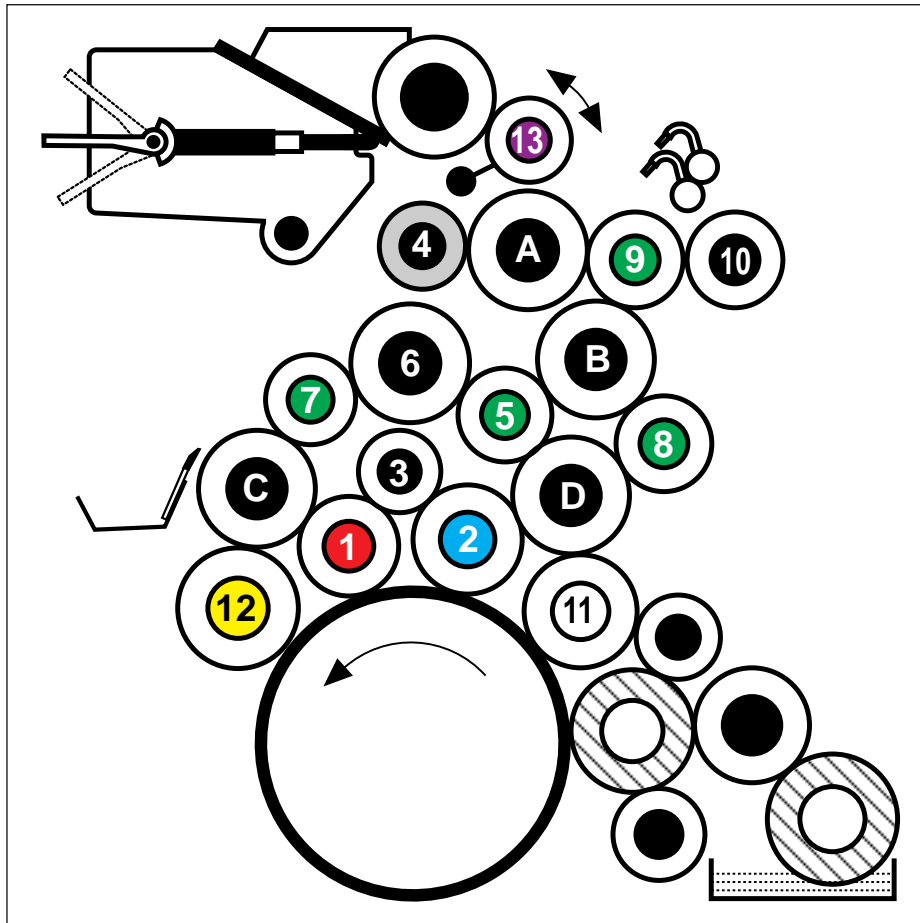


Heidelberg Speedmaster SM 52

Roller diagramm



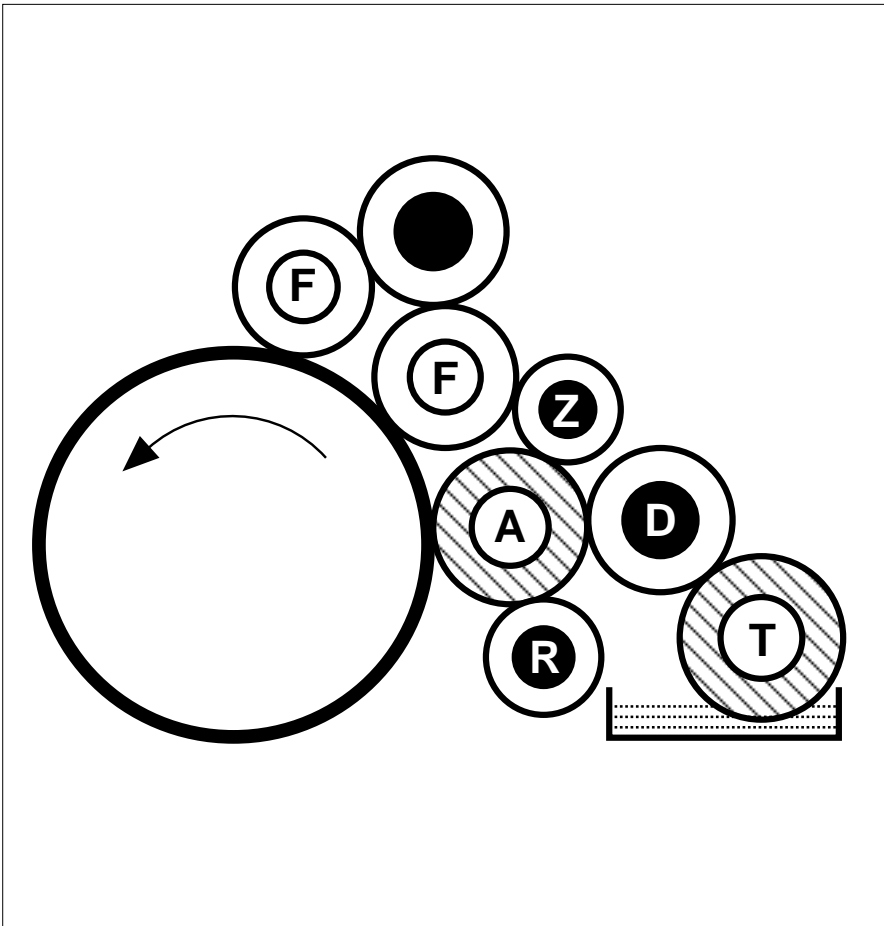
The numbering 1 - 13 denotes the recommended installation sequence.

A - D are not removeable.

- rubber roller ø 48 mm
- rubber roller ø 50 mm
- rubber roller ø 54 mm
- rubber roller ø 55 mm
- rubber roller ø 61 mm
- rubber roller ø 64.5 mm
- rubber roller ø 68 mm
- dampening form roller and water pan roller

