NorSap™ AS, formerly known as AS Sørlandets Aluminiumprodukter (SAP), was established in 1969 as a one-man company working with aluminum products. Today we are a company of more than 35 skilled employees, still located in Kristiansand, Norway.

**NorSap still has active, local owners which is vital in making quick decisions.**

We have modern tooling machines and a large well-equipped factory. The majority of our products today are NorSap helmsman and operator chairs which you find onboard fishing vessels, supply ships, passenger ferries, cruise ships, offshore rigs, navy vessels and even submarines.

**We are flexible and able to adapt quickly to specific demands.**

NorSap makes use of the latest 3D modelling software, in-house engineers and designers who focus on effective, flexible solutions. Many of these are custom solutions based on special inquiries. We have machines for producing rapid prototypes to make sure such solutions can be seen in short time.

NorSap also produces products for the pleasure boat market; table and seat columns and other equipment. In addition, we supply many on-shore industries with aluminum parts and general aluminum machining services. These include cutting, punching, bending, milling, lathing, drilling, MIG/TIG welding, anodizing, polishing, tumbling and powder-coating.

NorSap also produces aluminum jalousie doors and other doors suitable for warehouses or electrical power stations. We also provide various parts for the electronic and other industries.

Whatever, the end market is, we aim to provide rugged but stylish products, specifically designed to suit our customers needs.

Please visit imtra.com for further information and product presentations.
Chair Options
NorSap 800 Series
NorSap 1000 Series
NorSap 1100 Series
NorSap 1500 Series
NorSap 1600 Standard
NorSap 1800 Active
NorSap 4000 Impulse
1500 Series Arm rest Equipment
1000 Series Arm rest Equipment
Additional Equipment
MX System
Basic Deck Rails
Stable & Solid Deck Rails
10 reasons to do business with NorSap and our partners
You may choose from our standard colors and upholstery combinations. You may also choose which color the seam is sewn in, giving you the possibility to personalize the look of the chair.

NorSap operates with standard leather, velour and fabric colors. All materials suited for the maritime environment.

**Leather / Perforated Leather**
Recommended for normal use. Flame retardant. Perforated leather has article no.: 6011 (center field only)

**Fabric**
In excess of 500,000 cycles Martindale. Recommended for extreme use.

**Velour**
In excess of 50,000 cycles Martindale. Recommended for hard use. Flame retardant.

**Standard leather colors**
BEIGE  RED  GREEN  BLUE  GRAY  BLACK

**Standard fabric colors**
RED  GREEN  BLUE  GRAY  BLACK

**Standard velour colors**
(Printed color may differ from actual color)
RED  GREEN  BLUE  GRAY  BLACK
The NorSap 3500 chair upholstery is delivered in black leather if nothing else is specified.

The illustration shows the areas that are selectable. Only the NorSap 3500 chair has more than one pattern combination.

When ordering upholstery for the 3500 please refer to the A, B, C or D pattern.

A standard chair is delivered in black with an option to choose an additional color from the standard color and upholstery range.
NorSap 800 Series

The popular choice of operator chairs.

NorSap 800 series is the lightest chair model from NorSap and it is a popular choice for smaller operator bases and vessels due to the small space it occupies.

It is available with fixed seating for use in situations where there is no need for back rest adjustment or seat adjustment.

**Features & Functions**

- Dampened height adjustable column
- Adjustable foot rest, with vertical adjustment, extra foot rest loop and the ability to flip up the foot rest.
- Adjustable arm rests, tiltable
- Adjustable back rest and seat
- Storage net on the back rest
- The seat, foot rest and arm rests folds up
- Chair swivels 360°

**Optional**

- Lumbar support
- Additional seat cover
- Deck rail mounting
- Custom color combinations
- Extra-long sliding rails
- 5-star base
- Chair top delivery for mounting on a bench
- Logo embroidery
- Additional equipment mounted in the arm rests

Model shown: 6200
Flange Chairs (to be mounted on deck or deck rail)

