

# CRANE

PUMPS & SYSTEMS

# BARNES®

# BAF

# TECH NOTES

# # 10

## BAF Guide Rail Systems Reduce Maintenance Costs

Break Away Fittings (BAF) consist of a base elbow attached to the floor, a slide rail adapter that attaches to the pump, brackets to support the guide rails and customer- or contractor-provided pipes that form the actual guide rails. With a BAF system in place, there is no need to disconnect piping in a wet well; for maintenance the pump and guide rail are lifted with a chain or wire rope (usually stainless steel) used to slide the pump up the guide rails to the surface.

The Barnes small BAF systems are designed specifically to connect to 1.25, 2 and 3" grinder, effluent or sewage ejector pumps with vertical discharge connections in permanent commercial installations such as schools, hospitals, apartment complexes and the like. There are two base elbows with 2" and 3" passages and a variety of flanges and riser pipes to accommodate everything from 1-1/4" and 2" grinder pumps to 2" and 3" effluent and sewage ejector pumps.

In many cases, grinder pumps are utilized in low-flow lift station applications where the design flow rate is too low to move solids with conventional sewage pumps.

In some of these, NFPA and NEC requirements require explosion-proof ratings. To accommodate ex-proof requirements, Barnes offers bronze slide rail adapters. Bronze is an excellent conductor, preventing a build-up in charge as the slide rail moves on the rails that could discharge as a dangerous spark when using cast iron slide rails.

To simplify construction, 2" elbows can also be furnished with check valves. And for slide rails, lengths greater than 13 feet, we recommend and provide an optional intermediate rail support to provide pipe rigidity.

The model designation system is easy: The first two digits represent the pump discharge size, and the second two the diameter of the system riser pipe. A unit with a Check Valve is identified by a CV suffix, and a non-sparking Bronze slide rail system is identified by an NS suffix. For example, a Model 2020 has a 2" pump connection and a 2" riser pipe connection. A BAF for an X-Pruf grinder with 2" discharge, connecting to a 3" riser and including a bronze slide rail fitting would be a Model BAF-2030NS. Please refer to the Catalog page for more information.

