



ROTATOR

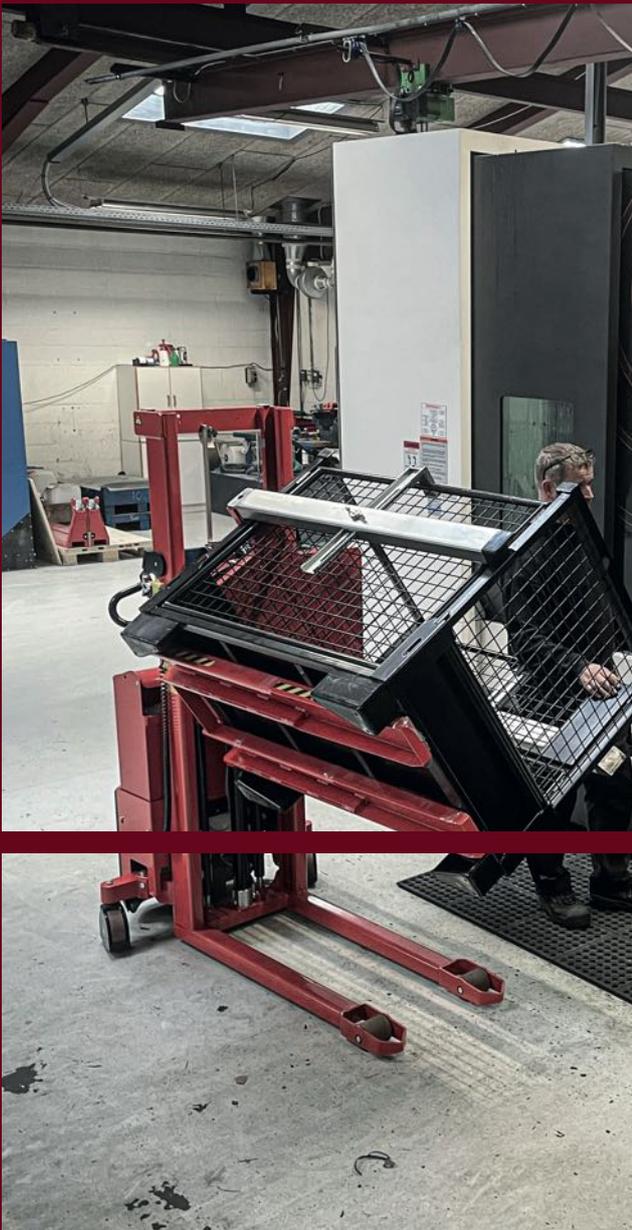
ELFRA/ELFSRA - ELFR/ELFSR
SELFRA/SELSRA - SELFR/SELFSR



ADJUSTABLE BOX HOLDERS

NON-ADJUSTABLE BOX HOLDERS

MULTIPURPOSE CARRIAGE



Rotator - lift and rotate boxes and crates

The rotator has two main purposes: to empty boxes and crates; and to improve the workplace ergonomics.

To empty a box, the 360° rotate function enables a complete emptying of the content. The rotator can be adjusted to your specific box dimensions and it can be equipped with a chute to carefully transfer items from one container to another.

This eliminates the need for manual and physical material handling, which greatly improves workplace efficiency.

To improve ergonomics, the rotator is ideal for creating ergonomically correct working positions for your employees. The lift and rotate function enables the workers to access the contents easily in a proper working height, without having to bend down in awkward positions.

No matter a heavy or light load, repetitive physical manual

processes come with high risks of strain-related injuries. By ensuring a proper working height, you can reduce the risk greatly, while also improving efficiency.

The rotator works well in all types of industries, and if you have special needs we will customise it to match your specific situation 100%.