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Description</th>
<th>Sitting Height Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>6200</td>
<td>NorSap 800 with gas dampened height adjustable column</td>
<td>28 - 34&quot; (700 - 870mm)</td>
</tr>
<tr>
<td>6205</td>
<td>NorSap 800 with gas dampened height adjustable column</td>
<td>28 - 34&quot; (700 - 870mm)</td>
</tr>
<tr>
<td></td>
<td>- Delivered with black vinyl</td>
<td></td>
</tr>
<tr>
<td>6170</td>
<td>NorSap 800 with gas dampened height adjustable column, no foot rest</td>
<td>20 - 24&quot; (500 - 600mm)</td>
</tr>
<tr>
<td>6171</td>
<td>NorSap 800 with gas dampened height adjustable column, no foot rest</td>
<td>18 - 22&quot; (460 - 560mm)</td>
</tr>
<tr>
<td>6100</td>
<td>NorSap 800 with manual height adjustable column</td>
<td>24 - 32&quot; (620 - 820mm)</td>
</tr>
<tr>
<td>6101</td>
<td>NorSap 800 with fixed height column</td>
<td>17 - 34&quot; (430 - 875mm)</td>
</tr>
<tr>
<td>6110</td>
<td>NorSap 800 fixed seat top, fixed height column</td>
<td>17 - 34&quot; (430 - 875mm)</td>
</tr>
<tr>
<td>6105</td>
<td>NorSap 800 fixed height column, no foot rest</td>
<td>13 - 34&quot; (340 - 875mm)</td>
</tr>
</tbody>
</table>

5-star base chair (free-standing office chair, optionally fixed to the deck)

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Description</th>
<th>Sitting Height Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>6130</td>
<td>NorSap 800 Office with gas dampened height adjustable column</td>
<td>28 - 35&quot; (720 - 890mm)</td>
</tr>
<tr>
<td>6150</td>
<td>NorSap 800 Office with gas dam. height adj. column, no foot rest</td>
<td>20 - 24&quot; (520 - 620mm)</td>
</tr>
<tr>
<td>6140</td>
<td>NorSap 800 Office with fixed column</td>
<td>22 - 35&quot; (560 - 880mm)</td>
</tr>
<tr>
<td>6141</td>
<td>NorSap 800 Office with fixed column, no foot rest</td>
<td>26 - 35&quot; (660 - 880mm)</td>
</tr>
</tbody>
</table>

Seat tops only (to be mounted on casing)

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-0012</td>
<td>NorSap 800 Seat top only - With glide rails</td>
</tr>
<tr>
<td>R-0044</td>
<td>NorSap 800 Fixed seat top only</td>
</tr>
<tr>
<td>6465</td>
<td>Adapter plate for mounting the seat top on a flat base</td>
</tr>
</tbody>
</table>

Extra Equipment

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6283</td>
<td>Additional seat cover in fabric</td>
</tr>
<tr>
<td>6284</td>
<td>Additional water repellent seat cover in artificial leather</td>
</tr>
<tr>
<td>6461</td>
<td>2 Points seat belt</td>
</tr>
<tr>
<td>R-0077</td>
<td>Wheel Kit for NorSap 5-Star Base</td>
</tr>
</tbody>
</table>

All fixed height columns can be cut to desired sitting height.

If nothing else is stated, the chair will be delivered with black leather upholstery.

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**NorSap 800 - Art. No.: 6200**

- On a top-mounted deck rail

Art. No.: 6250-1500UL
The NorSap 1000 series chair is mounted on a strong Ø3.94” (100 mm) aluminum column.

This chair has the ability to be equipped with extra equipment in the arm rests. NorSap has several ready designed equipment holders that you may fit your controlling equipment, keyboard, computer mouse, note pad or coffee cup.

