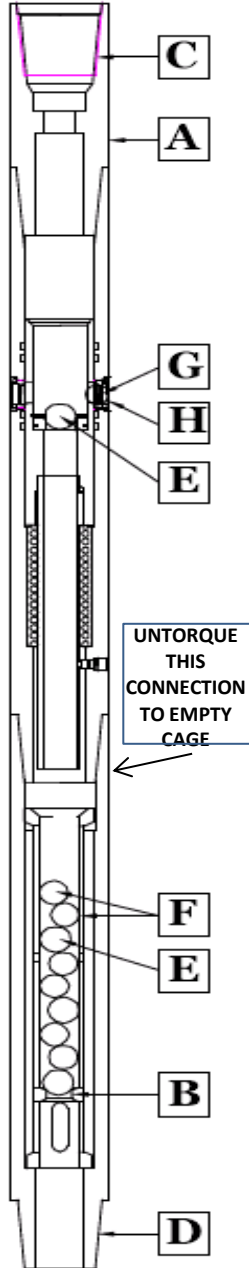




**3 1/8" O.D.**  
**3-PORT**  
**1" ACT BALL**

**3 1/8" PBL BALL LOCK BYPASS SYSTEM**  
**3-PORT TECHNICAL SHEET**



SERIAL #  
 A - TOOL O.D.  
 B - TOOL I.D.  
 FLOW AREA THROUGH TOOL  
 C - BOX CONNECTION  
 D - PIN CONNECTION  
 G - ACTIVATION BALL/# TO ACTIVATE  
 H - DIAMETER  
 E - MATERIAL  
 SHEARING PRESSURE  
 F - DEACTIVATION BALL/# TO DEACT.  
 DIAMETER  
 MATERIAL  
 SHEARING PRESSURE  
 G - LOCKING BALL/# TO LOCK OPEN  
 DIAMETER  
 MATERIAL  
 SHEARING PRESSURE  
 H - SIZE OF PORT  
 NUMBER OF PORTS  
 TFA WHEN TOOL IS OPEN  
 NUMBER OF CYCLES  
 OVERALL LENGTH  
 WEIGHT  
 TENSILE STRENGTH  
 TORSIONAL STRENGTH  
 MAKE UP TORQUE

SERIAL #	
A - TOOL O.D.	3.125"
B - TOOL I.D.	9/16"
FLOW AREA THROUGH TOOL	0.785 SQ.IN.
C - BOX CONNECTION	2 3/8 REG
D - PIN CONNECTION	2 3/8 REG
G - ACTIVATION BALL/# TO ACTIVATE	1
H - DIAMETER	1.00"
E - MATERIAL	Torlon
SHEARING PRESSURE	
F - DEACTIVATION BALL/# TO DEACT.	3
DIAMETER	13/16"
MATERIAL	Steel
SHEARING PRESSURE	NA
G - LOCKING BALL/# TO LOCK OPEN	NA
DIAMETER	NA
MATERIAL	NA
SHEARING PRESSURE	
H - SIZE OF PORT	0.75"
NUMBER OF PORTS	3
TFA WHEN TOOL IS OPEN	1.32 SQ.IN
NUMBER OF CYCLES	7
OVERALL LENGTH	5 1/2 - 6 1/2 FT
WEIGHT	125 LBS
TENSILE STRENGTH	490,000 LBS
TORSIONAL STRENGTH	16,500 FT/LBS
MAKE UP TORQUE	3,000 FT/LBS

NOTES  
 \* **NO THRU DRIFT WHEN BALLS ARE IN TOOL**  
 \* Tool is rated to operate in temp up to 420 degrees F  
 \* Internal Connection Torque = 5,600 FT/LBS  
**Maximum Flow Rate Before Activation is 5 BPM**  
**Maximum Flow Rate After Activation is 6 BPM**

