

Evaluation of Core 7.5 and Talon Anchor

This memo outlines my personal findings in regards to the Core 7.5 and Talon Anchor. This is not intended as an endorsement by the San Diego Fire-Rescue Department or the City of San Diego however it was conducted as an effort to give unbiased feedback on a firefighter safety product to assist the manufacture make improvements on the current and future design of their PES.

The following criteria were applied to the evaluation of the Core 7.5 and Talon Anchor.

San Diego Fire-Rescue Department PES Requirements

- 1) System and all components must meet or exceed NFPA 1983 Standard on PES
- 2) Must work with our current and future turnout specifications and SCBA
- 3) Not interfere with FF mobility or add unnecessary weight, exterior belts, and straps
- 4) Contained within a single turnout pant pocket
- 5) Have a secondary attachment point that can be used for other functions
- 6) Easy of use and simple operation
- 7) Little or no special maintenance required
- 8) Cost effective

Daily Wear Test

The Core 7.5 and Talon Anchor in combination with a Fire Innovations Spokane Class 1 Harness (belt) has worn day in and day out to see how they feel and to find out if they effect the daily operation of firefighters.

The weight and size of the PES dos not interfere with medical aid, rescue, fire, or training and is comparable to other PES systems tested.

Function Test

Function test were performed on a second floor window “bailout prop” with a high point anchor/belay. All tests were performed in structure PPE with SCBA in operation.

Function Test Preformed
Easy of Remote anchor
Horizontal Travel
Deployment with Decent Device Inside Sill
Sill Hook – Drywall/Wood
Decent Control

All tests were still performed by multiple testers under a variety of conditions including PES saturated in water, blacked out face pieces, and wet gloves.

Function Test Results

Function Test	Components/Systems
Easy of Remote anchor	<p>Talon Anchor</p> <ul style="list-style-type: none">- This anchor had the high success rate in the remote anchor test under all conditions- The 7.5mm rope is easy to manipulate and feeds easily into the spine of the anchor creating a secure remote anchor.
Horizontal Travel	<p>Core 7.5</p> <ul style="list-style-type: none">- The rope feed is consistent and requires minimal effort to operate the handle with one hand. Keeping the other hand free to crawl or hold on to a tool.- There is no need to “feed” the rope though the Core 7.5.
Deployment with Decent Device Inside Sill	<p>Core 7.5</p> <ul style="list-style-type: none">- In our test of this portion of the evaluation we were unable to get the Core 7.5 stuck on the sill.- The handle is easy to operate in a variety of positions against the sill or the wall- All users were able to feather the fully weighted device over the window sill with little to no coaching or instruction.
Sill Hook – Drywall/Wood	<p>Talon Anchor</p> <ul style="list-style-type: none">- During window hook evolutions on drywall/wood frame this anchor had a 100% success rate when properly placed.

Tool Loop	<p>Talon Anchor</p> <ul style="list-style-type: none"> - The addition of the “Tool Loop” at the anchor attachment gives the user another anchor option - Most users preferred the tool option when anchoring at the window and commented that it provided a more secure anchor with a larger margin of error as compared to the Talon alone - The additional length of the loop did not cause any issues with any of the other evolutions or packing the system
Decent Control	<ul style="list-style-type: none"> - All testers were easily able to control the speed of decent using a combination of handle pull and hand position. - Positive control of the brake hand is vital as loss of control of the brake hand in combination with pulling the handle down will result in an uncontrolled decent, which is the case with most other PES systems

Overall Evaluation

The overall performance of the system improved during testing after the systems was “broken in”. I would recommend providing the end user with a break in procedure prior to placing the PES in service.

End user training needs to focus on two areas:

- Proper body position and hand placement for decent control
- Troubleshooting if stuck on window sill during remote anchoring

As with any PES proper training is key to safe and effective deployment should the need arise.

Thank you for the opportunity of evaluate this PES. How hope my feedback is helpful for you in improving this potentially lifesaving equipment for the fire service.