Features & Functions
- Dampened height adjustable column
- Adjustable foot rest, with vertical adjustment and flip up
- Adjustable arm rests, rise/tiltable
- Adjustable back rest and seat
- Storage net on the back rest
- The seat, foot rest and arm rests folds up
- Chair swivels 360°

Optional
- Lumbar support
- Additional seat cover
- Integrated microphone and loudspeaker
- Deck rail mounting
- Custom color combinations
- Extra-long sliding rails
- 5-star base
- Chair top delivery for mounting on a bench
- Logo embroidery
- Additional equipment mounted in the arm rests

Model shown: 6020

NorSap 1000 with Suspension - Art. No.: 6028
- With two point (Art. No.: 6461) and four point belt (6460)
Flange mounted chairs (to be mounted on deck or deck rail)

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Description</th>
<th>Sitting height while seated</th>
<th>Column Height unloaded</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>6010</strong></td>
<td>NorSap 1000 with gas dampened height adjustable column</td>
<td>27 - 35&quot;</td>
<td>(690 - 900mm)</td>
</tr>
<tr>
<td><strong>6020</strong></td>
<td>NorSap 1000 with gas dampened height adjustable column</td>
<td>24 - 29&quot;</td>
<td>(620 - 730mm)</td>
</tr>
<tr>
<td><strong>6000</strong></td>
<td>NorSap 1000 with fixed column</td>
<td>21 - 35&quot;</td>
<td>(530 - 900mm)</td>
</tr>
<tr>
<td><strong>6005</strong></td>
<td>NorSap 1000 with fixed column, no foot rest</td>
<td>15 - 35&quot;</td>
<td>(380 - 900mm)</td>
</tr>
</tbody>
</table>

Charcoal gray powder coated structure is standard, 
SO...Black powder coat, HV... White powder coat.

5-star base chairs (free-standing office chair, optionally fixed to the deck)

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Description</th>
<th>Sitting height while seated</th>
<th>Column Height unloaded</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>6025</strong></td>
<td>NorSap 1000 Office with gas dampened height adjustable column</td>
<td>29 - 39&quot;</td>
<td>(730 - 980mm)</td>
</tr>
<tr>
<td><strong>6027</strong></td>
<td>NorSap 1000 Office with gas dampened height adjustable column</td>
<td>25 - 34&quot;</td>
<td>(640 - 870mm)</td>
</tr>
<tr>
<td><strong>6015</strong></td>
<td>NorSap 1000 Office with fixed column</td>
<td>21 - 35&quot;</td>
<td>(530 - 900mm)</td>
</tr>
<tr>
<td><strong>6016</strong></td>
<td>NorSap 1000 Office with fixed column, no foot rest</td>
<td>18 - 35&quot;</td>
<td>(450 - 900mm)</td>
</tr>
</tbody>
</table>

Wheel Kit for NorSap 5-Star Base

All fixed height columns can be cut to desired sitting height.
If nothing else is stated, the chair will be delivered with black leather upholstery.

Suspension column

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Description</th>
<th>Sitting height while seated</th>
<th>Column Height unloaded</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>6028SO</strong></td>
<td>NorSap 1000 seat top with suspension undercarriage - with glide rails</td>
<td>16 - 18&quot;</td>
<td>(410 - 460mm)</td>
</tr>
</tbody>
</table>

Seat top only

<table>
<thead>
<tr>
<th>Art. No.</th>
<th>Description</th>
<th>Sitting height while seated</th>
<th>Column Height unloaded</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R-0009</strong></td>
<td>NorSap 1000 seat top only - with glide rails</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adjustable back rest: 90° - 55°

Arm rests are 15° adjustable

Working area of the upper part of the chair Ø640 mm / foot rest Ø1200 mm - Weight: 40 Kg
NorSap 1100 Series

The NorSap 1100 offers a contemporary design with high comfort that is suitable for marine environments.

The chair is a solid and stylish chair with adjustable features to ensure optimum comfort. Elegant controls have been ergonomically designed for ease of use. The sitting experience provides the comfort you deserve in a demanding environment.