Clamps and box holders adapted to individual needs

Controlled rotation start/stop



Intuitive screen to preset rotation angles and speed



Optional extra: side support plates

Rotate function 360° (one adjustable stop in every side)



Remote control for lifting, lowering, and rotation

Low power consumption = long battery life time



Ergonomically correct handle

Rotator with adjustable box holders (ELFRA/SELFRA - ELFSRA/SELFSRA)

Do you have boxes and crates in different sizes and dimensions? Then the rotator with adjustable box holders is the right choice for you.

The rotator is equipped with a small handle on the side, which is used to manually adjust the width between the box holders to match the dimensions of a given container.

This way you can use one machine to lift and rotate different containers.

The rotator can lift 2200 lbs. Also when rotating beyond 90°. Clamps are necessary when rotating beyond 60°.

We use a special oil for all products, which is tested in cold atmospheres down to at least -10 degrees C.

Rotator with non-adjustable box holders (ELFR/SELFR + ELFSR/SELFSR)

If you handle standard sized boxes or crates, you need the rotator with non-adjustable box holders.

The rotator is constructed to handle standard containers, which it can lift and rotate to either empty or to a proper working height.

Depending on your given work situation and the load of the containers, you will need one or two sets of box holders to ensure safe and efficient material handling. **With loads above 1100 lbs, two sets are necessary.**

The rotator can lift 2200 lbs. Also when rotating beyond 90°.

