

Introduction

\$ PRELOH FDYLWDWLRQ V\ VWHP ZDV FRQVWUXFWHG DW WKH
WKH 8QLYHUVLW\ RI WKH :HVWHUQ &DSHV 8:& SLORW SO
UHVHUYRLU WHPSHUDWXUH JDXJHVW ~~BOGONZYBUDDFDLRQ~~ Y
WKH 8:& GHVLJQ DQ DFRXVWLF OLVWHQLQJ GHYLFH ZDV L
FDYLWDWLRQ YHULILFDWLRQ 7KH 8:& V\ VWHP KDV D N:
IHDWXUHV D K\GUDXOLF ~~FDKHDGXSJUDGEB&WWRDY~~ +S %RWK
VWHHO SLSLQJ WR PD[LPLVH FRUURVLRQ UHVLVWDQFH 7KH
FDSDFLW\ RI DSSUR[LPDWHO\ / ZKHUHDV WKH SLORW SO
H[SLFHQW REMHFWLYHV ,Q DGGLWLRQ WKH UHVHUYRLU RI
FRQWURO WKH WHPSHUDWXUH RI WKH ZDWHU

)LJXUH 5HVHUYRLU FDYLWDWLRQ V\ VWHP IRU OHDNV DQG

Cavitation fundamentals

)LJXUH \$Q DWWHPSW WR GHPRQVWUDWH V\SKRQLQJ FDYL
DQG WØRWUH EXFNHWV

7KH IXQGDPHQWDOV IRU FDYLWDWLRQ RFFXU XQGHU FHU
OLVVRXUL 8QLYHUVLW\ LQ WKH +LJK %D\ /DERUDWRU\ ZKL
6\SKRQLQJ FDYLWDWLRQ RFFXUV XQGHU FHUWDUHQHWRXQGD
PP GLDPHWHU SLSH DQG EXFNHWV ZDV XVHG WR GHPRQ
XQGHUVWDQGLQJ RI WKLW FRQFHSW WKH WDVN DW KDQG Z
DQRWKHU ZLWKRXW WKH DGGLWLRQRIQDKPHLEKDWQZFDWHSXIP
DQG EXEEOH IRUPLQJ RFFXUV ZKHQ QDWXUDO FDYLWDWLRQ
WKH EXEEOH IRUPLQJ DW D FHUWDLQ KHLJKW UHVWULFWLF
IROORZV

3 !YB ð 3!JK !YB ð !JK

:KHUH

3 3 UHSUHVHQWV GLIIHUHQW SUHVXUHV DW SRLQWV D
Y Y UHSUHVHQWV WKH YHORFLWLHV DW SRLQWV DQG
K K UHSUHVHQWV WKH KHLJKWV DW SRLQWV DQG

