

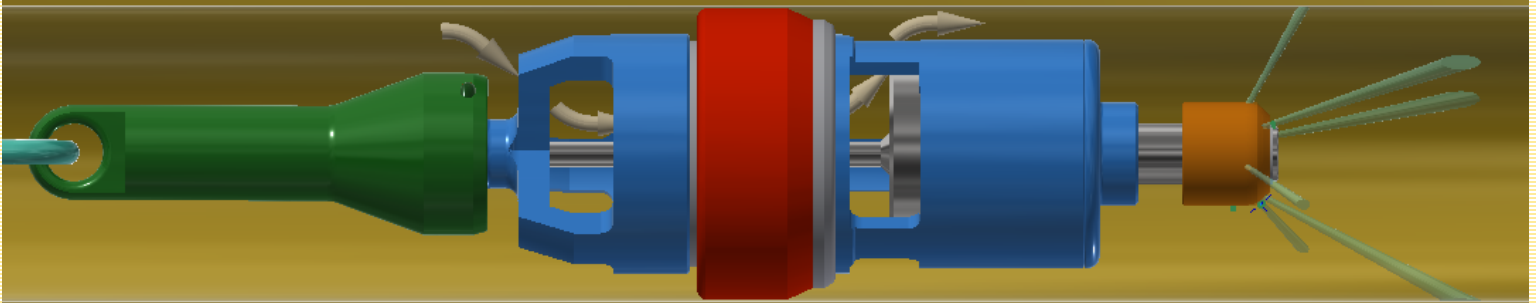


**SUBSEA
SYSTEMS**

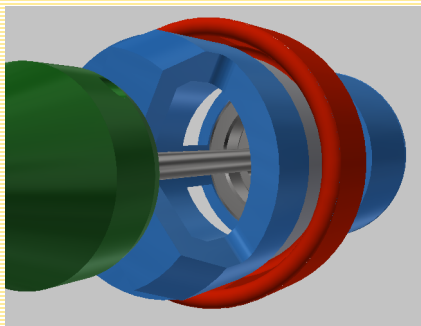
DIV. BAUGH CONSULTING ENGINEERS, INC.

WIRE ROPE PIG WRP-3

PIPELINE CLEANING WHILE PRODUCTION IS FLOWING!
COMPLETE CLEANING OPERATIONS CAN BE CONDUCTED WITHOUT
STOPPING THE PIPELINE FLOW!



LAUNCHES INTO FULL PRODUCTION FLOW
USES A MULTI-JET SPINNER TO CLEAN THE PIPELINE
CLEANS BY JETTING USING PRODUCTION FLOW
LARGE INTERNAL BYPASS AND WITH PRESSURE CONTROLLED VALVE
PROVIDES A STANDARD PRESSURE DROP (E.G. 100-200 P.S.I.)
PULLED BACK TO ENTRY POINT WITH SAME PRESSURE DROP
RECLEANS PIPELINE ON RETURN TRIP
CAN DEPLOY PIPELINE INSPECTION TOOLS



INTERNAL FLOW PASSAGES ARE SO
LARGE YOU CAN SEE THROUGH THE PIG IN
THE FULL OPEN MODE

Beta Subsea Systems offers a combination of patent licensing, engineering, manufacturing capabilities, and products to assist you grow your business.

Primary Contacts: Benton F. Baugh, Ph.D., P.E., 713-419-8683, bbaugh@betasubsea.com
James R. Crawford, 337-344-0289, jimbob@crawfordtechnicalserv.com

PATENT PENDING

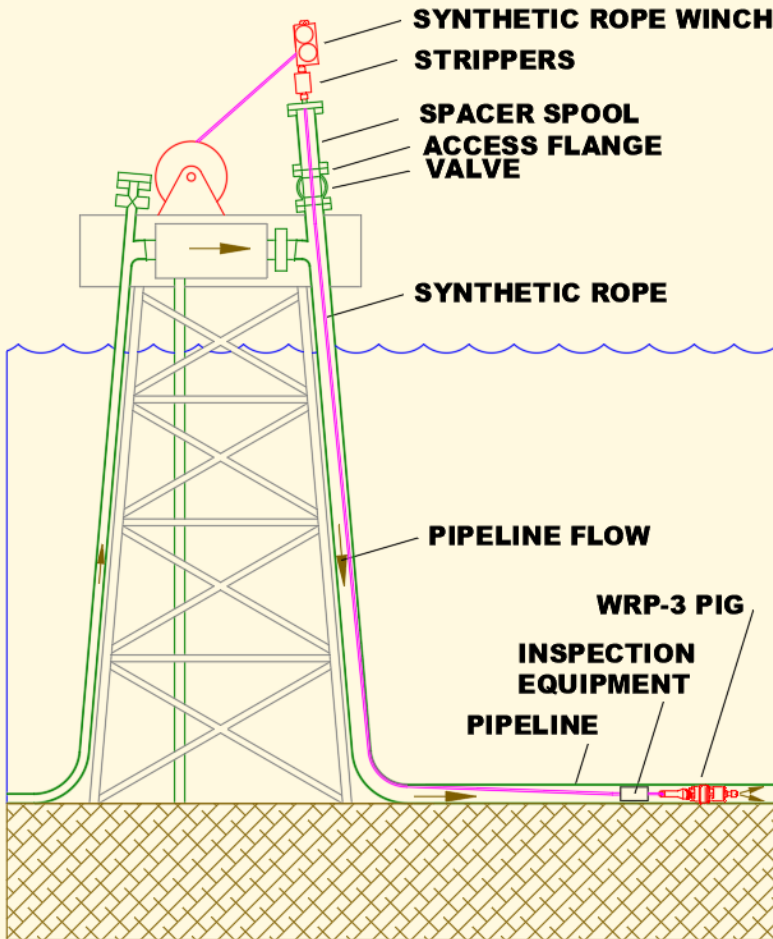


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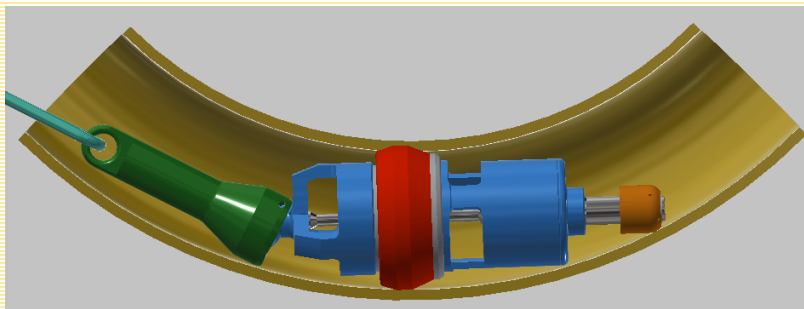


SHOWS A SYNTHETIC ROPE WINCH AND SPACER SPOOL LANDED ON A PIPELINE ACCESS FLANGE WITH A WRP-2 PIG AND CONDUCTING A PIPELINE CLEANING USING PRODUCTION FLOW.

NOTE THE PIG IS PULLING INSPECTION EQUIPMENT AS IT IS CLEANING.

AFTER THE PIG REACHES THE END OF THE CLEANING, IT IS SIMPLY PULLED BACK TO THE STARTING POINT, AND IT RECLEANS THE PIPE ON THE RETURN TRIP.

WHEN DESIRED, PUMPING CAN SUBSTITUTE FOR PRODUCTION FLOW.



A 6" AND LARGER WRP-3 PIG WILL PASS A 3D PIPE BEND WHILE IN THE FULL CLEANING MODE

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