X-ray diffraction is the non-destructive analytical method which determines the structural properties of solid or fluid matter on a micron and a nm length scale. In contrast to various complementary methods X-ray diffraction does not require any complex sample preparation. However, depending on e.g. sample consistency, volume, or other property, an appropriate specimen holder is required. Fixing the material under investigation precisely in the measurement position is mandatory for obtaining accurate analytical results.

Bruker AXS offers numerous dedicated solutions for the different types of specimen. These are fitted to the analytical requirements and guarantee best possible data quality. This spec sheet gives an overview of the different compatible specimen holders for the D8 family and the D2 PHASER with single position sample stage, their applications and order numbers.

This document does not present all available specimen holders and samples stages. Upon request tailored solutions can be realized to further optimize the analytical results.
Set of 10 specimen holder, PMMA or steel, 8.5 mm height, sample reception Ø 25 mm, for [1][2][3][7].

Set of 10 specimen holder, PMMA or steel, 8.5 mm height, sample reception Ø 40 mm, for [1][2][3][7].

Set of 10 specimen holder, PMMA, 20 mm height, sample reception Ø 40 mm, for [1][3].

Set of 10 specimen holder rings for transmission, for [2][3].

Set of 10 specimen holder rings PMMA, 8.5 mm height, airtight, sample reception Ø 25 mm, 1 mm depth, for [1][2][3][7].

Set of 10 specimen holder rings for clays. The PMMA made ring carries a height adjustable glass slide, on which the clay is prepared. For [1][2][3][7].

Set of 10 specimen holder rings made of PMMA or steel for back loading sample preparation. For [1][2][3][7].

Set of 10 specimen holder rings for Ø 25 mm filter samples, 8.5 mm height, for [1][2][3][7].

Set of 10 specimen holder rings for small sample amounts, Ø 51.5 mm, Ø 24.5 mm Si crystal, for [1][2][3][7].

Set of 10 specimen holder rings for small sample amounts, Ø 51.5 mm, with Ø 20 mm x 0.5 mm sample cavity, for [1][2][3][7].

SRM 1976b based Corundum standard sample supplied by the NIST fitted in a steel ring. Used for instrument performance verification.
**A100B33**

*Airtight* specimen holder with dome like x-ray transparent cap, for environmentally sensitive materials, sample reception Ø 25 mm, 1 mm depth, for [2][7].

**A100B36/B37**

*Low background, airtight* specimen holder for small amounts of environmentally sensitive material. Sample reception is a 20 mm diameter silicon wafer without (B36) or with (B37) cavity.

**A100B138-B141**

*Low background, airtight* specimen holder for small amounts of environmental sensitive materials. The dome like cap is equipped with a knife edge beam stop.

**C79298A3158B187/B188**

*Low background* sample holder for rotating sample stage, with a 25 mm diameter silicon wafer.

**C79298A3244D96**

Set of 9 specimen holder rings steel, sample reception Ø 20 mm, airtight, for [1][2][7].

**C79298A3158B64**

Universal sample cup for rotating sample stage, for samples up to 51.5 mm diameter and 40 mm height, minimum 2Theta is 0° without sample rotation, 20° with rotation.

**C79298A3158B65**

Universal sample cup for rotating sample stage, for samples up to 51.5 mm diameter and 40 mm height, allows measurements with sample rotation down to 3° 2Theta.

**A24B95**

Transmission sample cup for rotating sample stage with a powder-on-foil sample preparation tool and a glass alignment slit, allows transmission measurements from -10° to 110° 2Theta.

**7KP90018BS**

Steel ring with 51,5 mm diameter. Sample reception Ø 35 mm Height: 8,5 mm.
**Solutions for solid specimen**

**A100B38**  
**Capillary spinner**  
Device enabling permanent spinning for capillary investigations with diffraction system equipped with Eulerian cradles [4][5][6][9].

**A24D294**  
**Fast sample spinner**  
Device for continuous spinning with 30 rpm, mounted on UMC stages or Eulerian cradles [4][5][6][9]. Max. sample dimension: 51.5 x 8.5 mm².

**A24D295**  
**Wobbler**  
Device for continuous oscillation of a solid sample. Mounted on UMC stages or Eulerian cradles [4][5][6][9]. Max. sample dimension: 51.5 x 8.5 mm².

**A19B57**  
**Clamp holder**  
Device for mounting irregular bulk samples. The position of the clamp jaws can be adapted to the shape of the sample, for [4][5][6][8][9].

**A19B56**  
**Thin film sample holder**  
This nozzle enables holding of small thin film samples through vacuum, for [8]. For mounting on [4][5][6][9] the adapter plate A19B59 is required to pass the vacuum.

**A24D221**  
**5” Vacuum chuck**  
Device for precise mounting of wafers, glass plates or other flat samples by vacuum [4][5][6][9].

**A24D223**  
**6” Laminar chuck**  
Laminar sucking chuck for accurate mounting of flat samples. The micro-porous sucking plate allows simultaneous fixing of a number of small samples. For [4][5][6][9].

**A19B210/B200**  
**Wafer Chuck**  
Devices for stress free mounting of 2 – 6 inch (B210) wafers with [4][5][6]. Or for 2 – 12 inch (B200) wafers on [4][6].

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[1] D8 ENDEAVOR, 66 sample magazine  
[2] FLIP-STICK  
[3] AUTO CHANGER  
[4] ¼-circle Eulerian cradle  
[5] Centric Eulerian cradle  
[6] UMC and XYZ stages  
[7] D2 PHASER, single position sample stage  
[8] Compact Cradle®  
[9] Compact UMC stage