Features & Functions

- Height adjustable
- Horizontal slide rails
- Friction free swivel turn with lock
- Spring loaded flip back arm rests
- Fully reclining back rest
- Flip up foot rest

Optional

- Custom color combinations
- Deck rail mounting
- Lumbar support
- Extra-long sliding rails
- 5-star base
- Additional seat cover
- Chair top delivery for mounting on a bench
- Logo embroidery
- Additional equipment mounted in the arm rests
- Seat mounted foot rest
Flange based chairs with gas dampened height adjustable column

<table>
<thead>
<tr>
<th>Article Number</th>
<th>Description</th>
<th>Sitting Height Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>5025</td>
<td>NorSap 1100 with no foot rest</td>
<td>15 - 19” (390 - 490mm)</td>
</tr>
<tr>
<td>5050</td>
<td>NorSap 1100</td>
<td>20 - 27” (510 - 690mm)</td>
</tr>
<tr>
<td>5075</td>
<td>NorSap 1100</td>
<td>25 - 36” (630 - 920mm)</td>
</tr>
<tr>
<td>5080</td>
<td>NorSap 1100 w/5-star no foot rest</td>
<td>16 - 20” (410 - 510mm)</td>
</tr>
<tr>
<td>5083</td>
<td>NorSap 1100 w/5-star</td>
<td>21 - 28” (530 - 710mm)</td>
</tr>
<tr>
<td>5085</td>
<td>NorSap 1100 w/5-star Ø 23.6” (600mm)</td>
<td>26 - 37” (650 - 940mm)</td>
</tr>
</tbody>
</table>

Other Solutions

<table>
<thead>
<tr>
<th>Article Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5085</td>
<td>NorSap 1100 Chair top, no column</td>
</tr>
<tr>
<td>R-0077</td>
<td>Wheel Kit for NorSap 5-star Base</td>
</tr>
</tbody>
</table>

All fixed height columns can be cut to desired sitting height. If nothing else is stated, the chair will be delivered with black leather upholstery.
The NorSap 1500 series chair is the perfect solution for demanding jobs.

This chair is the most used and tested chair in our product range. Designed with excellent seating comfort and many standard features, this model is a perfect chair for rough environments.

Features & Functions

- Dampened height adjustable column
- Adjustable foot rest
- Adjustable back rest and seat
- Forward/aft adjustment of seat
- The seat, foot rest and arm rests folds up
- Chair swivels 360°

Optional

- Custom equipment in arm rests
- Custom color combinations
- Deck rail mounting
- Electric Deck rails
- Lumbar support
- Extra-long sliding rails
- 5-star base
- Chair top delivery for mounting on a bench
- Logo embroidery
- Tiltable arm rest
- Additional seat cover, fabric or water-repellent

Model shown: 6510
## Article Number and Description

<table>
<thead>
<tr>
<th>Flange mounted chairs (to be mounted on deck or deck rail)</th>
<th>Sitting Height Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>6500 -SO/-HV</strong> NorSap 1500 with gas dampened height adjustable column</td>
<td>28 - 36” (720 - 920mm)</td>
</tr>
<tr>
<td><strong>6510 -SO/-HV</strong> NorSap 1500 with gas dampened height adjustable column</td>
<td>26 - 31” (670 - 800mm)</td>
</tr>
<tr>
<td><strong>6511</strong> NorSap 1500 with electric height adjustable column</td>
<td>28 - 36” (720 - 920mm)</td>
</tr>
<tr>
<td><strong>6520 -SO/-HV</strong> NorSap 1500 with gas dampened height adjustable column</td>
<td>25 - 29” (630 - 730mm)</td>
</tr>
<tr>
<td><strong>6400 -SO/-HV</strong> NorSap 1500 with fixed column</td>
<td>21 - 35” (530 - 880mm)</td>
</tr>
<tr>
<td><strong>6405</strong> NorSap 1500 with fixed column, no foot rest</td>
<td>16 - 35” (410 - 880mm)</td>
</tr>
</tbody>
</table>

Charcoal gray powder coated is standard, **SO**...Black powder coat, **HV**... White powder coat.

## 5-star base chairs (free-standing office chair, optionally fixed to the deck)

| **6535** NorSap 1500 with gas dampened adjustable column | 30 - 37” (750 - 940mm) |
| **6530** NorSap 1500 with gas dampened adjustable column | 27 - 32” (690 - 820mm) |
| **6525** NorSap 1500 with gas dampened adjustable column | 26 - 30” (650 - 750mm) |
| **6411** NorSap 1500 with fixed column, no foot rest | 16” (410mm) |
| **6410** NorSap 1500 with fixed column | 16” (410mm) |
| **R-0077** Wheel Kit for NorSap 5-Star Base | |

All fixed height columns can be cut to desired sitting height.
If nothing else is stated, the chair will be delivered with black leather upholstery.