Heidelberg Speedmaster 52

Alcolor dampening system

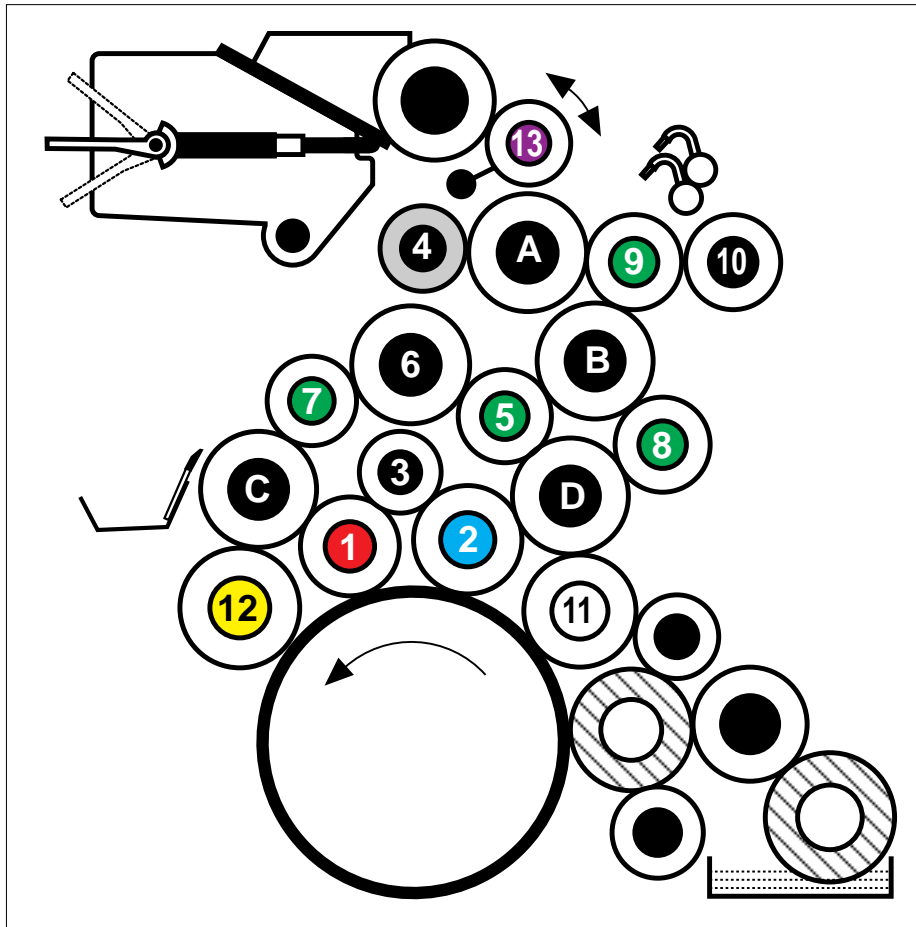


The adjustment of the Alcolor has to be done by means of two paper slips, OS and DS a broad slip to the rubber roller and a narrow slip as a feeler gauge to the steel roller. Inking system must be adjusted.

- step 1:** Insert A, then close the roller journal boxes OS and DS.
- step 2:** Insert Z. The roller journal with the pin at the back into the bearing OS up to the stop, then insert Z on DS into bearing, swing the latch on DS upwards and tighten the screw on DS. Adjust Z to A on light contact.
- step 3:** Ink-up dampening system and adjust **A to R = 4-5 mm**, then adjust **Z to A = 3mm**. **Z to F is factory set on 4-5 mm**, (if necessary clockwise more contact).
- step 4:** Insert T, align water pan roller on OS to the gear shaft.
- step 5:** Insert D, position the metering roller centrally to the water pan roller, close the roller journal boxes on OS and DS and close cover for the gears.
