SWAT™ FAQs

Q: What size containers will SWAT™ cover?
A: SWAT™ adjusts hydraulically to smoothly and effectively cover 15- to 40-cu. yd. roll-off containers, which represent over 95% of the cans used in the waste market. Like other brand tarp systems, depending upon the dimensions of a particular can, it may come 6 to 12 inches short of completely covering a 50-cu. yd. container.

Q: How long does it take to install a SWAT™ system?
A: For those accustomed to installing the Pioneer Rack 'n Pinion system, a typical SWAT™ system installation will be the same. Most installers say two installers can typically install a new system on a new roll-off truck in 12 hours (24 man hours). For retrofits, this obviously takes longer when a system must be removed and some brackets removed or modified.

A couple of time-saving features of the SWAT™ are the tarp spline and the hard-pipe extension cylinders. The tarp spline allows the installer to attach the tarp to the roller in seconds with no bolts, screws or drilling required. The hard-pipe extension cylinders eliminate the need to route flexible hoses through guide rings along with some of the extra hose measuring required with the use of flexible hose. These design improvements may save the installer 30 minutes or more of labor time.

Q: How much does a SWAT™ system weigh?
A: Approximately 1350 lbs.; crated weight 1550 lbs.

Q: Are the SWAT™ steel components painted before they leave the factory?
A: Steel components are powder coated, valve blocks are anodized or nickel plated and cylinder rams are nitride-coated. SWAT™ sets the standard for premium finish and rust prevention.

Q: My customers/I have always used Pioneer Rack 'n Pinion systems. Won't it cost me money and create problems for my people if I start buying SWAT™ systems instead?
A: You can make the change to the SWAT™ today and never look back. SWAT™ parts are built to work better and last longer all while fitting as direct replacements for your Pioneer parts. The system installs and operates the same as your people are used to. Nothing new to learn and no need to stock two brands of parts.

Q: Can I use the SWAT™ tarp roller to replace my Rack 'n Pinion tarp rollers?
A: Yes, you can replace any Rack 'n Pinion part with a higher quality SWAT™ part…direct replacement. We can even provide you a part number cross-reference guide. Our P/N 1803805 spring-loaded tarp roller is already well known as the premium spring roller in the industry. This premium roller not only fits as a direct replacement for the Pioneer H7002C, but the P/N 1803805 also allows 3 methods of tarp attachment: spline (recommended), bolt-in threaded groove or bolt and square nut.

Q: I've had a lot of trouble with my Pioneer cylinders leaking. How are the SWAT™ cylinders better?
A: First, all SWAT™ cylinders are made in the USA. Second, all SWAT™ cylinder rods are nitride coated. This protective coating prevents scratches and pitting of the rods which leads to premature seal wear and leaks. SWAT™ cylinders are manufactured for high quality and long life.

Q: Can I use the SWAT™ cylinders to replace Rack and Pinion cylinders?
A: Yes, you can. The base cylinders and gantry cylinder have identical specifications. The SWAT™ extension arm cylinders are hard piped, so we recommend switching both cylinders to SWAT™ parts for optimum operation.

SWAT™ FAQs

Q: I've had problems with my Pioneer valves knocking, slowing the system down too much and, in some cases, just not working at all. How are the SWAT™ valves better?
A: Again, as is the case with SWAT™ cylinders, SWAT™ valves are also made in the USA by the same supplier we've used and trusted for over 20 years. This allows us the quality control we need to ensure every SWAT™ valve is going to operate as designed — the quality and performance our customers need and expect.

Q: My Pioneer Rack 'n Pinion arms do not stay synchronized with each other. There is a lot of movement in the gear area, and the arms get twisted and out of time with each other. It can cause the pivot cover plates to separate, twist the cylinders, damage the tarp rollers, etc. What have you done in the SWAT™ design to address this issue?
A: When we inspected Pioneer systems, we saw these issues. We determined the root cause was lack of manufacturing quality and consistency in the gear teeth. The teeth of the gear at the end of the pivot arm and in the gear rack must be cut consistently at the proper angle, and the cuts must be straight. In inspecting the Pioneer gear teeth, we saw curved cuts, improper cut angles and varying cut angles. These quality issues lead to excessively loose gears, hence the twisting arms, leaking cylinders, failing tarp rollers and snapping base cylinder straps. The SWAT™ gears are designed and built to the tightest tolerance with strict quality-control measures in place to ensure the gears mesh properly. This ensures the cylinders' hydraulic forces will be evenly distributed, providing a smooth rotation, synchronized rotation of the pivot arms and much longer life of the gears, pivot, arms, cylinders, tarp rollers and stabilizer bars.