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**Gas strut adjustable back rest: 78° - 54°**

**Arm rests are 15° adjustable**

**Working area of the upper part of the chair Ø640 mm / foot rest Ø1200 mm - Weight 40 Kg**

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**Heavy duty 5-star base with foot rest ring**

*Contact Imtra for details*

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norsap.com
NorSap 1600 Standard

The NorSap 1600 series chair is a robust comfortable range - perfectly suited for demanding environments, compact in size and easy to install.

This chair has spacious arm rests that offer room for internal cabling and installation of equipment and accessories. User-friendly buttons for height and back rest adjustments are conveniently located on the arm rest.

Optional
- Fully reclining back
- Leather, fabric, or combinations
- Arm rest equipment
- Seat belts
- Communication
- Lumbar support
- Deckrails
- Logo

Black Leather back with Round column

Aluminum back with Flat Oval column
<table>
<thead>
<tr>
<th>Article Number</th>
<th>Description</th>
<th>Sitting Height Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>8520</td>
<td>NorSap 1600 with upholstered back, round column</td>
<td>24.8 - 28.7” (63 - 73cm)</td>
</tr>
<tr>
<td>8510</td>
<td>NorSap 1600 with upholstered back, round column</td>
<td>26.4 - 31.5” (67 - 80cm)</td>
</tr>
<tr>
<td>8500</td>
<td>NorSap 1600 with upholstered back, round column</td>
<td>28.3 - 36.2” (72 - 92cm)</td>
</tr>
<tr>
<td>8620</td>
<td>NorSap 1600 with aluminum back, flat oval column</td>
<td>24.8 - 28.7” (63 - 73cm)</td>
</tr>
<tr>
<td>8610</td>
<td>NorSap 1600 with aluminum back, flat oval column</td>
<td>26.4 - 31.5” (67 - 80cm)</td>
</tr>
<tr>
<td>8600</td>
<td>NorSap 1600 with aluminum back, flat oval column</td>
<td>28.3 - 36.2” (72 - 92cm)</td>
</tr>
</tbody>
</table>

NorSap 1600 Standard M

<table>
<thead>
<tr>
<th>Article Number</th>
<th>Description</th>
<th>Sitting Height Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>8720</td>
<td>NorSap 1600 with aluminum back, flat oval column</td>
<td>24.8 - 28.7” (63 - 73cm)</td>
</tr>
<tr>
<td>8710</td>
<td>NorSap 1600 with aluminum back, flat oval column</td>
<td>26.4 - 31.5” (67 - 80cm)</td>
</tr>
<tr>
<td>8700</td>
<td>NorSap 1600 with aluminum back, flat oval column</td>
<td>28.3 - 36.2” (72 - 92cm)</td>
</tr>
</tbody>
</table>

---

NorSap 1600 Standard S

Gas strut adjustable back rest: 30°

NorSap 1600 Standard M

Gas strut adjustable back rest: 30°

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norpsap.com
The NorSap 1800 Active platform offers numerous options and configurations, that ensure it is fully adjustable.

This chair has a fully gas-spring actuated ergonomic system with six step-less adjustment features, ensuring optimal working positions for the user. This modular platform has been specially designed for optimal customer component integration in a way that ensures long-term operation and easy servicing.

<table>
<thead>
<tr>
<th>Article Number and Description</th>
<th>Sitting Height Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>NorSap 1800 Active M 8840</td>
<td>NorSap 1800 with fixed flat oval column 20.9 - 34.6” (53 - 88cm)</td>
</tr>
<tr>
<td>8820</td>
<td>NorSap 1800 with aluminum back, flat oval column 24.8 - 28.7” (63 - 73cm)</td>
</tr>
<tr>
<td>8810</td>
<td>NorSap 1800 with aluminum back, flat oval column 26.4 - 31.5” (67 - 80cm)</td>
</tr>
<tr>
<td>8800</td>
<td>NorSap 1800 with aluminum back, flat oval column 28.3 - 36.2” (72 - 92cm)</td>
</tr>
<tr>
<td>NorSap 1800 Active L 8860</td>
<td>NorSap 1800 with fixed XL column, with foot rest 27.6” (70cm)</td>
</tr>
<tr>
<td>8865</td>
<td>NorSap 1800 with fixed XL column, without foot rest 17.7” (45cm)</td>
</tr>
</tbody>
</table>

