

ERGONOMIC ASSESSMENT

by Andrew Wilson, Osteopath & Ergonomist

KONFURB SENSE Chair

Seat Profile: 8.5 (10)

A mid-sized seat pan 450mm x 460mm with moderate foam density with a generous depth of 80mm. It has minimal side to side contouring about 1 cm. It is comfortable with minimal pressure points. The front edge of the seat starts to decline toward a waterfall about 100 mm from the front, with a defined rolled edge starting 70mm from the front. This reduces the pressure under the thigh at the leading edge and encourages a good range of postures including the forward tilt thigh which the synchro mechanism with its extra forward tilt encourages.

Back Rest Profile: 18 (20)

A high tapered backrest at 57cms with a stretched sandwich mesh fabric. It has a nice anatomical shape and a good degree of pelvic and lumbar support with a natural ability to respond to individual anatomy. The addition of two separate lateral adjustable lumbar support does not add much to the comfort. They are a bit fiddly to use and do not provide support over the lumbar vertebrae and the erector spinae muscles on either side of the spine, where it is of most value.

Configuration of Seat and Backrest:

Forward Tilt: 9 (10)

The relatively flat seat is at 0 degrees in its default position. This allows a forward slope thigh of around 10 degrees. In this position, it is comfortable and has a nice angle between the seat and the backrest. Using the additional 3 degrees seat tilt allows an additional forward tilting seated posture, but it also pulls the backrest forward 3 degrees providing an awkward upper body angle. The additional forward tilt is best used with the seat slide extended to gain optimal seat and backrest configuration.

Centre: 9 (10)

The synchro mechanism can be locked in its mid-cycle which provides a comfortable sitting position with flat thighs and a nice lumbar angle. It has good lumbar support and no pressure points. In this position, there is a nice dynamic recoil in the backrest in both extension and lateral movements which allows for regular small postural adjustments.

Reclined: 9 (10)

There are 2 stages of locking in a reclined posture. It also works very well with the dynamic mechanism unlocked with no tugging on the clothes. The high dynamic backrest provides excellent support and comfort with no pressure points.

Ease of Adjustability: 18 (20)

The chair adjustments are accessed by a paddle and a rotatory dial on each side. On the right side, the paddle adjusts the seat height with a good range and excursion of adjustment. The dial, which can pull out for easier access adjusts the tension on the synchro mechanism. It is easy to locate and easy to adjust. On the left side, the paddle allows access to the extra 3 degrees of tilt (best used in conjunction with the seat slider). It is easy to reach and easy to use. The small rotatory dial which is the locking mechanism for the synchro is not particularly intuitive or easy to use at first. It might suit a larger dial as on the other side which makes its function more obvious. The pull-out mechanism for the seat slider under the seat on the right-hand side is easy to use once it has been located. Even with the slider pulled out to maximum, there remains a nice relation between the seat and the backrest, without loss of lumbar support. The individually adjustable, lateral lumbar supports are quite awkward to use. At their lowest, they provide mild additional support over the pelvis. When moved up they fan outward, and the support becomes a bit superfluous providing a mild pressure point around the softer kidney region. The armrests have a lateral adjustment of about 3 cms each by loosening a dial under the seat and a height adjustment of about 10cms using a knob under the front of the armrest.

Anthropometric Range: 18.5 (20)

The Sense chair will suit a wide range of users. The additional forward tilt; the high backrest; the seat slider and the good range of gas lift height will suit a wide range of users.

Total - 90 (100)

Summary:

The seat and backrest profiles are excellent and provide good comfort and support. The relationship between the seat and backrest is also very good and allows for a range of good postures. Its wide range of adjustments provides it with excellent usability and very good ergonomic features.