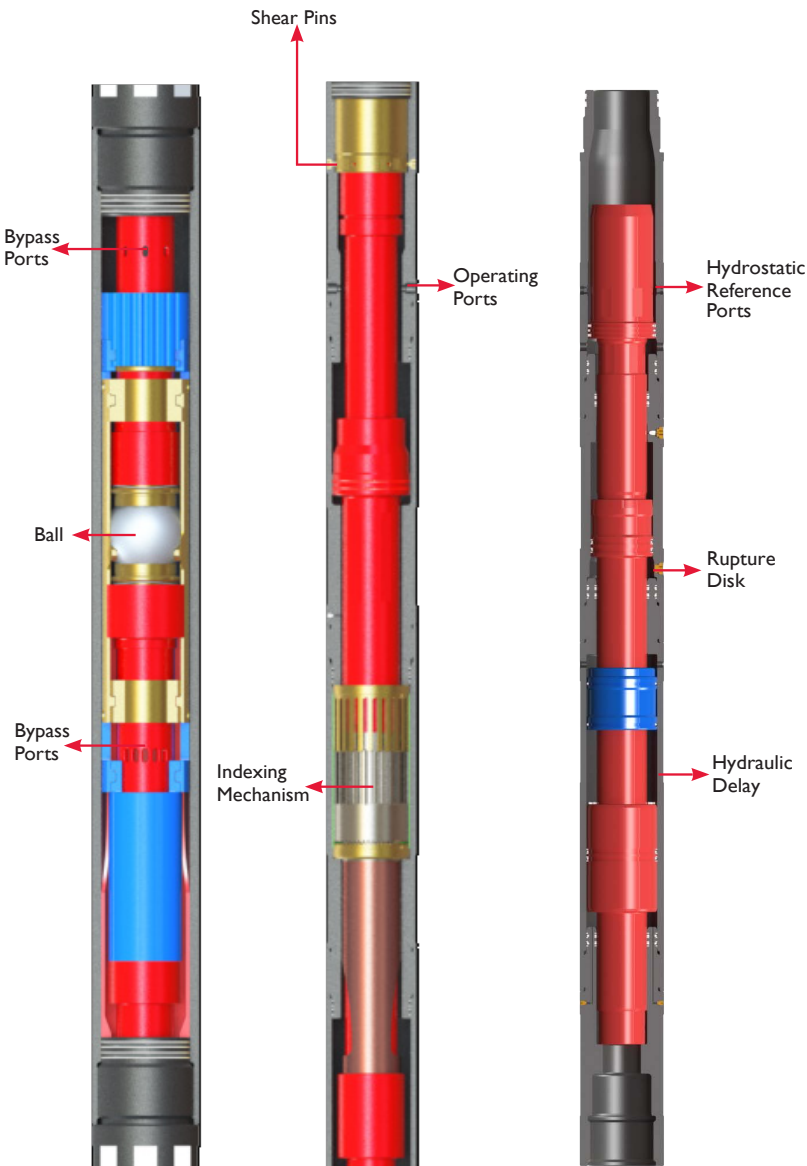













Annulus pressure operated multi-cycle ball valve to control flows and shut-ins



APPLICATIONS:

-  Down hole well control and testing operations
-  Tubing-conveyed perforating
-  Completions
-  Safety backup valve

FEATURES:

-  Unlimited number of cycles
-  Reliable closing force
-  Low operating pressures with high differential across the ball
-  Low nitrogen pressure on surface
-  Lock open position to safely run wire line or coil tubing
-  Fail closed position to provide an automatic emergency down hole close
-  Suitable for all conditions: high hydrostatic, H₂S, acid and heavy drilling fluids

The M2 Tester Valve is an annular pressure operated multi-cycle ball valve for use during well testing operations in HPHT environments. The tool can be locked open to allow operation of other services, including coil tubing, wire line, slick line and well kill operations. The bypass mechanism equalizes differential pressure across the ball (up to 15,000 psi) prior to cycling the tool to the open position. This reduces the amount of applied annulus pressure required to cycle the valve. The nitrogen section is boosted above the hydrostatic pressure downhole increasing the safety and reliability of the tool.

**Annulus pressure operated multi-cycle ball valve
to control lows and shut-ins**

SPECIFICATIONS:

O.D. in [mm]	5.0 [127]
I.D. in [mm]	2.25 [57]
LENGTH in [m]	294 [7.47] - 436 [11.10]
WEIGHT lb [kg]	1022 [464] - 1405 [637]
MAX TEMPERATURE degF [degC]	350 [177]
PRESSURE ABSOLUTE psi [kPa]	21,000 [144,789]
PRESSURE DIFFERENTIAL (annulus/tubing) psi [kPa]	15,000 [103,421]
PRESSURE ACROSS BALL STATIC psi [kPa]	15,000 [103,421]
PRESSURE ACROSS BALL OPENING psi [kPa]	12,000 [82,737]
CYCLES	Unlimited
TENSILE STRENGTH lbf [kN]	350,000 [1557]
CONNECTIONS (premium connections available)	3-1/2 API IF
SERVICE	Standard and sour service above 175 degF as per NACE MR 0175