

# The Lean Water Spider

by Tom Fabrizio

The Water Spider position is often confused with a simple material handler or an entry level "go fetch" person. Far from it, the Water Spider needs to be thoroughly familiar with the materials, tools and methods of the process they are supporting. My mentors from Toyota used to say the Water Spider



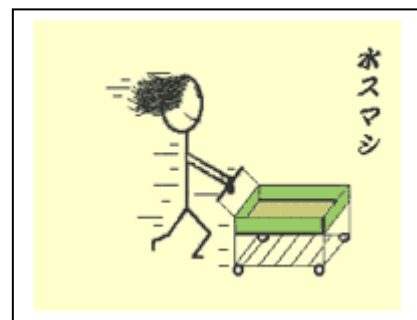
role was "a step on the way" to becoming a supervisor. The Water Spider is a critical role in making continuous flow and a smoothly functioning Lean system a reality.

But what's in a name? Why Water Spider? People often think this word comes from the insect that skims the surface of the water (water strider) but technically this is not correct. The water spider is the beetle that moves about **inside** the water, not on the surface. And that's the critical point – **moves "inside."**

**A spider works within the process.** A good way to remember this is that while the water beetle dives into the water (dives into the process, gets close to the operation, even goes into the operation to do occasional relief work for operators) the water strider skims across the surface and does not get close to the process. The "Water Spider" in Lean must be intimate with the process or operation they support, not just a pick-up-and-drop-off material handler.

**A spider keeps the workplace clean.** The Japanese always have a reason for their terms. The word for water spider in Japanese literally means "make water cleaner" or "purify water". I don't know if this little beetle actually cleans the water or not. You would have to ask an entomologist. The water beetle does have little broom-like fibers on its rear legs, so perhaps that's how it "cleans the water". Or perhaps it was noticed that water spiders only lived in the clear water so they were given credit for making it clean.

**A spider facilitates flow.** If we suppose that the water spider makes the water clean or keeps it clean, the human water spider in Lean also keeps the flow in the factory or in the process clean and smooth by taking on the occasional tasks (tasks that do not happen every cycle, such as material and tool replenishment or making shipping containers). A clean process flow and defined work sequence (clear flowing water) is also a requirement for designing the workload of the Water Spider position.



**A spider is always moving.** The spider ensures that JIT is happening, just the right amount of materials and supplies at the right time in the right place. The spider fills in where needed to keep flow going. The spider communicates, facilitates, and helps. The spider has the overview of flow. Continuous flow is the spider's focus – and removal of obstacles is his mission.

**A spider's job should be systematic.** He should have a route, a time line, and a system to do everything. He is a generalist who gets along with everyone.