- step 6:** Adjust D to T, engage the metering roller so that a 10 cm wide water stripe becomes visible on both sides of the water pan roller, then engage further until the water stripe disappears on both sides (if necessary correct while starting first job, 1 cm wide water stripe is correct).
- step 7:** Adjust D to A, engage inking and dampening system, after 10 seconds disengage the two systems and turn metering roller back by hand **D to A = 4mm**.
- step 8:** Adjust A to the plate, engage ink form rollers and dampening form roller on the plate and disengage again. **A to the plate = 4 mm**.
Check 1. ink form roller to the plate = 3 mm.

Heidelberg Speedmaster SM 52

Inserting and adjusting inking system



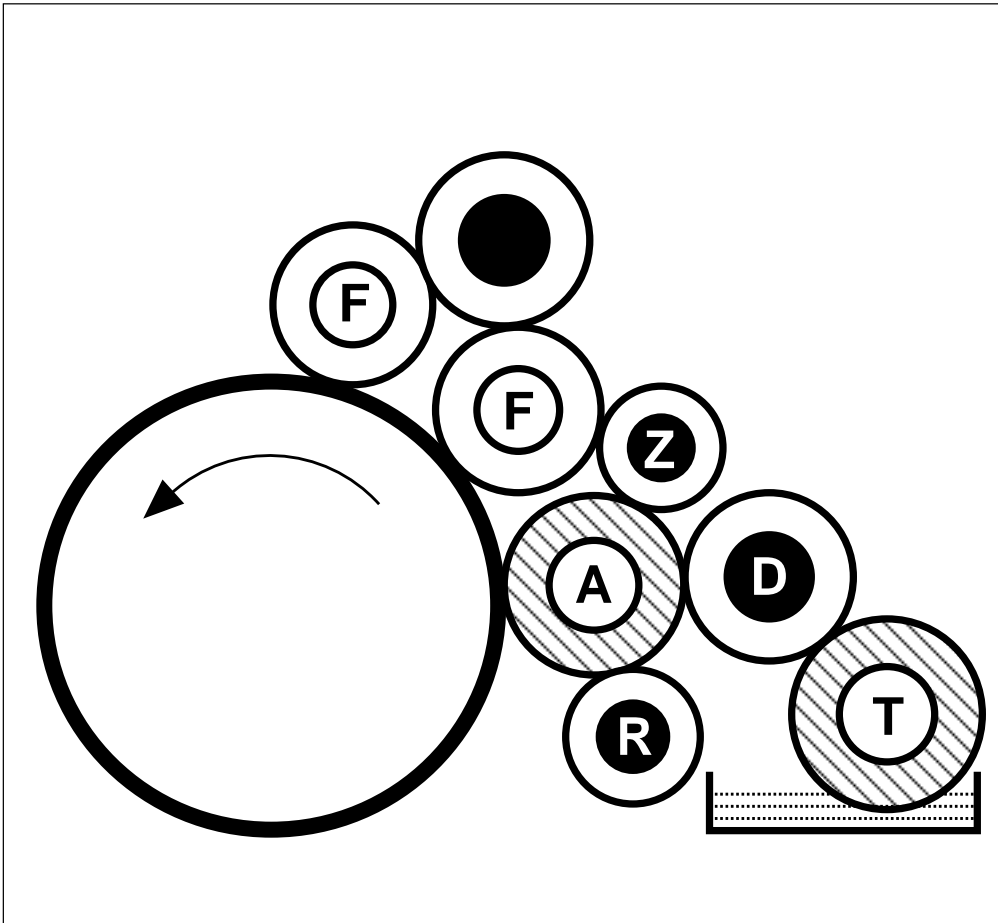
On all adjustments more contact clockwise, anti-clockwise the contact will be reduced.
The colour of the adjustment screws indicate the colour of the roller.

