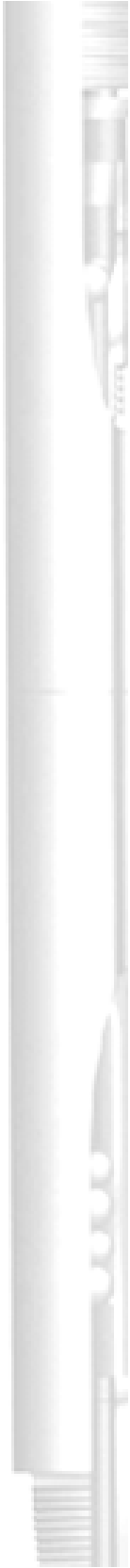


**9 1/2" HF PBL BALL LOCK BYPASS SYSTEM
TECHNICAL SHEET**



SERIAL #	*
A-TOOL O.D.	9.50"
B-TOOL I.D. (DRIFT)	2.53"
FLOW AREA THROUGH TOOL	5.7 sq/in
C-BOX CONNECTION	7 5/8 Reg
D-PIN CONNECTION	7 5/8 Reg
E-ACTIVATION BALL/# TO ACTIVATE:	1
DIAMETER	2.72"
MATERIAL	Ertalyte
SHEARING PRESSURE	As Desired
F-DEACTIVATION BALL/# TO DEACT.:	2
DIAMETER	1 3/4"
MATERIAL	Steel
G-LOCKING BALL/# TO LOCK OPEN:	1
DIAMETER	1 3/8"
MATERIAL	Ertalyte
SHEARING PRESSURE	75% of act shear
H-SIZE OF PORT	1.35"
NUMBER OF PORTS	2
TFA WHEN TOOL IS OPEN	2.863 sq/in
NUMBER OF CYCLES	4
OVERALL LENGTH	8 - 9 ft
WEIGHT	1,600 lbs
TENSILE STRENGTH	6,000,00 lbs
TORSIONAL STRENGTH	565,000 ft/lbs
MAKE UP TORQUE	81,290 ft/lbs

NOTES:

NO DRIFT WHEN BALLS ARE IN TOOL.

* Tool is rated to operate in temp. up to 420 degrees Fahrenheit.

* 2.530" Drift to allow 2.50" NOV ball pass through.

