

Dispensing Fuel Right From 55-Gallon Drums

When filling bottle or jugs with Fuel Right additives out of drums, drum pumps having no elastomers (rubber-like compounds) or yellow metals (copper, brass, bronze) are preferred.

Most common elastomers are attacked or dissolved by Fuel Right, which can lead to black particles in the product and pump operating issues. If elastomer seals or gaskets are a must, nitrile (buna-n) is the preferred elastomer because it swells but does not break down. Neoprene, buna-s, butyl rubber and common grades of Viton are all severely attacked and should be avoided.

Fuel Right strips the copper oxides off the surface of yellow metals, which leads to copper contamination of the fuel oil and possibly subsequent fuel instability. (Note: fuel oil does the same thing, but not as quickly – so copper fuel lines are a bad idea but common practice.)

Several drum pumps are available that do not put elastomers or yellow metals in contact with the pumped fluid. Some examples include Dayton No. 4HA36 Ryton Rotary Drum Pump and No. 3BY41 Polypropylene Rotary Pump – both available from Grainer. Also moderately successful are Dayton Nos. 4HA38, 4HA35 and 4HA34 pumps – all of which use buna-n seals.

Most drum pumps attach to the drum bung by the suction tube passing through a screwed adapter with open clearance. As a result, rain and wash water can easily enter the drum and contaminate the product. Drums fitted with drum pumps, therefore, should be used only indoors or under a protective cover.

One alternative means of dispensing product from drums is to place the drum on a dolly and outfit the $\frac{3}{4}$ " bung with a pipe nipple, ball valve (Stainless or steel – not brass), nipple, elbow and downward nipple with pipe reducer as needed to fit the jugs or bottles to be filled. (The 2" bung should be on the upper side and outfitted with a pipe vent.) This approach has been used at Westminster and other sites with good success.

As a general reference, materials that are compatible with Fuel Right products include steel, stainless steel, aluminum, Teflon (all types), PPS (e.g. Ryton), polypropylene, polyethylene, PET, nylon, and PVDF.

If you have any questions about this subject, call Bob Tatnall at (302) 425-4400.