The MR1 and MR2 range of retractors offer a unique and highly valuable method of cleaning vessels, pipe work and ducting where a cleaning head cannot remain in situ when the process is running. The units sit externally to the process system and extend under the power of the cleaning fluid into the appropriate section of the vessel to be cleaned when required. After performing the cleaning operation, they either auto retract or can be manually retracted with compressed air, CO2, Nitrogen or other gas. The wide variety of cleaning head options provides a unit that can be designed into most systems and provide full cleaning solutions.

**Applications**

The MR1 and MR2 units are ideal for installing into ducting and pipe work where the flow through the production system needs to remain free from obstructions. They are equally suited to be used in larger vessels where there are agitators and mixing systems which would have their mechanical action impeded by cleaning heads fitted in situ. The units are suitable for use in process systems running under a vacuum. The units are compact in design and effective in performance. They meet all the essential FDA material requirements and are also available in ATEX exempt form. This makes the units highly suitable for the pharmaceutical, biotech, food, beverage and other hygiene conscious industries.

**Operation**

Wash fluid enters a drive chamber causing the unit to extend into its cleaning position. The cleaning head (depending on the model chosen) then rotates and produces a fast moving spray of powerful high energy droplets providing instant coverage of the target area. The specially designed cleaning pattern ensures the high energy droplets use the minimum amount of wash fluid to deliver optimum performance. Units are usually used in pairs or multiples to ensure no blind spot areas are created.
Maintenance & Inspection
The low wear design requires minimal maintenance. Any spare parts, technical assistance or repair facilities required can be obtained through the global Breconcherry distributor network. As with all mechanical devices, it is recommended that the unit be regularly inspected for correct operation.

Minimum Manhole/Flange Size
The minimum flange connection size required for the unit will depend on the type of model chosen. Typical tri clamp flange connections of 2.5” and 3”, but custom sizes can also be supplied.

Technical Data
Materials of Construction: Stainless Steel 316/316L, PTFE, C-PTFE, PEEK, Hastelloy
Max. Operating Temperature: 100° Centigrade
Max. Ambient Temperature: 140° Centigrade
Standard Connections: Tri Clamp
Nozzle Characteristics: Custom Spray Pattern depending on cleaning head chosen