

PERIMETER

Protection Products

10 EFFICIENCY DRIVERS

BUILT INTO OUR SYSTEM



10 EFFICIENCY DRIVERS

EFFICIENCY DRIVERS

1. Post Install/Remove Speed
2. Stringing Cable Speed
3. Ten-Foot Centers
4. Re-usability
5. Debris Netting Base Install/Remove
6. Load-in Speed
7. Post-Pour Cable Reset
8. Seamless Safety across all Construction Stages
9. Wet Embeds
10. Fabricator Installation of Baseplates/embeds

10 EFFICIENCY DRIVERS

1. Post Install-Remove Speed

Perimeter Protection Products' posts install in just 11 seconds. And remove in just 11 seconds.

And these are the only tools you need to do it:



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2. Stringing Cable Speed

Workers can string or remove cable about as fast as they can walk, thanks to our unique cable guides.



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3. Ten-Foot Centers

Slab grabbers, angle irons and wood are on 8' centers, sometimes 6'. Perimeter's system is engineered for 10 foot centers. That means 20% fewer posts required for any project. For example, if the open perimeter of a building is 16,000 feet, it would require the deployment of 2,000 slab grabbers or angle irons, but only 1,600 Perimeter posts.



PERIMETER

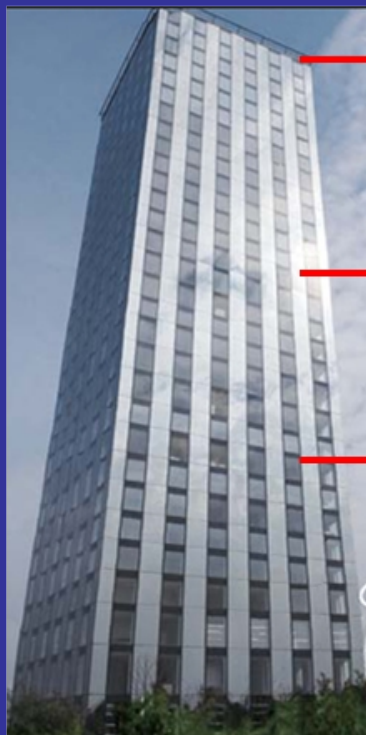


SLAB GRABBERS

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4. Re-Usability

Perimeter's posts are re-usable, both within a project, and across projects, injecting enormous materials savings compared to angle irons. In the scenario below, the same posts used for the first ten floors are used repeatedly for each additional 10-story segment.



30 Stories, 720-foot perimeter

	<u>Cost</u>
3rd Ten Floors (Baseplates)	\$11,080
2nd Ten Floors (Baseplates)	\$11,080
1 st Ten Floors (Posts/Baseplates)	\$68,440

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5. Debris Netting Base Install-Remove

By deploying a zero line cable, slipped onto the post, Perimeter enables the installation and removal of the base of debris netting to take literally 90% less time than the old, cumbersome drill-and-fill method.



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USUAL METHOD: INSTALLATION

Givens: Angle irons installed in concrete, 8' apart. Debris netting secured from above. Base attachment points 2' on center. Attachments to angle irons do not require holes, just a plastic tie.

Step # Description Per Attachment Point

- 1** Two workers required. One to hold the debris netting, the other to follow the steps below.
- 2** Worker must find an electric drill, find appropriate concrete drill bit, insert it into drill.
- 3** Worker must find a dust mask, protective glasses, gloves and put them on.
- 4** Worker drills 1.5" hole into concrete at edge of floor, 5" from the angle iron.

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USUAL METHOD: INSTALLATION (cont'd)

Step # Description Per Attachment Point

- 5 Worker blows dust out of hole with blow-out bulb.
- 6 Worker has to find a hammer drill and an approved masonry fastener.
- 7 Worker pulls netting inwards (typically 12") from the edge and lays it flat.
- 8 Worker places 3" round polypropylene base plate (or "button") so that the netting is between the base plate and the hole.
- 9 Worker drills the GRK fastener through the button and into the hole, securing the netting.

Whole process requires 2 minutes per attachment point. With two workers 4 man-minutes, or 0.067 man-hours.

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PERIMETER METHOD: INSTALLATION

Givens: Perimeter posts installed in concrete, 10' apart. Debris netting secured from above. Attachment points 2' on center. Attachments to posts require a plastic tie, as with attachments to cable.

<u>Step #</u>	<u>Description Per Attachment Point</u>
1	Only one worker required. No tools required.
2	Worker slides zero cable guide onto post.
3	Worker slips zero cable line between two posts.
4	Worker attaches a plastic tie to attach the debris netting to the cable.

Whole process requires 25 seconds per attachment point. With one worker, 25 man-seconds. or 0.007 man-hours.

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USUAL METHOD: REMOVAL

Givens: Requires a two-man crew.