Q: A problem that has always plagued the Pioneer Rack 'n Pinion is that the gear pins fall out. Has Shur-Co® addressed this issue in the SWAT™ design?
A: The reasons that the Pioneer gear pins fall out are two fold: (1) the loose pivot gears described above cause the arms to twist, which causes the gear pins to wallow a larger hole in the pivot plates. (2) Pioneer gear pins are not positively secured to the pivot plates, so once they wallow out a large enough hole, they fall out. SWAT™ gear pins are welded to a flange that bolts directly to the "tombstone" gear cover to ensure they remain in place and that the pivot arms operate smoothly and in sync, as designed.

Additionally, SWAT™ flanged gear pins can be used as replacement gear pins on Pioneer Rack 'n Pinion systems. Just drill and tap the R&P tombstone plate and then bolt your SWAT™ flanged pins into place.

Q: Can I use the SWAT™ base arms and extension arms to replace the Rack 'n Pinion arms?
A: Yes, you can. The SWAT™ premium finish powder-coated arms are a material and dimensional match to the Pioneer arms, allowing them to serve as replacement for your SWAT™ and Rack 'n Pinion systems alike.

Q: Pioneer has increased the thickness of the "tombstone" gear cover steel plate from ¼-inch to ½-inch. Does the SWAT™ also feature this change?
A: Shur-Co® engineers determined that increasing the steel plate from ¼-inch to ½-inch would still not guarantee the gear pins would not fall out and, therefore, decided this was not the best possible solution. Shur-Co® engineers designed a flanged gear pin that bolts to the gear "tombstone" cover, ensuring the gear pins remain in place.

Q: Pioneer has extended the cover over the back end of the gear rack to eliminate the need for the base cylinder hold-down strap. Does the SWAT™ also feature this change?
A: Shur-Co® engineers evaluated this change and determined the cylinder strap is preferred. The cylinder, by design, will lift on the extension stroke. The new Pioneer design requires the extended cover to act as the retainer, which we feel introduces a new and unnecessary wear point. The Pioneer change did not address the root cause of the cylinder straps breaking. The root cause is that the Pioneer

pivot gears are too loose, causing the gear rack and the rack cylinder to "jump" when the pivot arm is rotated, especially at the beginning of the movement. Rather than try to restrict the "jumping," we felt it was best to eliminate that issue altogether by ensuring tighter manufacturing tolerances are met in the production of our pivot gears. We are also pleased that our gear racks and cylinder design ensure SWAT™ parts are direct replacements for the many Rack 'n Pinion system put into the field over the past 20 years.

Q: Pioneer has added a "self-lubricating" polymer bolt-in bearing to the gear rack. Does the SWAT™ also feature this change?

A: Shur-Co® considered this design early in our SWAT™ development process. While the concept is interesting, we concluded the positives would be outweighed by the risk that this "bolt-in" bearing comes loose requiring major disassembly and downtime to repair. Pioneer's literature states that the bearing is designed to last as long as the tarp system, but they add that the bearing can be replaced if needed. In our view, if it should last the life of the tarp system and commenting on its replacement should be unnecessary.

Q: How do you add tension to the SWAT™ roller bar spring?

A: Once the safety ratchet assembly is properly installed and engaged and the ratchet guard is installed, the roller spring is tensioned using the roller bar winding handle (included w/ kit). Following the instructions on the roller bar decal, the installer (standing on the driver side of the system) will use the winding handle to apply 7 full counter-clockwise rotations to tension the spring. A cap screw is removed from the arm and shaft prior to tensioning and reinserted upon completion. Although the safety ratchet prevents free wheeling of the spring shaft, it is clearly stated and highly recommended that the installer maintain a firm grip on the winding handle once tension is applied until the cap screw is reinstalled.