STANDARD FEATURES

Electric

- ✓ Hand brake
- ✓ Remote control
- ✓ Foot protector

Fully powered

- ✓ Automatic hand brake
- ✓ Remote control
- ✓ Foot protector

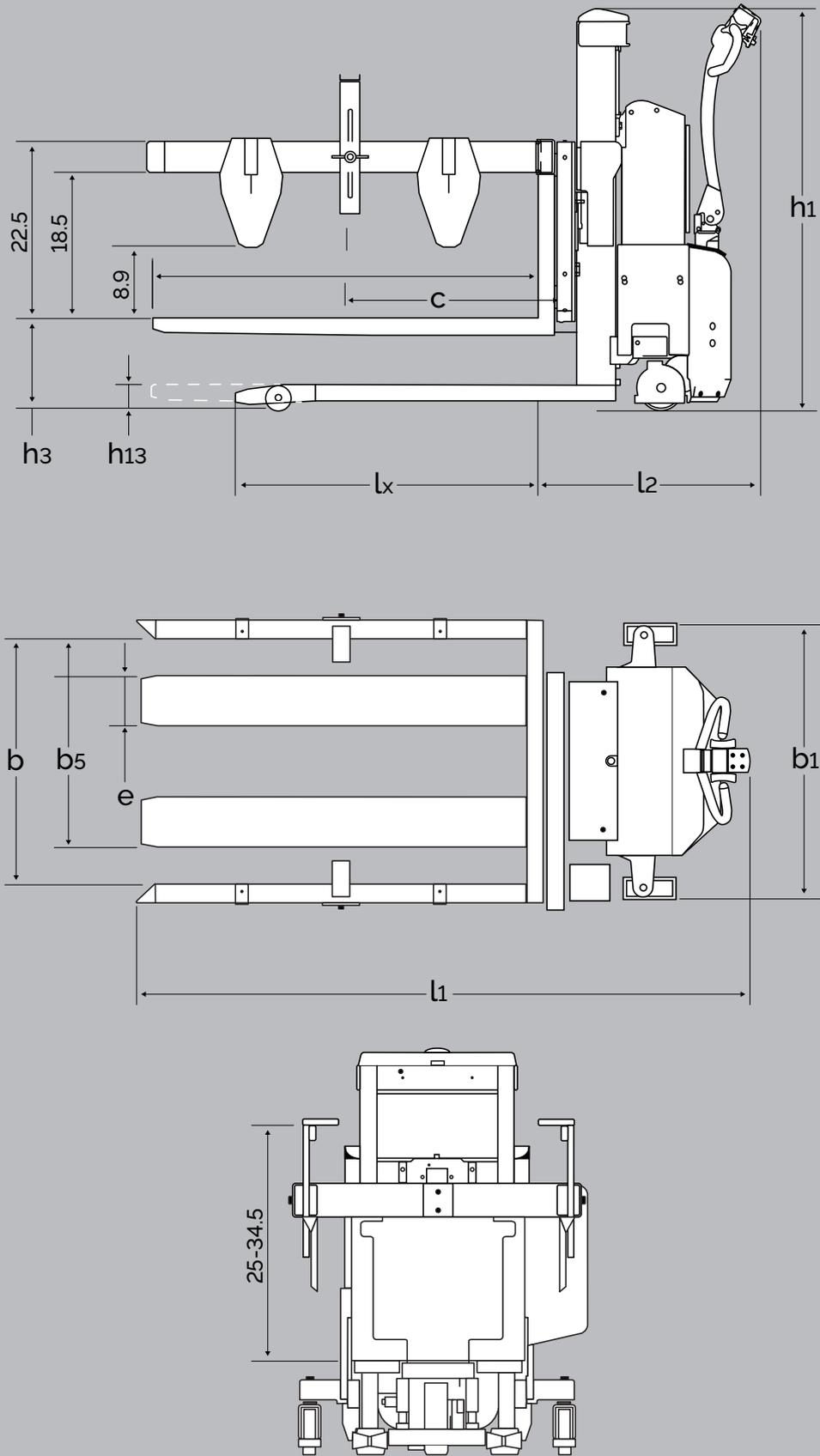


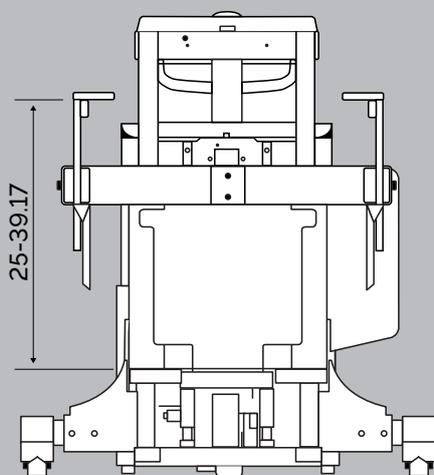
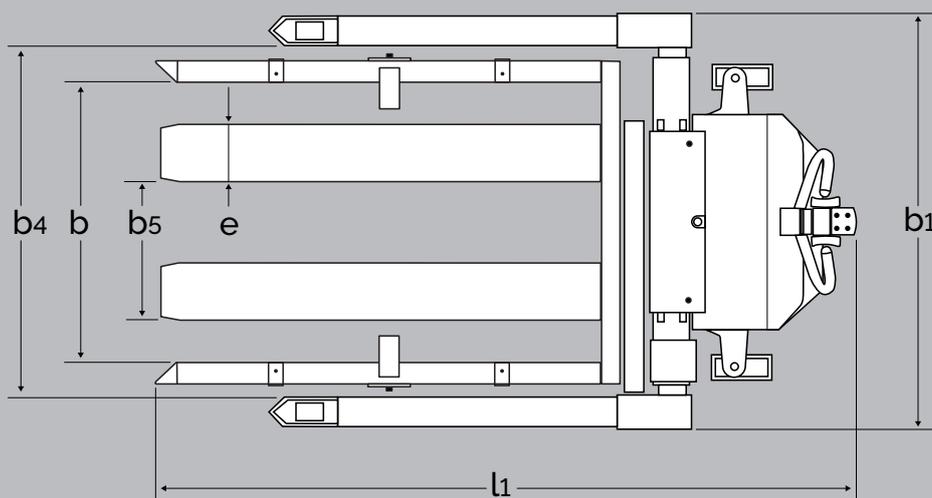
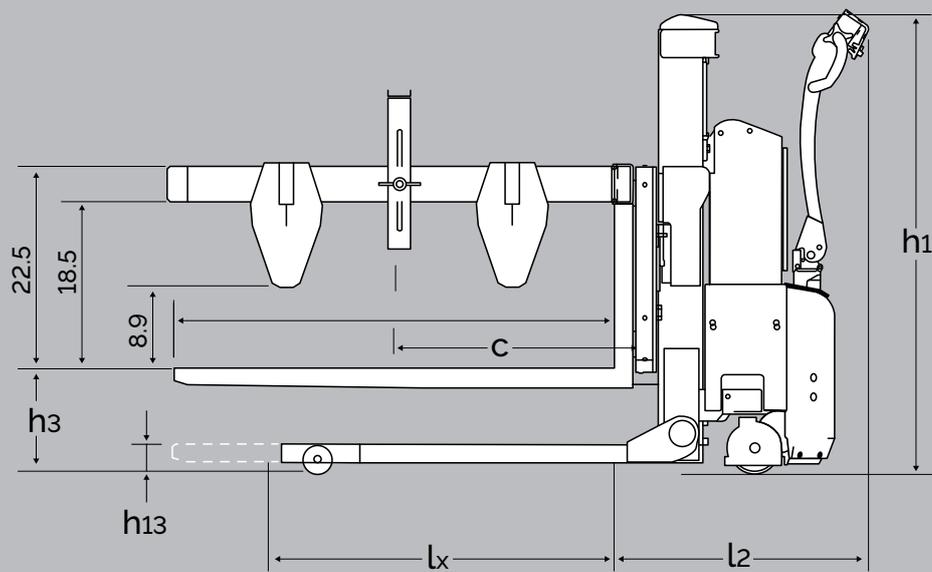