<u>Step #</u>	<u>Description Per Attachment Point</u>
1	Worker must find electric drill and a corking tube.
2	Using the electric drill, worker removes GRK fastener.
3	Worker disposes GRK fastener and button.
4	Worker uses corking tube to fill the hole with grout.

Whole process requires 14 seconds per attachment point. With two-man crew, that's 28 seconds, or 0.008 man-hours.

10 EFFICIENCY DRIVERS

PERIMETER METHOD: REMOVAL

<u>Step #</u>	<u>Description Per Attachment Point</u>
1	One worker required. Worker cuts the plastic tie with a knife.

Whole process takes 2 seconds or 0.0006 man-hours.

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TIME SUMMARY PER ATTACHMENT POINT

Usual Method

Installation: 0.067 man-hours
Removal: 0.008 man-hours
TOTAL 0.075 man-hours

Perimeter Method

Installation: 0.007 man-hours
Removal: 0.0006 man-hours
TOTAL 0.0076 man-hours

Perimeter method is *10 times* faster.

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TIME COMPARISON

Assumption: 30-story building, with 720 feet of perimeter per floor. \$80/hour wage. Base debris netting attachment points every 2 feet. Total perimeter: 21,600 feet. # of attachment points: 10,800

USUAL METHOD

$10,800 \times 0.075 = 810$ man-hours

PERIMETER METHOD

$10,800 \times 0.0076 = 82$ man-hours

TIME SAVINGS: 728 man-hours or 90% savings.

10 EFFICIENCY DRIVERS

COST COMPARISON

Assumption: 30-story building, with 720 feet of perimeter per floor. \$80/hour wage. Base debris netting attachment points every 2 feet. Total perimeter: 21,600 feet. # of attachment points: 10,800

USUAL METHOD COST

$$10,800 \times 0.075 \times \$80 = \$64,800$$

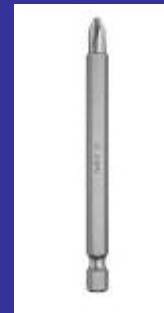
PERIMETER METHOD COST

$$10,800 \times 0.0076 \times \$80 = \$6,566$$

SAVINGS OF \$58,234 or 90% savings.

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TOOLS/IMPLEMENTS COMPARISON: USUAL METHOD



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TOOLS/IMPLEMENTS COMPARISON: PERIMETER METHOD



10 EFFICIENCY DRIVERS

SUMMARY

USUAL METHOD

Two workers

11 tools

7,322 man-hours

10 times slower

\$64,800

PERIMETER METHOD

One worker

4 tools

82 man-hours

10 times faster

\$6,566 (90% cheaper)

10 EFFICIENCY DRIVERS

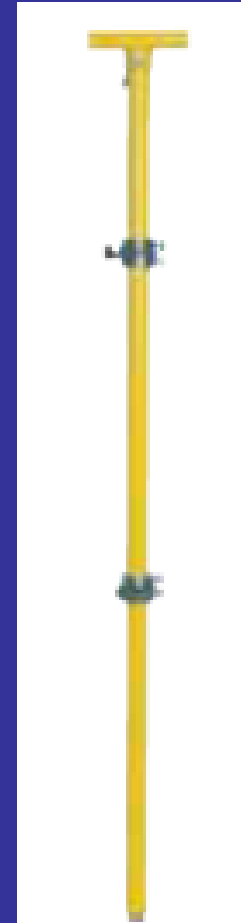
6. LOAD-IN SPEED

Because Perimeter's system allows cables to be instantly dropped, then restored, via deployment of cable termination guides, while still providing a tie-off at 21" rated at 5,000 pounds, when cranes need to deliver materials to that point on the floor, it can be up to four times faster (as a GC observed in a recent Philadelphia high-rise) than conventional methods.

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7. POST-POUR CABLE RESET

Perimeter's cable guides are adjustable. After a 7" pour say, when the cables are now at 14" and 35", you can quickly move the cable guides up to the new 21" and 42" *without unstringing the cable*. The guides and the cables all go up simultaneously.



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8. SEAMLESS SAFETY ACROSS ALL CONSTRUCTION STAGES

Often, different trades swap out the previous trades perimeter protection system for their own. This is wasteful and duplicative. Once Perimeter's system goes in, it stays in across all the stages of construction, adapting to every variable—like pours, extensions to support debris netting to ceilings of various heights, load-ins, creation of late-install columns, etc.

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9. WET EMBEDS

Perimeter offers a self-leveling wet embed that workers can gently push into wet concrete almost as fast as they can walk. The top screws out quickly to allow for floor finishing, then the posts screw in. Once the concrete has cured this embed is rated at 6,000 pounds.



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10. FABRICATOR INSTALLATION OF BASEPLATES/EMBEDS

Installing baseplates onto steel or embeds into concrete at the fabricator is far more efficient and less expensive than field installation, as they are in assembly-line mode. When this is done, workers are freed from such installation and need only screw in the posts. Simpler, faster.