Norsap 1800 Active M

- **8840**: Fixed flat oval column. Starting from 20.9 - 34.6” (53-88cm)
- **8820**: Aluminium back. Flat oval column 24.8 - 28.7” (63-73cm)
- **8810**: Aluminium back. Flat oval column 26.4 - 31.5” (67-80cm)
- **8800**: Aluminium back. Flat oval column 28.3 - 36.2” (72-92cm)

Norsap 1800 Active L

- **8860**: Fixed XL column. Height 27.6” (70cm) with foot rest
- **8865**: Fixed XL column. Height 17.7” (45cm) without foot rest
The NorSap 4000 Impulse is a large modular based platform offering endless combinations and options.

This chair has a new electric plug and play system that ensures safe, easy-to-use maintenance. The design allows full integration of client components and equipment and ensures long-term operation. Every part of the arm and leg can be significantly sized up and down, allowing true accommodation for 90% of users. In order to keep it simple, the NorSap Quicksize function, enables all six electric motors to simultaneously adjust arm and leg parameters based on your height, making it a breeze to RESET and RESIZE the operator’s chair after the previous shift.

Contact Imtra for additional information.

<table>
<thead>
<tr>
<th>Article Number</th>
<th>Description</th>
<th>Sitting Height Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>8940</td>
<td>NorSap 4000 Medium tiltable arm rest with foot rest and fixed XL column</td>
<td>27.6” (70cm)</td>
</tr>
<tr>
<td>8950</td>
<td>NorSap 4000 Large arm rests with height adjustable XL column</td>
<td>23.6 - 34.3” (60 - 87cm)</td>
</tr>
</tbody>
</table>

As an add-on to NorSap Quicksize, the chair may be fitted with a NorSap Personal Memory panel that allows up to four unique save slots for any combination of chair adjustments.
1500 Series Arm Rest Equipment

5901H / 5901V
Arm rest with casing for Kamewa™ joystick.

5902H / 5902V
Arm rest with plate for mouse trackball. (Holes: 55 x 55 mm).

5903H / 5903V
Arm rest with fittings for trackball from Kelvin Hughes.

5904H / 5904V
Arm rest with casing Ø60 mm for small joystick.

5905
Arm rest with fittings for removable and adjustable keyboard table. Complete set (two arm rests).

5906H / 5906V
Arm rest with casing for four (4) mouse trackballs.

5907H / 5907V
W=200 mm
Arm rest fitting for combining mouse trackball and joystick.

5908H / 5908V
Arm rest with casing Ø60 for small joystick and mouse trackball pad.

5909H / 5909V
Arm rest with casing Ø100 mm for joystick.

5910H / 5910V
Arm rest with casing Ø100 for joystick and mouse trackball pad.

5911H / 5911V
Arm rest with mounting block. (Holes: 34, 6 x 20 mm).

5912H / 5912V
W=250 mm
Arm rest fitting for combining mouse trackball and joystick.

5950H / 5950V
Extra wide arm rest with 135 x 135 mm holder.

5952H / 5952V
Extra wide arm rest with monitor holder combined Ø60 joystick holder.

5954H / 5954V
Extra wide arm rest with height adjustable controller box. (180 x 140 x 190 mm).

5955H / 5955V
ECO 600 Joystick holder.

5907
Arm rest with casing Ø60 mm for small joystick.

5908
Arm rest with casing Ø100 mm for joystick.

5909
Arm rest with casing Ø60 for small joystick and mouse trackball pad.

H= right hand / V= left hand
Joysticks are not supplied with any model.
1000 Series Arm Rest Equipment

5801H / 5801V
Arm rest with casing for Kamewa joystick.

