

Multiple-Joint Hinges

Accessory and Special Versions

Accessory

In addition to the spacer plates available for compensating or positioning in the third plane, there are two other accessory parts that enable simple and universal mounting of the multiple-joint hinges.

- Mounting plates with threaded studs (GN 2376 and GN 7247.6)
- Spacer plates with tapped holes (GN 2372 and GN 7247.4)

Using the different plates eliminate the need for other parts during installation. This applies, for example, to screws, nuts or washers as well as any threaded holes in the surrounding construction.

If required, the plates can also be welded to the housing, allowing the hinges to be removed and reinstalled as often as necessary for maintenance or repairs. If the plates are installed inside the housing, the exterior surfaces remain free of interfering parts. This is ideal for applications with special design standards or when easy cleaning is required. Installed on the inside or outside, the plates also protect against vandalism because there are no accessible mounting screws.

Special versions

For special requirements, it may happen that none of the standard hinges will serve as desired, for example when the kinematics lead to collisions or additional options are required. To still offer a solution for such cases, it is possible to develop special hinges from certain minimum quantities with changes to the following specifications:

- **Other opening angles:** Based on the seven joints, it is possible to realize opening angles from 0 to 180°. Depending on the application, an angle of up to 270° is possible. For large opening angles, a simple design check via CAD is recommended in advance. This allows collisions to be identified and corrected at an early stage.
- **Other assembly angle brackets or mounting flanges:** Depending on the needs, different mounting geometries can be provided. The position and quantity of mounting holes can be changed as needed. Only the connection to the hinge itself must remain identical if a standard hinge is used.
- **Other max. wall thicknesses:** If the listed nominal wall thicknesses of the housings, doors, flaps and hatches are not sufficient, the hinges can be modified to make larger or smaller wall thicknesses possible with the given opening angle. However, this will alter the movement kinematics slightly.
- **Other lifting motions:** The opening and closing kinematics of a hinge can be changed as desired. For example, a hinge could first perform a lifting motion and then a pivoting motion or vice versa. Collisions with the housing or other nearby parts can be avoided in this way.
- **Other materials:** The multiple-joint hinges can be manufactured from other materials, e.g. zinc plated steel, stainless steel or aluminum to meet special requirements such as low weight, high corrosion resistance or higher load capacity.
- **Other finishes and colors:** Multiple-joint hinges can be delivered with a variety of surface finishes, such as painting or powder coating. Various colors can be applied to the aluminum hinges by anodizing. The stainless steel versions can be blasted, brushed or polished.
- **With indexing:** Depending on the application, multiple-joint hinges can be fitted with indexing elements, such as indexing plungers or spring plungers. This allows the hinges to be latched at any position within the opening angle or to be briefly locked until a specific force is applied. For example, hatches or flaps can be secured in open position until a maintenance or repair process is finished.
- **With pneumatic spring connection:** Flaps and hatches are often combined with pneumatic springs, which facilitate operation or hold the applications in a defined end position. To reduce the number of attachments, pneumatic springs can be attached to one of the assembly angle brackets of the hinge itself (usually on one side).
- **With reinforced design:** When installed in doors, stainless steel multiple-joint hinges can only accept relatively low loads due to their small cross-section. Larger loads can be achieved with a reinforced design consisting of a multi-layered arm geometry (e.g. two or three layers).

