging or the plotting date.
PostScript pages	Individual pages; portrait. Chronological pagination from p. 0001–000X
Ps_filenames	No diacritics, special characters or spaces. For word delimiting use only the underline character (“_”).
Paper format	Net format plus 20 mm.
Separation	Composite (not separated). If DCS data are included, prepare separate data. Do not process JPEG and DCS in a single file.
Register marks	Centered; length 24 pt; offset 6 pt.
Special colors	For four-color production convert to process colors.
Special formats	E. g., envelopes; inserts; double gate fold, etc. The documents must be laid out in full size as one page (not as double pages).

Inside pages alternate with outside pages.

Reproduction

1. Offset production

Screen ruling

60 lines/cm. Deviations are allowed for laser screening when technically justified. The standard reference is 60 lines/cm. If screens with higher or lower screen rulings are used, then gradation must also be adjusted, as higher or lower dot gains will occur.

Dot gain/ printing characteristics

Dot gains are measured in the 40 % and 80 % patches in the control strip. The desired dot gains according to BVD/FOGRA standards for print proofing and production printing are to be maintained.

Paper grade 1

All glossy and semi-matt coated paper from 70 g/m²*

Colors	Full-tone density	80 %	40 %
Black	1.90 – 2.00	14 %	19 %
Cyan	1.50 – 1.60	12 %	16 %
Magenta	1.50 – 1.60	12 %	16 %
Yellow	1.35 – 1.45	12 %	16 %

Paper grade 2

All coated paper from 70 g/m²*

Colors	Full-tone density	80 %	40 %
Black	1.80 – 1.90	16 %	22 %
Cyan	1.45 – 1.55	14 %	19 %
Magenta	1.45 – 1.55	14 %	19 %
Yellow	1.35 – 1.45	14 %	19 %

Paper grade 3

All uncoated paper including pigmented/satin paper

Colors	Full-tone density	80 %	40 %
Black	1.90 – 2.00	18 %	25 %
Cyan	1.50 – 1.60	16 %	22 %
Magenta	1.50 – 1.60	16 %	22 %
Yellow	1.35 – 1.45	16 %	22 %

* Matt-coated paper with a paperweight of 70 g/m² or higher is classified as either grade 1 or grade 2 paper according to its print behavior.
Dot gain tolerances for a press proof are ± 3 % in the 40 % patch, ± 2 % in the 80 % patch. Dot gains for colors C, M and Y may differ by a maximum of 4 % in the 40 % patch.





Color description	The color description is to be copied in directly on the register mark, according to DIN 16549, Part I: B=black C=cyan M=magenta y=Yellow; special colors are written out. Further descriptions (image No., page number, short title) are indicated separately. Writing on the black leader must be at least 5 mm from the lower edge of the image.
Trapping/trim	3 mm
Print marks	Like register marks, corner, folding and cut marks must begin at the correct angle and exactly at a distance of 2 mm from the end format. For delivery of individual images, 5 mm. Print marks may have a maximum line weight of 0.1 mm.
Patches and line elements	Full-tone black areas should have a 40% cyan undercolor. Negative text must be adequately filled in cyan. If backgrounds contain colored text, then the darker ink is to be applied sharply, the lighter ink over- or under-cut as required.
Under color removal (UCR)	The maximum total area coverage for the four colors should be between 280% and 310% in the neutral image areas. Gray component replacement with UCA (under color addition): <ul style="list-style-type: none"> The maximum total area coverage for the four colors should be between 130% and 250% in the neutral image areas, which corresponds to a UCA of 10% to 50%.
Film masking	This should always be done on the non-emulsion side of the film.
Fog	Fog max. image density 0.06
Coverage	Offset reproductions must have a minimum black density of 4.0. A density of 4.5 is recommended. Dotted lines and screen dots in the image elements must have sharp edges. Contact prints must be made from etched films or films with screen dots. Screen tone values below 3% cannot be transferred to the printing plate and are therefore not to be used. Screen dots must have sharp edges to prevent transfer losses.
Scope of delivery	Proofs or press proofs for delivery are to be placed into a bag, page-wise or double page-wise and with layout and reproducible masters. Also required in each case is an uncut proof sheet with all copy and color control strips for copying and printing. Smooth, reverse-reading positives, unbent and without scratches or blemishes, are to be delivered as the end film, placed page-wise or double page-wise into a bag with the imprimatur. All originals or first or second copies are to be delivered in a second bag. Safety negatives or intermediate or copy films are to be sent along as well if specifically requested. All films are to be delivered with perforation (Kodak, if possible).
Archiving	The customer will be given access to data banks if requested.

Position of the reproductions

2. Assembly for the press proof

Positioned as accurately as possible according to impositioning scheme to be provided by westermann druck.

Print control strip

Original control strips are to be used in all colors for copying and printing. These control strips are to be compatible with the BVD/FOGRA standards.