5802H / 5802V
Arm rest with plate for mouse trackball.

5804H / 5804V
Arm rest with casing Ø60 mm for small joystick.

5805 (both arm rests)
Arm rest with fittings for adjustable keyboard table.

5806H / 5806V
Arm rest with casing Ø60 mm for small joystick and mouse trackball pad.

5807H / 5807V
Arm rest with casing Ø100 mm for joystick but without trackball pad.

5808H / 5808V
Arm rest with casing Ø100 mm for joystick and mouse trackball pad.

5809H / 5809V
Arm rest with casing for four (4) mouse trackballs.

5810H / 5810V W=200 mm
Arm rest fitting for combining mouse trackball and joystick.

5811H / 5811V W=250 mm
Arm rest fitting for combining mouse trackball and joystick.

5812H / 5812V W=250 mm
Arm rest with mounting block. (Holes: 35 x 20 mm)

5813H / 5813V
Cup holder.

5816H / 5816V
ECO 600 Joystick holder.

6803H
Right hand note pad board. Combine with i.e. a cup holder. Can also be a stand alone arm rest.

5801H (both arm rests)
Arm rest with fittings for adjustable keyboard table.

5804H / 5804V Arm rest with plate for mouse trackball.

5805 (both arm rests)
Arm rest with fittings for adjustable keyboard table.

5806H / 5806V
Arm rest with casing Ø60 mm for small joystick and mouse trackball pad.

5807H / 5807V
Arm rest with casing Ø100 mm for joystick but without trackball pad.

5808H / 5808V
Arm rest with casing Ø100 mm for joystick and mouse trackball pad.

5810H / 5810V W=200 mm
Arm rest fitting for combining mouse trackball and joystick.

5811H / 5811V W=250 mm
Arm rest fitting for combining mouse trackball and joystick.

5812H / 5812V W=250 mm
Arm rest with mounting block. (Holes: 35 x 20 mm)

H= right hand / V= left hand

Joysticks are not supplied with any model.
Additional Equipment

**NorSap 1000 Chair Seat Covers**
- 6041 Seat Cover Water Repellent
- 6050 Seat Cover Fabric

**NorSap 1500 Chairs Seat Covers**
- 6451 Seat Cover Water Repellent
- 6470 Seat Cover Fabric

**Seat Belts**
- 6460 4 Point Seat Belt
- 6461 2 Point Seat Belt

**Foot Rest**
- 6340 Foot Rest Loop NS1500
- 6030 Foot Rest Loop NS1000

**Double Foot Rest for Shuttle Service Boats**
- 6215 1500 series Ø150 mm
- 6214 1000 series Ø100 mm
- 6209 800 series Ø80 mm

**Binocular Holder**
- 6800 To be fitted on the back of the back rest

**Document Holder**
- 6905 To be mounted on the back of the back rest

**Communication**
- 6487 Microphone
- 6486 Loudspeaker 8 Ω
- 6489 Microphone mounting bracket
The NorSap MX system allows you to customize an operating chair with a large range of arm rest and screen holder modules.

- Fully reclining back
- System is based on interchangeable modules that can be combined to suit your requirements
- Thoroughly tested mechanical solutions
- Easy access to installed equipment
- Developed to fulfill the requirements of maritime standards of operator chairs
- Focusing on ergonomics, line of sight, security, function and mechanical durability
- Electrical and manual adjustment of the seat and other parts affecting the operator
- Individual adjustment to meet the strongest demands of ergonomics for the operator

Other options available on our website www.imtra.com

<table>
<thead>
<tr>
<th>Article Number and Description</th>
<th>Sitting Height Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>6770 NorSap 3500 Base Unit, no arm rests w/multi adjustable seating frame</td>
<td>26 - 37” (670 - 940mm)</td>
</tr>
<tr>
<td>6780 NorSap 2500 Base Unit, no arm rests</td>
<td>24 - 34” (600 - 870mm)</td>
</tr>
</tbody>
</table>
Basic Deck Rails

Smart deck rails with low height and an elegant design do not take away from the existing deck. Still at a favorable cost.

