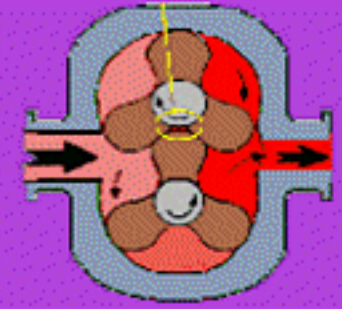


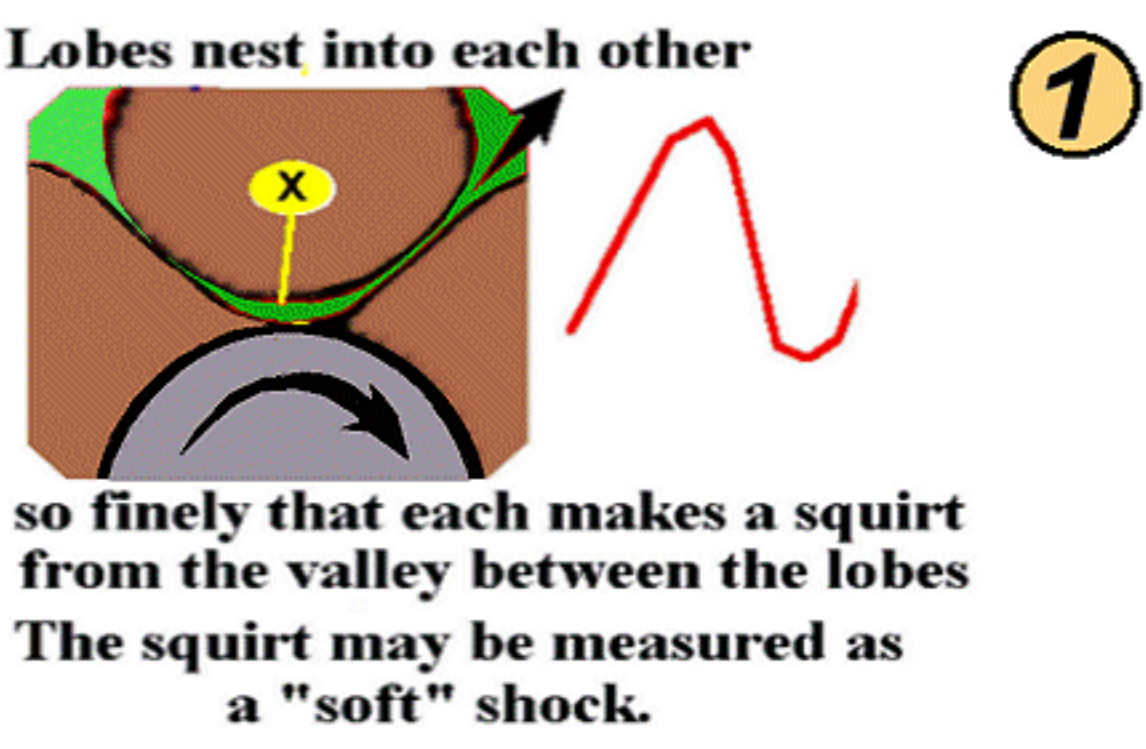
BELOW: How to ensure lowest in place cost and most performance by standard installation methods.

P9 **S** **Low pressure medium frequency Lobe pump pipes Can need pulsation dampening .**
Running on viscous liquids, a pulsation occurs.



PUMPS make FLOW, SYSTEMS cause PRESSURE, pressure pulsation is a system response, AND a system responsibility NOT a pump manufacturers liability.

The source of the disturbances:
 Magnified into pulsation by poor, or no pipe design frequency analysis is from "X"



GOTO:- PIPEHUGGER LP & HP
 which provides both flow fluctuation smoothing , and the interception of pressure pulsation for both liquids and slurries. See PHr LP & PHr HP price lists for off the shelf inventory dampers, dimensions, weights and cut sheet drawing

Liquid in a bladder of EP, Buna N. Fluoro. or Hypalon Elastomer.

GOTO:- FLEXORBER LP
 Which provides smooth face virgin DuPont Teflon with flow through in place flushability. For inventory See Price list & for dims. weight & drwg.

MOUNTING NUTS 3 PLACES
 PRE-FILL VALVE OPEN & CLOSE WITH A 3/4" WRENCH ONLY
 ALTERNATES VTFE MTFE
 Elastomer Backed Encapsulated Stiffener With Virgin PTFE Smooth Face for Clean in Place
 2 LAYERS of MODIFIED PTFE DIAPHRAGMS For Toxins, Pyroforic and Permeate service
 Optional Secondary Containment Sealing
 For systems up to 4" tube, that need DuPont Teflon or LDi "FLEXFLON"

GOTO:- WAVEGUARD
 Where pressure pulsation is the issue , not flow fluctuation, WAVEGUARDS with no moving parts are the choice.

WAG-HO with orifices for clean systems.

WAG-MT much larger, for dirty flow.

WAG-CER Smoothest
 With ceramic balls for wave breaking.

System amplification of "lobe ripple"
 before [wavy line] after [smooth line]

GOTO:- PUMPGUARD For high viscosity systems plus, slurries, foods, & beverages.
 Good for suction systems and discharge to 100 psi, where cost is not the major consideration.
 Carry a complete spare when service down time is important.

PermaCushion foam fill
FelexTube elastomer

no N2 pre-fill required.
 Flex-Tubes from :- EPDM, Nitrile Hypalon, Fluoro Elastomers etc.

For prices, dimensions, weights, and section drawing of short lead time items, please see "PUG" price list.

When you see a damper or a pump of particular interest, please request literature dedicated to that subject.