3. Plates and copies

Sheet assembly

Sheet assembly is to be prepared for machine accuracy according to the imposition scheme to be provided by the printers. In the event this is not possible, the reproductions are to be mounted in the direction of travel.

Press proof plates, copy control

Check with FOGRA PMS I or UGRA wedge.

The press proof and printing plate copies must lie within the standard nominal microline range (standard K value range), which depends on the resolution of the plate. Copies are to be kept so that, in the K patch, the positive line elements at ① are lightly visible from step 12 and fully visible from step 15, while those at ② are lightly visible from step 15 and fully visible from step 20. All print plates are to be copies similarly.

Positive plates	①	②
Resolution	up to 8 µm	over 8 µm up to 12 µm
Range	12 – 15 µm	15 – 20 µm

Agreements between the customer and the reproducer to the effect that fine halftone dot areas are to be preserved for subjects such as porcelain or foam are exceptional cases that depart from the standard. Because these reproductions require an increased tonal range, a copy with 8 µm to 10 µm is necessary for print proofing and production printing. In addition, continuously mounted films are required.

Press proofs

4. Press proofs

The colors of the European Color Scale according to DIN 16539 are used for printing.

Printing substrates

The use of production paper is optimal. If this is not possible, press proofs are printed on similar paper according to the BVD/FOGRA color standards. A precise description of the paper is to be noted on the proof.

Color sequence

Black, cyan, magenta, yellow

Inking, measurements

Inking must be kept constant across the page within the tolerances listed in the tables under "Dot gain/characteristic print curve." The color control elements (Fogra values) consist of a full-tone patch, an 80% halftone patch, a 40% halftone patch, a screen ruling of 60 lines, with black, cyan, magenta, yellow, etc., in alternation. Technically justified deviations in halftone patch percentages are noted on the control strip.

Inking on the proof is guided by the applicable patterns in the „inking standards“ ring binder and is adjusted visually.

For special colors the inking is adjusted so that the solid tones are well covered. Variations in full-tone densities across the sheet must not exceed 8%.

Densitometer

The GRETAG D19C is used to determine the values.

Number of proofs

Six complete proofs, unless another quantity is specified.

The proof scale must include single prints and color combinations with control strips as well as any notes concerning special colors. For achromatic colors a combined printing of the three chromatic inks is to be added to the press proof scale.

Correction marks

Corrections are to be marked on the combined printing according to DIN 16549.

Adjustment

Originals, press proofs and production runs are to be adjusted under the following light conditions:

Transparent originals D 50

Reflective originals D 65

Analog/digital proofs

Subject to consultation, a proof can be produced in place of a press proof. In the case of an analog proof, the final film must match the surface of the print stock (matt or glossy).



Requirements

5. Films with multiple-ups

The multiple-ups must all be absolutely the same; i.e., if there are four copies, all four copies must be produced from the original and not consist of one original and three copies.

Information to provide

6. Films delivered by print customers

- a) Page number or position thereof
- b) Color (for polychromatic printing)
- c) Formats
- d) Image number and short description

To be marked

- a) Register marks (as agreed in the case of individual illustrations)
- b) Corner or trim marks (as agreed on the case of individual illustrations)
- c) Center marks for double pages

To be included with delivery

- a) All dimensions
- b) Type area
- c) Imposition pattern or layout pattern

To be delivered

- a) Reverse-reading positive films according to the guidelines of section 1, "Offset reproduction"
- b) or right-reading negative films (by arrangement)
- c) Press proofs, with gauge marks, signed for press



Guidelines for loose inserts

In order to avoid deadline problems and extra costs, we ask that you observe the following guidelines for the production of inserts.

Guidelines for the product

- The minimum format is DIN A6 (105 x 148 mm).
- The maximum format is as defined in the applicable specifications. The format of third-party inserts must be significantly smaller than the product format. The insert can be folded if necessary.

Single sheets

- The paper weight of single DIN A6 sheets must not be less than 170 g/m².
- Single sheets with formats larger than DIN A6 to DIN A4 must have a paper weight not less than 120 g/m².

Multiple-page supplements

- Inserts in the maximum format in each case must have a minimum of 8 pages. If there are fewer pages (4 or 6 pages), a paper weight not less than 120 g/m² is required, or these inserts must be folded again.

Weight

- The weight of an insert should not exceed 50 g/copy. Higher weights will require further consultation.

Samples

- To ensure that the insertion process proceeds smoothly, the submission of samples in advance (three if possible) is advisable.

Processing guidelines

Types of folding

- Folded inserts must be prepared with cross break, wrap-around or middle folding. Concertina or double/inside gate folds may cause serious problems and are therefore to be avoided.
- Inserts with multiple pages must have a lengthwise fold (along the gutter).