Inserting and adjusting:

1. step: Insert rollers 1-10.
2. step: Adjust 1 to C = 3-4 mm, 2 to D = 3-4 mm.
3. step: Insert rollers 11 and 12, then adjust 11 to D = 3-4 mm, and 12 to C = 3-4 mm.
4. step: Adjust ink form rollers to plate = 3 mm, check rollers one more time after setting the dampening system. Check 11 to D again.
5. step: Insert vibrator (13) and adjust vibrator (13) to the duct = 3-4 mm. The adjustment of the vibrator to A is set automatically. (If necessary adjust vibrator to A clockwise to get more contact).

Heidelberg Speedmaster 52

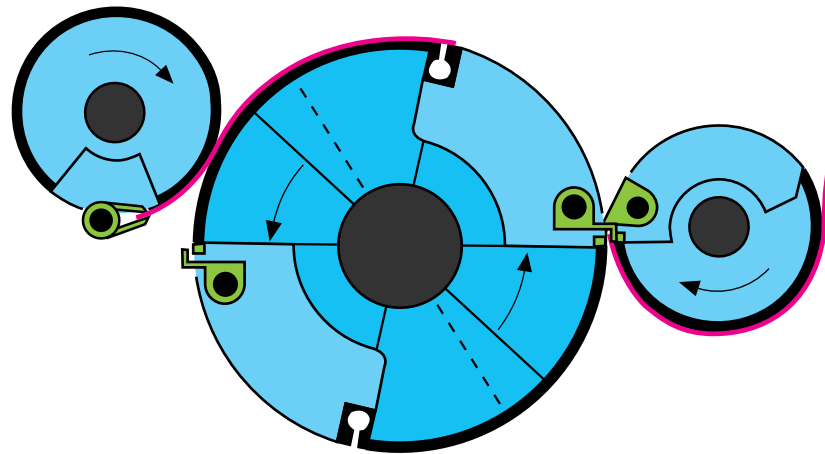
Alcolor dampening system



- T** Water pan roller
(rubber, crown ground)
- D** Metering roller
(chromium-plated)
- Z** Intermediate roller
(Rilsan)
- A** Dampening form roller
(rubber)
- R** Dampening distributor
cylinder
(chromium-plated,
not removeable)
- F** 1. and 2. ink form roller