Q: How do you remove tension from the SWAT™ roller bar spring?

A: To remove all spring tension for tarp or roller replacement, bring the arms all the way forward and rest the tarp roller base rest assembly (cradle) to minimize spring tension. Next, remove the ratchet guard and then remove the cap screw from the driver side arm and roller shaft. **DO NOT ATTACH THE WINDING HANDLE.** Using the tab on the lock pawl, disengage the lock pawl from the sprocket and allow the spring pre-tension to release. Keep fingers clear of sprocket during this process. To only remove partial tension, the operator must first remove the ratchet guard. Next, follow the same initial steps for applying tension by attaching the winding handle. Then, while firmly grasping the winding handle, remove the cap screw from the arm and shaft. While still grasping the winding handle firmly, disengage the lock pawl from the sprocket and slowly and securely allow the roller shaft to rotate clockwise to release tension. Ensure sprocket teeth engage lock pawl when reaching desired tension. Maintain firm grasp of winding handle at all times. Reinsert the cap screw into the arm and shaft, then reattach ratchet guard.

Q: Pioneer literature states they have increased the inside diameter of their roller shaft bushing for easier tensioning and reduced maintenance. Does the SWAT™ tarp roller offer similar features?

A: Yes, when Shur-Co® developed the P/N 1803805 spring roller bar several years ago, we upgraded the bushings as we had already identified the Pioneer bushings as a weak point in their roller. During concurrent side-by-side life-cycle testing, the Shur-Co® roller was still operating as designed when the Pioneer roller bushing failures began to present.

Q: Pioneer literature states the Rack 'n Pinion system has a redesigned tarp anchor tube cap with an inner shaft extension to prevent the anchor tube from pulling out of the roll rest. Does the SWAT™ system offer this feature?

A: Yes, it does. The cap ends of the SWAT™ quick-release tarp tube feature a welded-in tube section that slides into the tarp tube to ensure the tarp and tarp tube remain securely fastened to the gantry.

SWAT™ FAQs

Q: Does Shur-Co® offer an optional rear cab window screen that mounts to the gantry?
A: We do not offer a cab window screen at this time, but if our customers would like us to add this option, we can do so. This was not an item that dealers mentioned when asked what they liked and didn't like about the Pioneer system.

Q: What material is the SWAT™ tarp made of?
A: SWAT™ tarps are constructed using Mighty Mesh®, the strongest tarp mesh ever used in the waste and construction markets. This densely woven, extremely durable mesh outlasts standard PVC mesh 3:1 on average and eliminates the need for vinyl reinforcements. Less weigt = less cost = faster installation = longer life!

Q: Can I get a tarp with side flaps to extend my coverage over peaked loads?
A: Yes, you can. Our P/N 1801640 Mighty Mesh® replacement tarp measures 9'8" x 28' with side flaps and bungee cord, matching the dimensional specs of the Pioneer HR4616 tarp.

Q: Is the SWAT™ available with a fixed (non-telescoping) gantry?
A: No, it is only available with a telescoping gantry. The industry far and away prefers a telescoping gantry to reduce tarp wear and to help the driver gain visibility when needed. Shur-Co's approach is to focus on the most popular design in order to find additional cost savings that can be passed along to our customers.

Q: What preventative maintenance is required?
A: Like any high-frequency use equipment, the SWAT™ system should be inspected regularly and any issues should be addressed while repairs or adjustments are minor. Recommended maintenance is as follows:
- Check fittings and connections weekly and correct as needed.
- Grease arm pivot pins and lubricate gantry legs weekly.
- Lubricate telescopic extension arms weekly.
- Spray lube pivot gears weekly.
- Re-adjust relief valves as needed.
- Replace/repair broken or worn parts or tarp immediately as required.

Q: What is the SWAT™ warranty?
A: Steel components and tarp roller spring: 3 years; hydraulic valves: 1 year; tarp: 90 days. Warranted against defects in material and workmanship. Details included in Owner's Manual.