Work in practice

The rotator works well across all industries. The multiple options and attachments make it applicable and a valuable solution in all sorts of material handling situations. Some of our customers include:

- **Bakeries** - to handle large batches of dough in bakeries without manual efforts.
- **Repackaging** - to efficiently pour oilseeds into an industrial blender.
- **Postal office** - to empty large postal cages onto sorting tables without manual efforts
- **Mirror company** - to ensure safe and ergonomic access to fragile mirrors in manufacturing.
- **Automobile industry** - to pour and transfer small components between different containers in a smart and time-efficient way.
- **Food Industry/repacking candy** - to empty big bins of candy into hoppers to repack contents into smaller bags.
- **Pharmaceutical** - to empty dry ice onto medicine.



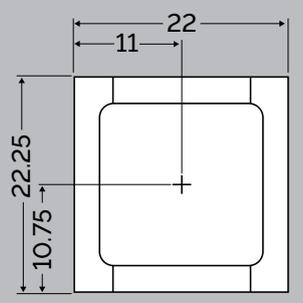
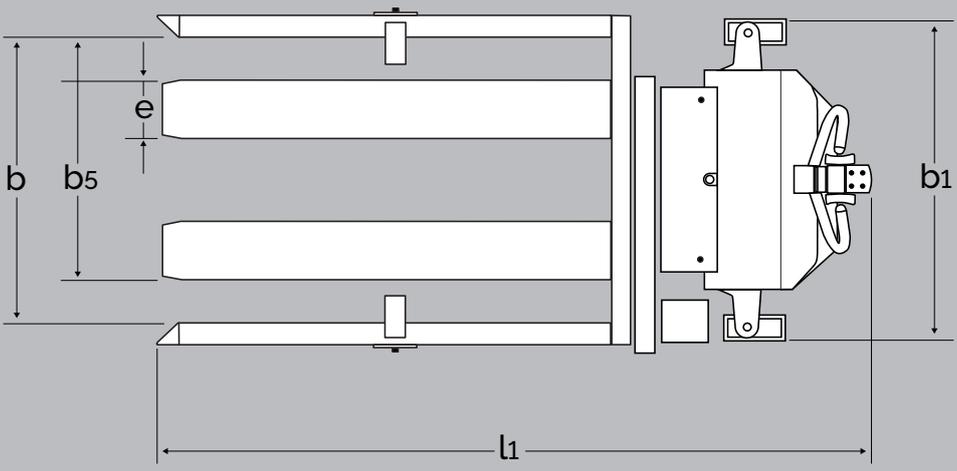
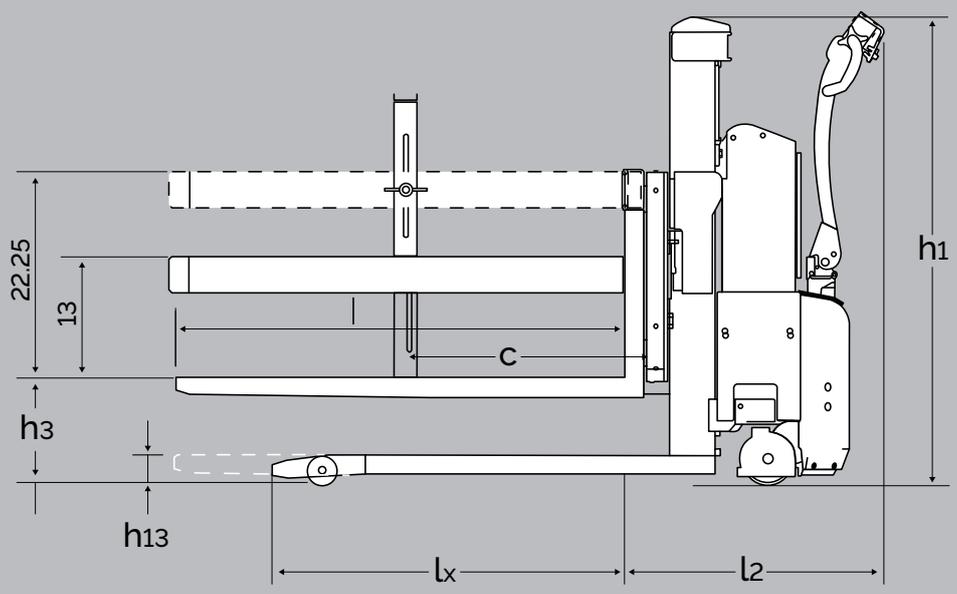


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|-------------------------------|------------------|------------------|------------------|------------------|------------------|
| PRODUCT (measured in inch) | ELFRA SELFRA | ELFRA SELFRA | ELFRA SELFRA | ELFRA SELFRA | ELFRA SELFRA |
| | ELFSRA SELSRA | ELFSRA SELSRA | ELFSRA SELSRA | ELFSRA SELSRA | ELFSRA SELSRA |

