SKYLOTEC

# ActSafe Power Ascenders:
# BUYERS GUIDE


**SKYLOTEC develops unique lifting solutions and is the most experienced power ascender manufacturer in the world. As the global leader in this field, we have a complete range of products suitable for every lifting application.**

# THINGS TO CONSIDER WHEN BUYING A POWER ASCENDER

The SKYLOTEC ActSafe power ascenders are designed and intended for specific users and working operations. This guide should help identify the correct model of power ascender for each customer.

- **What type of user?**
- **What type of lifting tasks?**
- **What type of environment?**
- **The Products**
- **Service & Maintenance**
- **Case Study**

# WHAT TYPE OF USER?

- **What distances of travel are intended?**
  - Both Ascent & Descent distances should be considered
  - Shorter distances - multiple short lifts and rests?
  - Long lifting distances - continuous movement up or down?

- **How often is it used?**
  - Daily
  - Weekly
  - Monthly
  - Standby Rescue
  - How much experience do I have with power ascenders?

**Choose a larger and bigger ascender with more power for intensive use. If the ascender is too small it will expose the machine to more stress and unnecessary wear and tear.**

# WHAT TYPE OF LIFTING TASKS?

- **Single person use?**
  - Personal use by one person per machine per day
- **Multiple person use?**
  - Several people sharing a machine to transfer to a work site (Shuttling)
  - Multiple people using the machine at the same time (2 persons connected)
- **Material lifting – as a portable crane?**
  - Operate using AC mains power?
  - Distance of lfiting operation?
  - Frequency of lifting? (eg. Distance per half hour)
- **Remote Control Requirement?**
  - Is a remote control part of the rescue plan?
  - Range 50 m
  - Range 150 m
- **Rescue Requirement?**
  - Is a pick off scenario part of the rescue plan with 2 persons connected?

# WHAT TYPE OF ENVIRONMENT?

- **Environment?**
  - Indoor / Outdoor
  - Clean / Dirty
  - Offshore (Saltwater)
  - Humid or Wet Environment (IP55 / IP67)

- **Starting Temperature?**
  - Very Hot (The ambient temperature will affect the running time. In higher temperatures, the machines will overheat quicker, and will need to rest while they cool down.)
  - Very Cold (Li-ion batteries do not have the same performance in very cold environments)

- **Remote location?**
  - Is there access to AC power for charging batteries?

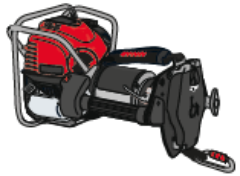
# THE PRODUCT RANGE

| ActSafe Power Ascenders | USER PROFILE | | | | | |
|---|---|---|---|---|---|---|
| | **DIY/ Hobby** | **Light professional usage** | **Professional usage** Occasional lifting | **Heavy Industry** Continuous lifting | **Rescue** | **Tactical access** |
| **INTENSITY OF USE** (maximum metres of travel per half hour) | – Handy men<br>– Gardening<br>– Hunting<br>– Sports | – Arborism<br>– Photography<br>– Entertainment/Theatre<br>– Scaffolding<br>– Route setting<br>– Confined space entry | – Rope access<br>– Rigging<br>– Inspection<br>– Cleaning<br>– Telecom<br>– Basic Building Maintenance (e.g. window cleaning) | – Wind<br>– Offshore<br>– Energy supply<br>– Construction<br>– Geotechnical<br>– Advanced Building Maintenance (e.g. glass lifting) | – Fire department<br>– Helicopter<br>– Paramilitary<br>– Mountain Rescue<br>– SAR<br>– Aid | – Military<br>– Police |
| Low (>100m*) | ICX | | | | RCX | TCX |
| Medium (100-200m*) | ACX/PMX | | | | | |
| High (200-300m*) | | | | | | |
| Very high (300-400m*) | | | | | | |
| Extreme (400-500m*) | | | | | | |

*Distances of travel with 100kg load, starting at 20 °C temperature.
Depending on environmental conditions the ascenders heat up and will need to cool down to continue operations.
Choose a larger and bigger ascender with more power for intensive use. If the ascender is too small it will expose the machine to more stress and unnecessary wear and tear.

# THE PRODUCT RANGE



| | ICX | ACX | RCX | PMX |
|---|---|---|---|---|
| **WLL** | 185 kg | 220 kg | 250 kg | 250 kg |
| **ROPE** | 11 mm | 11 mm | 6-11 mm | 11 mm |
| **BATTERY RANGE** | 230 m | 600 m | 600 m | 750 m |
| **IP RATING** | IP55 | IP55 | IP67 | N/A |
| **MAX. # PERSONS** | 1 | 2 | 2 | 2 |
| **ASCENT SPEED** | 0-24 m/min | 0-24 m/min | 0-24 m/min | 0-17 m/min |
| **REMOTE RANGE** | 50 m | 150 m | 150 m | N/A |
| **230V AC POWER** | No | Yes | Yes | No |
| **DISTANCE TO OVERHEAT *** | **100 m** | **520 m** | **520 m** | **N/A** |
| **TIME TO OVERHEAT *** | **4 mins** | **20 mins** | **20 mins** | **N/A** |

* Estimated first stop due to overheating with 100 kg load while running **continuously** at maximum speed, starting at 20 deg C

# SERVICE & MAINTENANCE

- SKYLOTEC recommends an annual service - **this is the maximum time period between inspections**!
  - ICX has some aluminium components (softer and lighter material)
  - ACX/RCX/PMX have stainless steel components (heavier and more durable material)

- More frequent servicing may be required depending on the amount of usage, the environment and the local regulations.

- Plan and budget to replace consumable friction based components depending on the amount of use.

# CASE STUDY

## SCENARIO: 40 m Dam Inspection – People Transfer (Sales Demonstration)

- Multiple people shuttling on 1x ICX (Potential Customers, Users and Skylotec Sales / Instructors).
- Running the Ascender unloaded via the Remote Control back to collect the next person for transfer.

## PROBLEM

- Overheated ICX after several successful transfers
- Team transfer interrupted to wait for machine to cool down

## SOLUTION

- Rest for 30 mins between transfers so equipment can recover.
- Use more than 1x ICX machine for intensive demo.
- Use ACX for this work method to transfer multiple people without overheating.

## ANALYSIS

- In reality, this job would most likely be executed by 2 engineers. This work procedure would be acceptable and within the specification for the for an ICX. The team transfer would happen at the start of the job, and the machine would have time to cool down before it was required to transfer the team back to the starting location. However, product demonstrations like this push the equipment much harder than they would be used on a daily job such as this.