



Seating Componentry and Functionality

Castor Types

Brake loaded

When seated on product, castors change from fixed to free wheel.

Brake Release

When seated on product castors change from free wheel to fixed.

Soft Wheel Castors

Used on flooring types that are prone to damage.

Glides

Used for applications where a fixed seating position is required. Popular sometimes in boardroom environment and used where product has an elevated height due to increased stability.

Chromed

Bases

Nylon

Steel with chrome plating

Cast polished aluminium

Pistons

Standard pistons are available in a variety of different lengths and shapes, with 7" being the most popular. As the section of the piston which fits into the base is a tapered cone shape, the angle and shape of the taper effects how deep the piston sits in the base and determines the height range of the product (Not universal)

Fixed Height

More popular in boardroom application where continuity in height is required.

Memory Return

More popular in boardroom application this piston will return the seat to a forward facing position. This piston type generally has no height adjustment.

Anti-Static

This piston allows electric current to pass through the product and be grounded. Normally used when working in a IT hardware environment.

Draftsman kit

Draftsman kit consists of: Elongated gas stem with gator, foot ring and glides.

Used in application where an elevated height is required. Please note, increased height range differs slightly depending on product.

Mechanisms

The mechanism (or 'Mech') is often the most expensive and complex part of an office chair. Essentially the mechanism determines the how the angle and height of the seat and back move in relation to one another. Angles that can be adjusted are: Seat height, seat angle or 'tilt' and the angle of the back rake. Mech's are available in a variety of designs, the most popular are summarised as follows:

Mech 1. Single Lever Height adjustable

Levers: 1

Benefits: Low cost

Notes No seat tilt only back rake, seat pan remains in horizontal position

Mech 2. Single Lever Lock/Tilt

Levers 1

Benefits: Low cost

Notes: Although the angle of the seat and back rake are adjustable their angle is fixed in relation to one another. The recline on this product can only be 'locked off' in an upright position.

Mech 3. Twin Lever Lock Tilt

Levers 2

Benefits: Low cost

Notes: Although the angle of the seat and back rake are adjustable they are fixed in relation to one another. This product can be 'locked off' in any reclined position. Popular with executive seating application.

Mech 4. Knee Tilt

Levers 2

Benefits: This 'Mech' gives the greatest level of adjustment.

Notes: Angle of seat and back remain the same as with 'lock tilt' mech, but product hinged lower nearer the front. More popular with boardroom and executive seating applications.

Mech 5. Synchronous

Levers 1-2

Benefits: increasing blood flow and circulation.

Notes: Back rake and seat tilt move in relation to one another (generally 2:1 i.e. 2 degrees of back rake to 1 degree of seat tilt) This action means that instead of the body of the user remaining at a 90° degree angle, it is extended/straightened when in free float. Twin lever product can be locked off in a reclined position, auto tension can only 'locked off' in an upright position. Popular with task seating applications.

Mech 6. A-Synchronous

Levers 3

Benefits: This 'Mech' gives the greatest level of adjustment.

Notes: Although there is more adjustment is required by the user to achieve the preferred seating position. The 'back rake' and 'seat tilt' can be adjusted completely independently of one another. Often this 'Mech' type has 'forward tilt' / 'pelvic tilt' function. This is more popular with a user that prefers a more upright/forward seated position. Very popular with operator seating applications

Seat Slide

Benefit: Often for shorter or taller users seat depth can be either:

- To short, the front edge of the seat will cut into the back of the leg, prevent circulation and result in the user being uncomfortable.
- Too long, then the users back will not make contact with the back support again resulting in an uncomfortable user.

Seat slide allows the user to adjust the seat depth to the optimum position. Seat slide comes either as standard on certain products, or can be fitted retrospectively to certain products.

Foams

Standard Foam

Cut to shape from roll of 'sheet foam' tension from fabric over base of product creates shape.

Benefits:

Low cost due to faster production process

Poured / Cured Foam

Hot liquid injected with a large quantity of tiny air bubbles, then poured into a mould and set.

Benefits:

Higher density means firmer than cheaper counterpart, but greater longevity.

Moulded foam is more versatile in shape and does not require tension from fabric to retain the shape once produced.