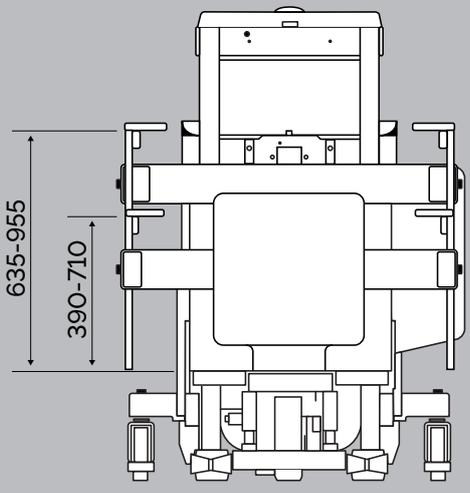
ROTATOR WITH ADJUSTABLE BOX HOLDERS

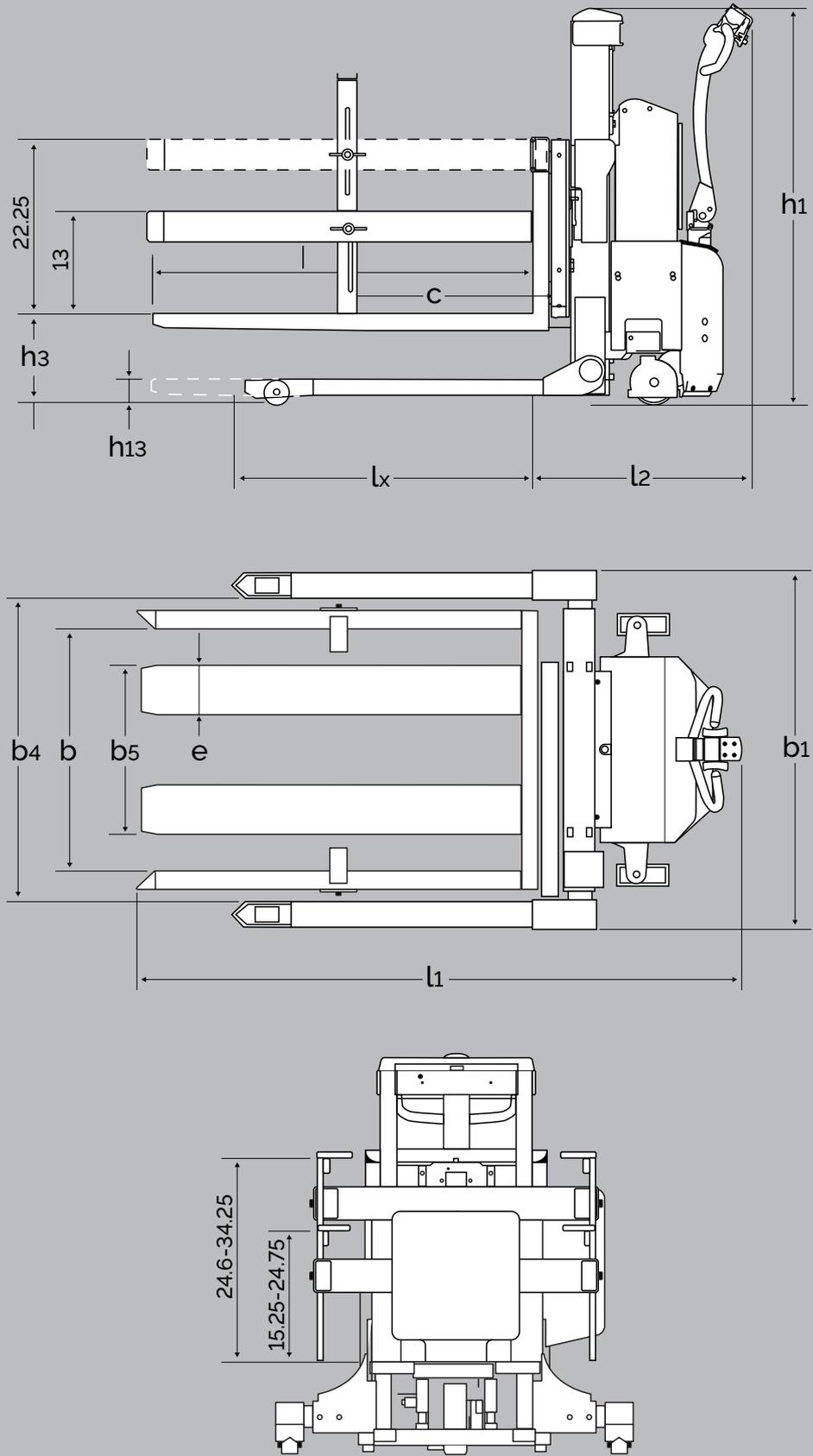
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|---|----------|--|-----------------------------|------------------------------|------------------------------|------------------------------|
| Capacity i lbs | | 2200 lbs* | 2200 lbs* | 2200 lbs* | 2200 lbs* | 2200 lbs* |
| Lifting height | h_3 | 36 | 47 | 55 | 63 | 75 |
| For length | l | 49.25 | 49.25 | 49.25 | 49.25 | 49.25 |
| Overall height | h_1 | 52.5 | 60 | 68 | 76 | 88 |
| Overall width | b_1 | 36.75, 35 (ELFRA / SELFRA distance between steering wheels 33.5 inch) / 6.5 +b4 | | | | |
| Width between legs | b_4 | 12.4, 17.1 / 33.5-37, 37-44.25, 44.25-51.5, 49-56** | | | | |
| Fork span | b_5 | 22, 27 | | | | |
| Length without forks | l_2 | 23.25, 23.85 / 23.25, 27.7 | | | | |
| Overall length with 49.25 forks | l_1 | 79, 77 / 79, 77 | | | | |
| Lowered height, forks | h_{13} | 3.25, 3.5/3.25, 3.5 | 3.5 | | | |
| Load centre | c | 1/2 | | | | |
| Fork width | e | 6.5 | | | | |
| Run-in length | l_x | 41 | | | | |
| Gangway (pallet 47 x 31.5) | A_{st} | 90***, 86.5*** / 90***, 86.5*** | | | | |
| Turning angle of wheels | | 180°, 210° / 180°, 210° | | | | |
| Motor | | SELFRA / SELFSRA 1,2 kW 24 V speed control electronically variable | | | | |
