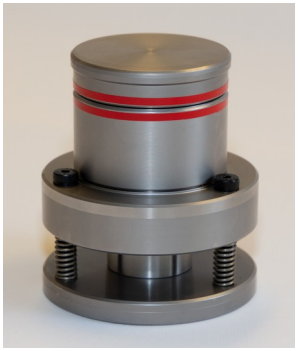
Instruction Manual

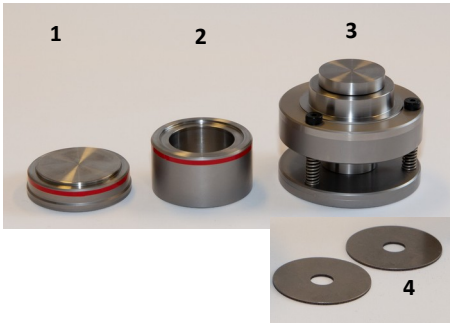


Thank you for purchasing this high quality Die Set, made by Maassen. It is meant to be used in combination with a laboratory press.

This Die Set is made of hardened stainless steel of the best quality to guarantee a very long lifetime. The XRF Series is the best solution to press samples in Aluminium Cups or inside steel rings of different sizes.

Scope Of Delivery

The Die Set consists of 5 parts and the extractor ring (not visible in the pictures). The threepart base unit is already preassembled and mounted with springs. Each XRF Die Set version is using a different press cylinder to use different steel rings or the 40 mm aluminium cups.



The top part is always made of an outer ring (2) and the lid (3). Both have a red marking which needs to be assembled like shown in the first picture.

The models BR51, BR4035 and BR4032 additionally contain two space rings (4) and an Allen key to vary the filling height inside the steel rings.

Safety and Die Care

All Die Sets of our XRF Series can take a maximum load of 40 tons. Always consider the safety precautions and instructions of the lab press you are using!

The dies are made of corrosion resistant steel. Nevertheless, we recommend to clean the die with a soft cloth and maybe some water after every press process. This avoids that remains of the previous use can make the sample rings get stuck inside the outer ring. Always store it in a dry place.

Preparing and filling the die set

1) Model XRF-BC40: Using Aluminium Cups

The standard diameter of the suitable aluminium cups is 39.8 mm. Maassen GmbH can supply it as straight wall cup (P/N SO-T40) or tapered wall cup (P/N SO-S40H).

Put the aluminium cup into the upper hole of the die.

Continuation XRF-BC40

1.1 Filling: For the best possible quality, fill in the sample and spread it with a spatula to get a flat, evenly distributed surface. Now put the lid on top and press it on the sample by hand, while turning the lid. Good preparation helps to produce a more homogenously compressed sample pellet.

1.2 The die set is now ready to be placed in a press

1.3 Turn down the spindle, so it will touch the surface of the lid. Start pressing and keep the load as long as necessary to get a good pressed pellet.

1.4 Release the pressure and turn the spindle upwards to have enough space for the extraction ring.

1.5 Replace the lid with the extraction ring and press again until you can see the aluminium cup. Release pressure again and use the sample for your analysis. Clean the Die set!

---

2) Models XRF-BR51 / BR4035 / BR4032: Using Steel Rings

These Dies are made for the use of steel rings. The cylinder presses the sample to fix it inside the steel ring. Suitable ring sizes are:

BR51:	51 mm OD, 35 mm ID, ca. 9 mm H
BR4035:	40 mm OD, 35 mm ID, ca. 14 mm H
BR4032:	40 mm OD, 32 mm ID, ca. 14 mm H

Put the ring into the outer ring the die and consider point 1.1 to 1.3 for correct sample preparation. Take care that the sample powder is only inside the ring!

After releasing the load, take the complete die set out of the press and remove the outer ring and lid. Now you can use the steel ring for your sample analysis.

Hint: If the steel ring gets stuck inside the die, use the extractor ring described at point 1.5.

Varying the fill height

The fill height of the ring press dies can be reduced from 1 to 3 mm by using the distance rings. Turn the die set upside down and remove the screw at the bottom. Remove the cylinder and put one or two rings between the bottom and the cylinder. Fix it again and work with the die set as usual. Now, the cylinder extends into the steel ring and you need less sample to fill.