



HOW PRO-RINGS ARE **CHEAPER** THAN CONCRETE GRADE RINGS:

Savings scale: \$-Minor Savings. \$\$-Moderate Savings. \$\$\$-Major Savings.

FACT: It is made from expanded polypropylene (EPP), a high-strength, energy-absorbing plastic.

- Faster Lighter Safer. \$\$\$ (see our calculator on the website)
- Corrosion resistant. Concrete rings crumble & disintegrate quickly. Only last 5-25 years. maintenance. \$\$

FACT: Meets or exceeds AASHTO HS-25 load requirements.

- Meets or exceeds for 100 years vs concrete that typically last 5-25 years. \$\$
- Cost savings: 1 PR vs 4-10 concrete rings removed and replaced over 100 years. \$\$
- Can withstand millions of impacts. See our case study on the website. \$

FACT: Meets or exceeds the requirements of ASTM C1244 (vacuum test)

- PR is sealed tight for 100 years. \$\$\$
- Cost savings: Concrete uses gaskets or mortar that can degrade which increases WWTP cost. \$\$\$

FACT: Meets or exceeds the requirements of ASTM C969 (exfiltration infiltration test)

- PR will not leak. \$
- Cost savings: Concrete eventually allows liquid in or out due to cracking, poor manufacturing & deterioration. \$\$

FACT: Is approximately 1/20th the weight of concrete grade rings, making it very easy to handle and install.

- Fewer workers comp claims \$\$\$
- Heavy handling equipment not needed \$\$
- Lower shipping cost \$
- Shorter road closure time \$

FACT: Minimizes the risk of injury due to its lightweight.

- Fewer workers comp claims \$\$\$
- Fewer worker replacement hours \$\$
- Better worker morale

FACT: It does not require any special or heavy equipment for handling, installation, or shipping.

- Lower cost of total cost equipment purchases, storage, repair and maintenance. \$

FACT: Will not fracture during transportation or be damaged if dropped.

- 10-20% of CR show up broken or cracked getting moved to job site. \$

FACT: Allows adjustments to within 1/4" of desired final elevation without the use of mortar or shims of any type.

- PR Saves time materials and eliminates issues with mortar and shims (see above) \$

FACT: It has no stacking height limitations.

- PR reduces additional construction costs vs concrete to achieve more vertical height \$

FACT: Is available in a variety of thicknesses from 3/4" to 6" as well as tapered rings.

- PR eliminates the need for shims and manual onsite adjustments and reconstruction.
- Extremely versatile for job site adjustment to miscalculations or unforeseen challenges.

FACT: It has a 100-year design life and is backed by a 25-year material warranty. \$\$\$

FACT: Reduces road closure time and traffic congestion. Reduces pollution, accidents and driver inconvenience. \$

FACT: WWTP savings due to reducing infiltration during storms and snow melts. \$\$

FACT: Utility & taxpayer cost savings over time. \$\$\$