| Driving speed with/without load | | SELFRA / SELFSRA below 19.5" lift: 3.2/3.4 mph, over 19.5" lift: 1.8/2.4 mph | | | | |
| Pump motor | | 1,1 kW - 12 V / 1,2 kW - 24 V | | | | |
| Lifting speed with/without load | | ELFRA / ELFSRA 2"/2.75" per sec, SELFRA / SELFSRA 2.75"/4.75" per sec | | | | |
| Lowering speed with/without load | | ELFRA / ELFSRA 4.75"/2.75" per sec, SELFRA / SELFSRA 4.75"/2.75" per sec | | | | |
| Max torque | | 700 Nm | | | | |
| Tilt function | | 360° (with one adjustable stop in every side) (Standard 45° to every side) | | | | |
| Tilt area | | Forks 16-35.5 (h_3) | | | | |
| Tilt time (0-180°) | | Minimum 30 sec (adjustable) | | | | |
| Electric motor for tilt function | | ELFRA / ELFSRA 12 V - 24 A SELFRA / SELFSRA 24 V - 12 A | | | | |
| Motor specifications | | 0,2 kW, 3000 r/m Permanent magnet motor, IP 44, class F. Gear 1:228 | | | | |
| Operation | | Not continuously (S2=10 min) | | | | |
| Weight in lbs (without battery) | | 820, 1105/ 953, 1237 lbs | 862, 1147/ 995, 1279 lbs | 875, 1160/ 1007, 1292 lbs | 884, 1169/ 1071, 1301 lbs | 902, 1186/ 1034, 1319 lbs |
| Adjustable box holders with/without clamps (optional extra) | b | The box holders can be adjusted for box widths from 800 to 1200mm Box holders with clamps can hold boxes of heights between 635 and 955 mm, when tilted | | | | |