- Easy to fit, comes with release handle to be mounted on seat top
- Concealed wiring (does not apply to the NorSap 800 chairs)
- Can be delivered in customized lengths and combined with two carriage wagons
- Manufactured in combination of stainless steel and aluminium
- For rougher use we recommend the Standard deck rails

### Article Number | Dimensions
--- | ---
Long top-mounted Basic Deck Rail for the NorSap 800 series
6676-1000 | 39" (1,000mm)
6676-1500 | 59" (1,500mm)
6676-2000 | 79" (2,000mm)
6676-2500 | 98" (2,500mm)
6676-3000 | 118" (3,000mm)

Long flush-mounted Basic Deck Rail for the NorSap 800 series
6677-1000 | 39" (1,000mm)
6677-1500 | 59" (1,500mm)
6677-2000 | 79" (2,000mm)
6677-2500 | 98" (2,500mm)
6677-3000 | 118" (3,000mm)

Long top-mounted Basic Deck Rail for the NorSap 1000 series
6652-1000 | 39" (1,000mm)
6652-1500 | 59" (1,500mm)
6652-2000 | 79" (2,000mm)
6652-2500 | 98" (2,500mm)
6652-3000 | 118" (3,000mm)

Long flush-mounted Basic Deck Rail for the NorSap 1000 series
6653-1000 | 39" (1,000mm)
6653-1500 | 59" (1,500mm)
6653-2000 | 79" (2,000mm)
6653-2500 | 98" (2,500mm)
6653-3000 | 118" (3,000mm)

Long top-mounted Basic Deck Rail for the NorSap 1500 and 2000 series
6650-1000 | 39" (1,000mm)
6650-1500 | 59" (1,500mm)
6650-2000 | 79" (2,000mm)
6650-2500 | 98" (2,500mm)
6650-3000 | 118" (3,000mm)

Long flush-mounted Basic Deck Rail for the NorSap 1500 and 2000 series
6651-1000 | 39" (1,000mm)
6651-1500 | 59" (1,500mm)
6651-2000 | 79" (2,000mm)
6651-2500 | 98" (2,500mm)
6651-3000 | 118" (3,000mm)

The different mounting solutions

**Top-Mounted Basic Deck Rail**

- 52
- 15
- 2 x 105
- 493

**Flush-Mounted Basic Deck Rail**

- 38
- 14.2
- Mounting Holes
- 380 +/- 0.5
- 2 x 72 +/-
- 446

BLACK = physical measurements of the product
RED = recommended mounting measurements
GREEN = recommended measurements of the cut out of the deck when flush option. All measurements in MM.
Stable & Solid Deck Rails

High quality deck rails designed for all environments. Can be released and locked from sitting position.

- Manufactured in anodized aluminium with rubber coated center plate
- Comes with release handle to be mounted on seat top
- Top-mounted or flush-mounted in deck
- Can be delivered in customized lengths
- Can be combined with two carriage wagons

<table>
<thead>
<tr>
<th>Article Number</th>
<th>Dimensions</th>
<th>Long top-mounted narrow Basic Deck Rail for the 800/1000 series</th>
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<tbody>
<tr>
<td>6250-1100UL</td>
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10 reasons to do business with NorSap and our partners

NorSap has over 40 years of experience in the marine market, is economically solid and because of this we can be a long term partner.

NorSap has increased the focus and resources related to product development to maintain the market leader position for helmsman chairs.

The owners of NorSap have a long term view of the ownership and are willing to make necessary investments to maintain the no. 1 position.

NorSap is not bureaucratic and the owners are active in the daily business, so fast decisions can be made when necessary.

At NorSap, we produce many of the parts ourselves, have a highly skilled work force and years of experience. All mounting is done at NorSap. This provides confidence that the supplied products are of excellent quality.

NorSap has a construction department which makes it possible, in a short time, to customize solutions when needed.

NorSap has advanced machinery for prototype production so that you, as a customer, can see a vital part “live” when this is needed.

NorSap has very limited problems with sold products, but if so; these are handled fast and professionally to help the end user in a best possible way.

Excellent international dealer network.

We are a high quality supplier you can believe in and want to have a long-term relation with.