Perfecting Device for Convertible Heidelberger Offset Presses

Sheet travel multicolour printing

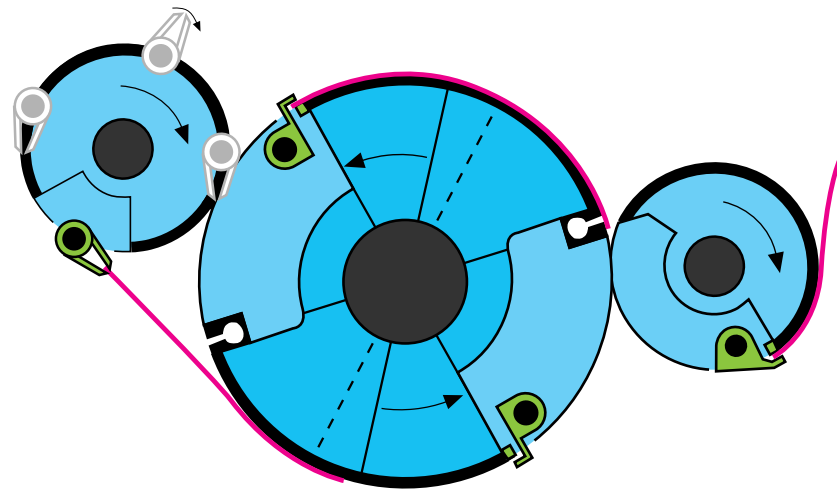


Reversing drum
with pincer grippers

Transfer drum

Storage drum

Sheet travel perfecting



Reversing drum
with pincer grippers

Transfer drum

Storage drum

Perfecting Device for Convertible Heidelberg Offset Presses

All Heidelberg multicolour presses, with exception of the Quickmaster and S-Offset, can on request, be equipped with one or two perfecting devices, depending on the press type, between the individual printing units. This permits simultaneous printing of both the front and reverse side of the sheet in one pass. The continuous development on convertible Heidelberg offset presses permits up to five colours in one pass on both sheet sides.

Sheet travel in multicolour printing

In multicolour straight printing and in perfecting, the sheet is taken up by the first transfer drum after printing and is passed on the double-diameter storage drum. This storage drum is equipped with two gripper systems. In multicolour printing the storage drum transfers the sheet by the front edge to the pincer grippers of the third drum (reversing drum). This, in turn, transfers it to the grippers of the impression cylinder of the next printing unit. All grippers pick up the sheet only by the front edge (leading).

Sheet travel in perfecting

As in straight printing the sheet is taken up after printing by the grippers of the first transfer drum and passed with the front edge in the grippers of the storage drum. The front edge of the sheet is not passed on the pincer grippers of the storage drum but is fed past the reversing drum until the sheet end is picked up by the pincer grippers. While the pincer grippers revolve by 180°, the storage drum grippers let go of the sheet leading edge. The pincer grippers now pass the reversed sheet by its original tail edge to the next impression cylinder to be printed on the reverse side. The double-diameter storage drum has, at each trailing edge, a bar with excentric turning suckers. These pull the sheet smooth in a circumferential and in a lateral direction, to ensure that originally wavy stock lies flat on the storage drum before being reversed and transferred to the next printing unit in perfect register. In the case of narrow sheet sizes, suckers of the storage drum, not needed are to be switched off. The gap between impression cylinder and transfer drum can be altered by changing the packing height below the Superblue base blanket, or the alternative available structure chrome jacket.

Measuring method blanket and plate cylinder

Measuring plate and blanket underlay height

For exact measurement of both plate and blanket packing on the press, a special packing gauge is available. Such a packing gauge can be supplied as accessory equipment under parts number:

Packing gauge 09.465.000/1 K1 (metric system)

Packing gauge 09.465.100/1 K1 (inch system)

