Pigs Unlimited International, Inc.

Foam Pig Selection Guide

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Light Density Foam Pigs

Light density foam pigs are constructed of a 1-2 lbs/cubic foot density foam. The coating used on our pigs is a 90 Shore A durometer urethane coating.

LB - Light Density Bare Foam Swab

Features: Light density Foam cylinder with urethane coating on rear only.

Applications: Daily pigging where pressures are low, but cleaning is needed to reduce rapidity of buildups. Used as a gauging pig when progressive pigging is performed in order to ascertain reduced line diameter. Used as a sealer pig when progressive cleaning and smaller-than-line-size pigs are being run, by preventing too much bypass of the cleaning pig.

LC - Light Density Criss-Cross Swab

Features: Bullet shaped light density foam pig with urethane coating in double-spiral configuration.

Applications: Light wiping and light scraping used when line conditions do not allow for heavier density foam pigs due to low pressures. Good for multi-dimensional pipelines. The light density foam allows for hand launching with pig over-sizing.

LS - Light Density Criss-Cross Silicon Carbide

Features: Bullet shaped light density foam pig with urethane coating in double-spiral configuration and silicon carbide sprinkled into coating.

Applications: Light scraping in short distances of 2,000 ft. or less.

LW - Light Density Criss-Cross Wirebrush

Features: Bullet shaped light density foam pig with urethane coating in double-spiral configuration and wirebrush straps. (Also available with plastic brush straps)

Applications: Light scraping. Used for scraping, plowing, and medium hard scale removal (up to 5 1/2 on Moh's scale of hardness) for most tuberculated scales.

Medium Density Foam Pigs

Medium density foam pigs are constructed of a 5-7 lbs/cubic foot density foam. The coating used on our pigs is a 90 Shore A durometer urethane coating.

MB - Medium Density Bare Foam

Features: Bullet shaped medium density foam cylinder with coating on rear only.

Applications: Regular drying. For drying pipelines of up to 10 miles with smooth interiors or for the removal of soft buildups in all pipes. Can also be used for mild cleaning of lines with low pressures, or for gauging inside diameter of scaled line.

MC - Medium Density Criss-Cross

Features: Bullet shaped medium density foam pig with urethane coating in double-spiral configuration.

Applications: Regular wiping. Good in oilfield flow-lines for paraffin removal or for wiping most pipelines with soft buildup. Best in minimum pressure lines or lines with large quantity of short radius bends, tees, valves, etc.

MS - Medium Density Criss-Cross Silicon Carbide

Features: Bullet shaped medium density foam pig with urethane coating in double-spiral configuration and silicon carbide sprinkled into coating.

Applications: Regular scraping where mild abrasion is needed in short distances of 2,000 ft. or less. Not recommended where normal or tough abrasion is needed.

MW - Medium Density Criss-Cross Wirebrush

Features: Bullet shaped medium density foam pig with urethane coating in double-spiral configuration and wirebrush straps. (Also available with plastic brush straps)

Applications: Medium scraping. Used for scraping, plowing, and medium hard scale removal (up to 5 1/2 on Moh's scale of hardness) for most tuberculated scales.

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Heavy Density Foam Pigs

Heavy density foam pigs are constructed of a 8-10 lbs/cubic foot density foam. The coating used on our pigs is a 90 Shore A durometer urethane coating.

HB - Heavy Density Bare Foam

Features: Bullet shaped heavy density foam cylinder with coating on rear only.

Applications: Heavy drying. Best for use in long lines where heavy drying or wiping is needed. Good for any drying needs or product removal such as light oils, hydrocarbon liquid, etc.

HC - Heavy Density Criss-Cross

Features: Bullet shaped heavy density foam pig with urethane coating in double-spiral configuration.

Applications: Regular wiping. Good in oilfield flow-lines for paraffin removal or for wiping most pipelines with soft buildup. Best in minimum pressure lines or lines with large quantity of short radius bends, tees, valves, etc.

HS - Heavy Density Criss-Cross Silicon Carbide

Features: Bullet shaped heavy density foam pig with urethane coating in double-spiral configuration and silicon carbide straps.

Applications: Heavy scraping. For hard scraping scales (harder than 6 on Moh's scales of hardness). Good when used in line conditions that would shorten the life of the criss-cross, or when scraping is needed, but wirebrush is too much.

HW - Heavy Density Criss-Cross Wirebrush

Features: Bullet shaped foam pig with urethane coating in double-spiral configuration and wirebrush straps. (Also available with plastic brush straps)

Applications: Heavy scraping. For heaviest scraping, plowing, and medium hard scale removal (up to 5 1/2 on Moh's scale of hardness).

Foam Disc Pigs

FDP5
(Medium Density)

FDP8
(Heavy Density)

Features: The foam disc pig is constructed from a polyurethane foam with a high grade abrasion and chemical resistant polyurethane elastomer coating. The pig is available in both a medium density and heavy density foam option.

Applications: The multiple sealing discs make it an excellent pig for regular wiping, batching, dewatering, and product removal.

Options: The various options available include bare (no coating), pulling rope or cable, transmitter cavity, magnets, and customized lengths.

Brush Foam Pigs

TWP - Total Plastic Bristle Pig

Features: Bullet shaped medium density foam with urethane coating and plastic bristle straps covering entire pig. (75% more straps than standard plastic bristle pig)

Applications: Maximum scraping. Used when very abrasive cleaning is needed, but wirebrush may damage pipe (PVC, fiberglass, internally coated) or not allow pig passage.

TW - Total Wirebrush Pig

Features: Bullet shaped heavy density foam with urethane coating and wirebrush straps covering entire pig. (75% more straps than standard wirebrush pig)

Applications: Maximum scraping. For scraping to an absolute bare surface in steel or cast iron pipe prior to either drying to a negative dew point or the application of internal coatings. Should be used only in single-dimensional lines.

GHS - Hard Scale Pig

Features: Bullet shaped heavy density foam with urethane coating and heavy gauge wirebrush straps.

Applications: This pig is used for the heaviest types of cleaning applications, such as fly ash, encrusted salt crystals, and solidified sulfur.

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Design Variations

Double Dish (Bi-Directional)

Same body construction and coating configuration as bullet-shaped pigs, but with both ends being dished. Used when two directions are to be traversed by the pig without leaving the pipe.

Double Nose

Same body construction and coating configuration as bullet-shaped pigs, but with both ends being bullet-shaped. Will move through line at approximately half the speed of a standard or double dish pig due to no flat surface for pressure to push.

Transmitter Cavity

The transmitter cavity is prepared in the body of the pig to house a tracking transmitter for the purpose of tracking or locating a pig. Caution should be used on sizes 8" and smaller.

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Design Variations

Turning Pattern

The turning pattern of coating applied to the pig in a different fashion than the standard criss-cross helps the pig to rotate as it is traversing the line, thereby allowing for a more even wear and longer distances.

Ropes and Cables

Pigs can be supplied with handling ropes or cables in nose, rear, or both. Cables for pulling purposes can also be requested.

Lengths and Diameters

The standard length of a foam pig is approximately one-and-a-half times the nominal pipe diameter for the length from base to shoulder of the pig, plus one-half the diameter for the nose. The total length of a double-dish pig is one-and-a-half times the nominal pipe diameter, and a double-nose pig has a total length of two-and-a-half times the diameter. Custom lengths are available.

To properly seal and perform their functions, the pig's diameter is larger than the internal diameter of the pipe (anywhere form 1-5% over sizing is standard). Custom diameters are available.