* Maximum 2200 lbs when the load center is maximum 3.15" from the rotation centre.
The load capacity that can be tilted is reduced, the larger the distance is between load centre of the load and rotation centre.
** Width between straddle legs of more than 51.5", max. capacity 1760 lbs.
*** Tests show that 67" is enough (on straddle model it depends on width between the straddle legs).



Multi-purpose carriage





| | | | | | |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| PRODUCT (measured in inch) | ELFR SELFR | ELFR SELFR | ELFR SELFR | ELFR SELFR | ELFR SELFR |
| | ELFSR SELFSR | ELFSR SELFSR | ELFSR SELFSR | ELFSR SELFSR | ELFSR SELFSR |

ROTATOR WITH NON-ADJUSTABLE BOX HOLDERS

| | | | | | | |
|--|----------|---|-----------------------------|------------------------------|------------------------------|-------------------------------|
| Capacity i lbs | | 2200 lbs* | 2200 lbs* | 2200 lbs* | 2200 lbs* | 2200 lbs* |
| Lifting height | h_3 | 36 | 47 | 55 | 63 | 75 |
| For length | l | 49.25 | 49.25 | 49.25 | 49.25 | 49.25 |
| Overall height | h_1 | 52.5 | 60 | 68 | 76 | 88 |
| Overall width | b_1 | 36.75, 35 (ELFR / SELFR distance between steering wheels 33.5 inch) / 6.5 +b4 | | | | |
| Width between legs | b_4 | 12.4, 17.1 / 33.5-37, 37-44.25, 44.25-51.5, 49-56** | | | | |
| Fork span | b_5 | 22, 27 | | | | |
| Length without forks | l_2 | 23.25, 23.85 / 23.25, 27.7 | | | | |
| Overall length with 49.25 forks | l_1 | 79, 77 / 79, 77 | | | | |
| Lowered height, forks | h_{13} | 3.25, 3.5/3.25, 3.5 | 3.5 | | | |
| Load centre | c | 1/2 | | | | |
| Fork width | e | 6.5 | | | | |
| Run-in length | l_x | 41 | | | | |
| Gangway (pallet 47 x 31.5) | A_{st} | 90***, 86.5*** / 90***, 86.5*** | | | | |
| Turning angle of wheels | | 180°, 210° / 180°, 210° | | | | |
| Motor | | SELFR / SELFSR 1.2 kW 24 V speed control electronically variable | | | | |
| Driving speed with/without load | | SELFR / SELFSR below 19.5" lift: 3.2/3.4 mph, over 19.5" lift: 1.8/2.4 mph | | | | |
| Pump motor | | 1.1 kW - 12 V / 1.2 kW - 24 V | | | | |
| Lifting speed with/without load | | ELFR / ELFSR 2"/2.75" per sec, SELFR / SELFSR 2.75"/4.75" per sec | | | | |
| Lowering speed with/without load | | ELFR / ELFSR 4.75"/2.75" per sec, SELFR / SELFSR 4.75"/2.75" per sec | | | | |
| Max torque | | 700 Nm | | | | |
| Tilt function | | 360° (with one adjustable stop in every side) (Standard 45° to every side) | | | | |
| Tilt area | | Forks 16-35.5 (h_3). Multi-purpose carriage 27-46.5 from floor to rotation centre | | | | |
| Tilt time (0-180°) | | Minimum 30 sec (adjustable) | | | | |
| Electric motor for tilt function | | ELFR / ELFSR 12 V - 24 A SELFR / SELFSR 24 V - 12 A | | | | |
| Motor specifications | | 0.2 kW, 3000 r/m Permanent magnet motor, IP 44, class F. Gear 1:228 | | | | |
| Operation | | Not continuously (S2=10 min) | | | | |
| Weight in lbs (without battery) | | 820, 1105/ 953, 1237 lbs | 862, 1147/ 995, 1279 lbs | 875, 1160/ 1007, 1292 lbs | 884, 1169/ 1071, 1301 lbs | 902, 1186/ 1034, 13.19 lbs |
| Box holder with/without clamps (optional extras) | | For box widths of 31.5", 33.5" or 39.5" by a fork span of 22". For box widths of 39.5", 41.35" or 48" by a fork span of 27". Special arrangements for a maximum box width of 55" are possible. Box holders with clamps can hold boxes of heights between 15" and 34.25" when tilted. | | | | |

* Maximum 2200 lbs when the load center is maximum 3.15" from the rotation centre.
An extra set of box holders is necessary when lifting 1100-2200 lbs
The load capacity that can be tilted is reduced, the larger the distance is between load centre of the load and rotation centre.
** Width between straddle legs of more than 51.5", max. capacity 1760 lbs.
*** Tests show that 67" is enough (on straddle model it depends on width between the straddle legs).

SPECIFICATIONS - ROTATOR ELFR / SELFR & ELFSR / SELFSR