Measuring method blanket cylinder

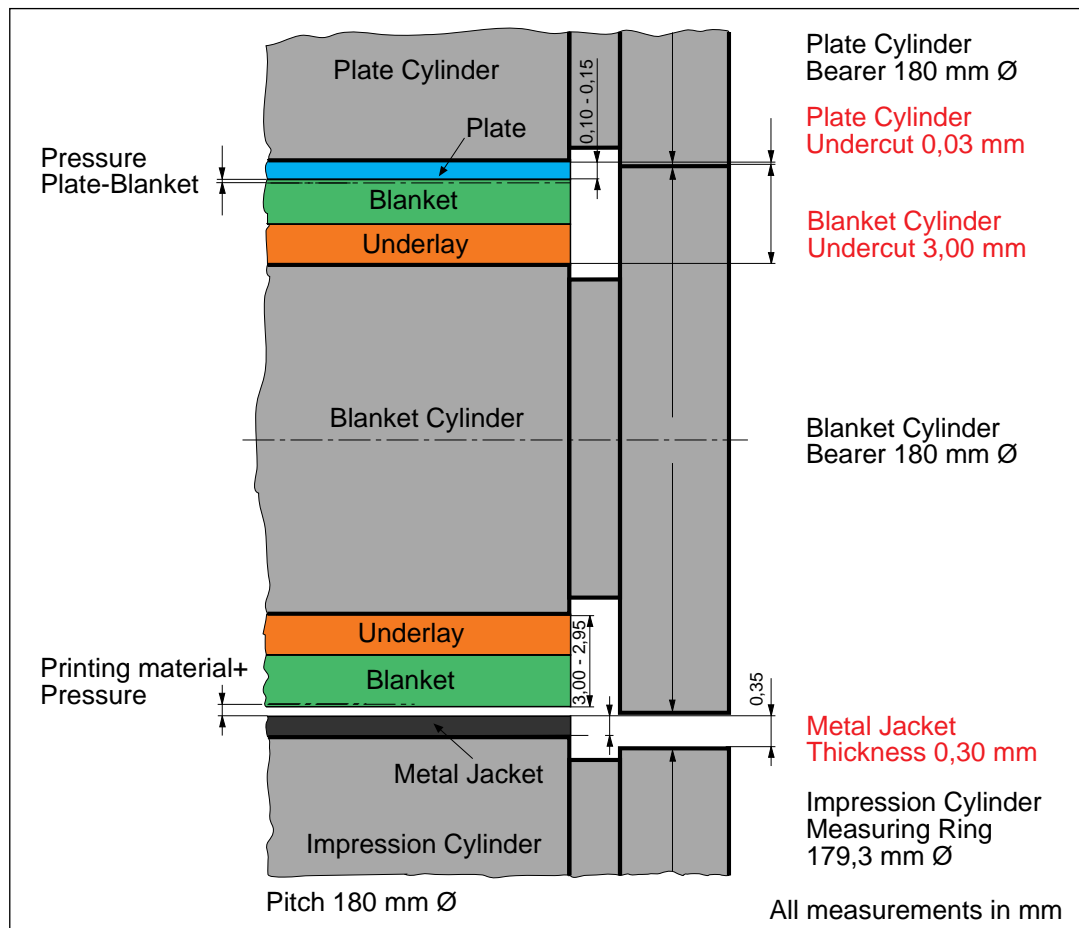
After mounting and tightening the blanket, the press should run on impression a short time as rubber blankets have the tendency to settle somewhat, the blanket must be retightened. To provide a more suitable surface for the gauge to slide on, a sheet of paper is first placed on the blanket, extending onto the cylinder bearers. The packing gauge must be placed onto the blanket cylinder parallel with the cylinder shaft, until the indicator pin of the exterior dial rests on the cylinder bearer. After the gauge is seated correctly on the cylinder, the three dials are turned to read "0". The gauge is then moved sideward until the indicator pin is positioned on the blanket surface.

Care must be taken that the dials immediately beside the red button have to indicate "0" again, otherwise the gauge was tilted or edged. The exterior dial will now show the packing height of the blanket in comparison to the bearers. After a few hundred impressions, the blanket must be retightened and its height rechecked. The reading on the dial could vary from the last result, in this case the packing must be increased if necessary.

Measuring method plate cylinder

The measuring method for the packing height of the plate cylinder is similar to the method of the blanket cylinder. A sheet of paper should be placed on the plate also to avoid damage to the plate surface. Retightening of the plate is not necessary. To make the reading more easy place the sheet of paper underneath the last ink form roller and engage the ink form rollers onto the plate. The sheet does not displace anymore.

Heidelberg Speedmaster SM 52 Cylinder Packings



Calculation:

Plate thickness	$+ 0,15$ mm
Plate cylinder undercut	$- 0,03$ mm
Plate above bearer	$+ 0,12$ mm

Blanket	$+ 1,95$ mm
Underlay	$+ 1,00$ mm
Blanket cylinder undercut	$- 3,00$ mm
Blanket below bearer	$- 0,05$ mm

Plate above bearer	$+ 0,12$ mm
Blanket below bearer	$- 0,05$ mm
Pressure plate-blanket	$+ 0,07$ mm

Blanket below bearer	$- 0,05$ mm
Printing material	$+ 0,10$ mm
Adjustment on the scale	$+ 0,05$ mm
Pressure	$+ 0,10$ mm