Trimming

- All inserts must be cut at right angles and to the same size.
- Inserts or supplements must be devoid of incomplete cuts or unseparated pages caused by the use of a dull blade.

Products to be affixed (e. g., postcards)

- Postcards to be included with inserts must always be affixed inside the inserts. They must be affixed flush with the fold and aligned with the top or bottom of the insert.
- Only strip gluing – never spot gluing – is to be applied.
- Inserts with products affixed on the outside by prior agreement.
- Inserts with special formats or merchandise samples cannot be processed by machine without prior technical review by us.

Spine wire stitching

- Spine wire stitching should be avoided whenever possible. If it is used, the wire gauge must not exceed the thickness of the spine of the insert.
- Thin inserts should always be produced with spine or fold gluing.

Condition on delivery

Guidelines for packaging and transport

- The type and form of inserts delivered to us must be such as to allow immediate and flawless machine processing without the need for additional, manual preparation.
- Inserts in which insufficiently dried ink has caused pages to stick together, which have a strong electrostatic charge, or which have become damp cannot be processed.
- Inserts with bent-over corners (dog ears) or edges, crease folds or displaced spines also cannot be processed.
- Tip-ins and inserts of minimal size must not be interleaved within a layer. Each layer (grip height: 15 – 20 cm) must be provided with an intermediate base 2 mm thick.



Layers

- The non-interleaved, straight-edged layers should be from 80 to 100 mm high so that they can be grasped by hand.
- The layers must not be so thin as to make pre-sorting necessary.
- Tying up or wrapping individual layers is neither desired nor useful.

Palletization

- The inserts must be stacked cleanly on stable reusable pallets.
- The inserts should be protected against possible transport damage (mechanical stress) and, if necessary, against moisture.
- To prevent the absorption of moisture and protect the layers from dirt, the pallet base must be covered with a sturdy sheet of cardboard.
- If necessary, the layers can be prevented from sagging or bending with a sturdy sheet of cardboard between the layers. This will give the stack greater firmness and stability at the same time.
- If the pallet stack is strapped or enclosed in protective wrapping, care must be taken to ensure that the edges of the inserts are not damaged or bent.
- Each pallet must be clearly and visibly marked with a pallet card that corresponds to the delivery note and lists the contents and quantities.



Use of packing materials

Guidelines for the use of materials

- Packaging should be limited to the minimum necessary for the purpose.
- Pallets and load boards should be reusable.

Use of recyclable packaging materials

- Pallet straps should be made of steel.
- Plastic materials must be made of polyethylene.
- Cardboard packaging materials must be recyclable.
- Composite materials may not be used for packaging.

Accompanying documents

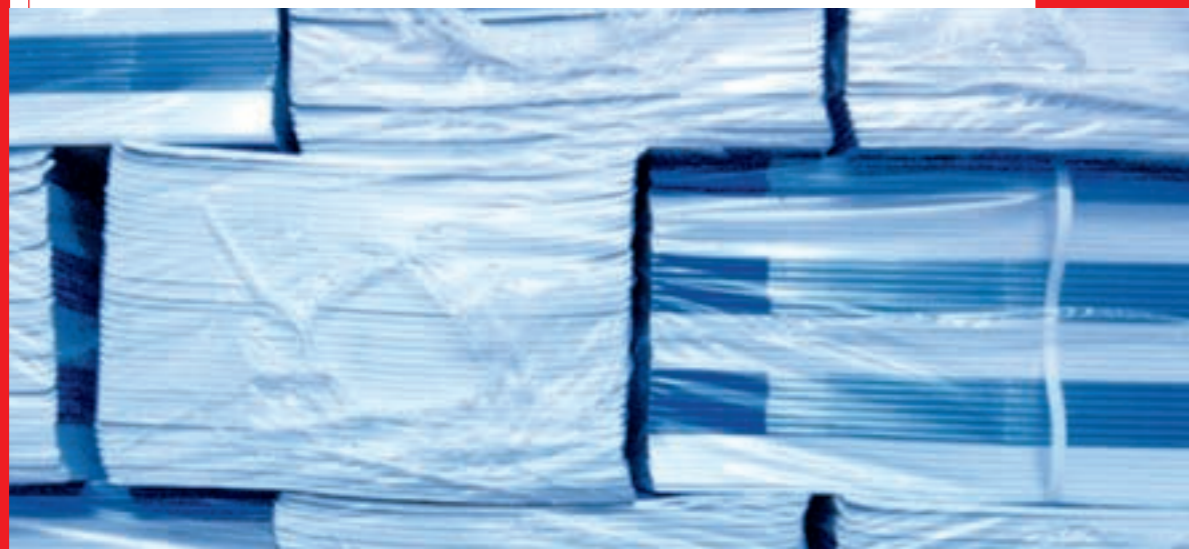
Guidelines for handling

The delivery note and pallet labeling (pallet cards) must include the following information:

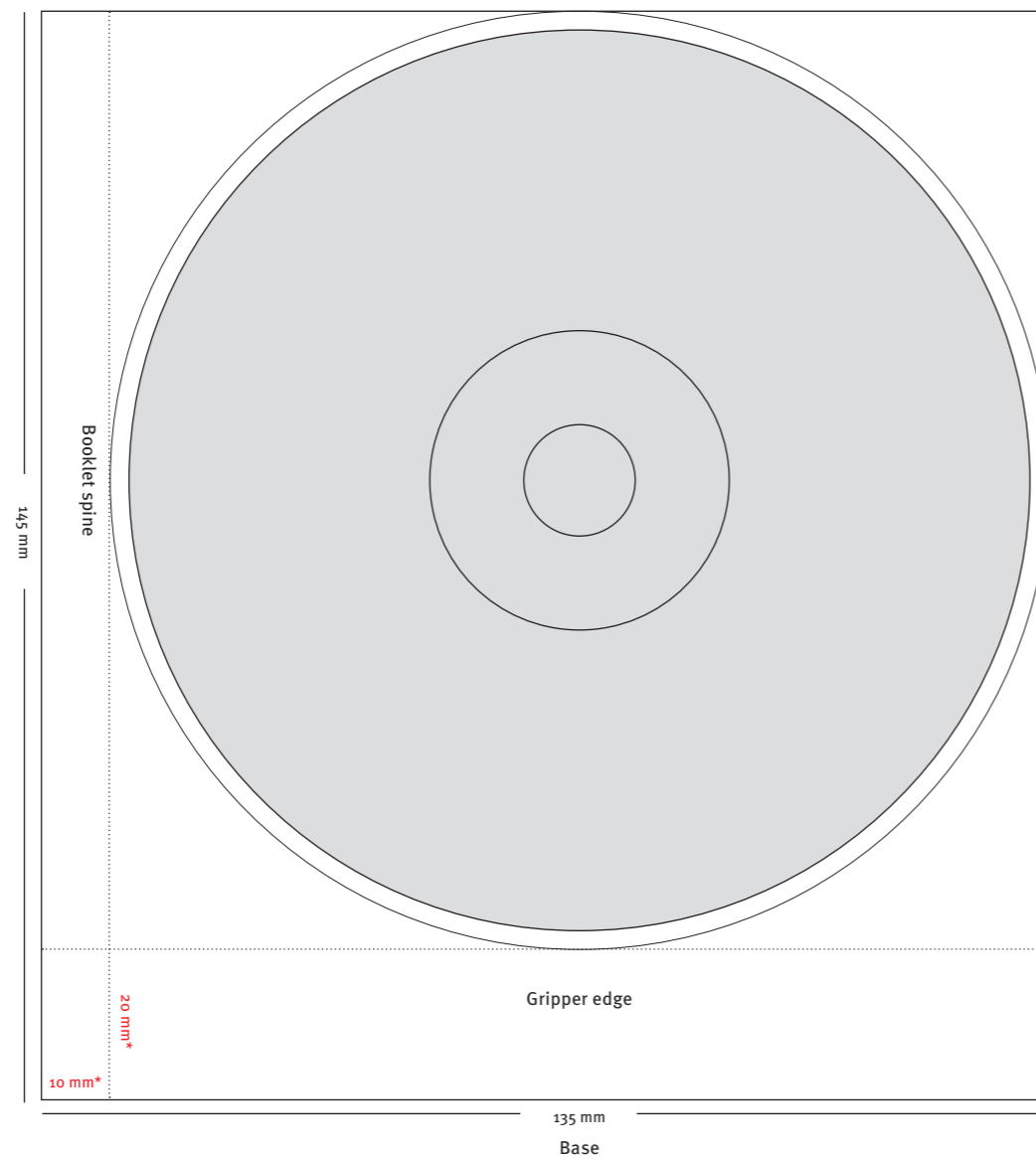
- The publisher's job number.
- The object to be inserted and the issue in which it is to be inserted.
- The insertion or publication date.
- The customer ordering the insert
- Insert title or the item number or subject thereof
- Sender and recipient
- The number of pallets
- The total number of inserts delivered
- The number of inserts per pallet
- Type: loose insert | bound inserts | tip-ins

Also required:

- The same text on the delivery note as on the pallet card.
- Space for notes.



CD processing



20 mm* = gripper edge for the card gluer/saddle stitcher and perfect binder.

A 20 mm gripper edge is essential for reliable production. The risk of damage to the CD cannot be avoided if there is no gripper edge.

Further problems may arise due to card gluer malfunctions when the CD is pulled off.

10 mm** = additional edge for the perfect binding.

As the spine is being processed, a stopper could cause the CD to slide into the booklet spine and destroy the perfect binder's milling apparatus.



