



DRILLING SYSTEMS INTERNATIONAL



PBL Multiple Activation Bypass System Table

Tool size inches	3 1/2	4 3/4	6-1/4 (1)	6 1/2 (1)	6.75 (1)	8	8 1/4	9 1/2	11 JT (2)	16 JT (2)
Number of ports	2	2	2	2	2	2	2	2	1	1
Drift -when NO balls are in tool:SEE NOTES	0,94	1,125	1,125	1,125	1,125	1,375	1,375	1,5	1,5	1,5
Drift (when balls are in tool):	No drift	No drift	No drift	No drift	No drift	No drift	No drift	No drift	No drift	No drift
Maximum O.D.("):	3,5	4,75	6,25	6,5	6,75	8	8,25	9,5	11	16
Standard Rig ends:	2 3/8IF	3 1/2IF	4 1/2XH	4 1/2IF	4 1/2IF	6 5/8REG	6 5/8REG	7 5/8REG	4 1/2IF	4 1/2IF
Activation ball size("):	1 1/4	1 1/2	2	2	2	2 1/2	2 1/2	2 1/2	2	2
Locking Ball material/size("):	Torlon/.700	Torlon/1 1/8"	Ertalyte/1 1/8"	Ertalyte/1 1/8"	Ertalyte/1 1/8"	Ertalyte/1 3/8"	Ertalyte/1 3/8"	Ertalyte/1 3/8"	N/A	N/A
Steel de-activation ball size("):	1 1/16	1 3/8	1 3/8	1 3/8	1 3/8	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4
No. of balls needed to activate tool	1	1	1	1	1	1	1	1	1	1
No. of balls needed to de-activate tool	2	2	2	2	2	2	2	2	1	1
Number of Cycles:	3	4	4	4	4	5	5	5	5	5
Number of Cycles w/ Darted Ball in Tool:	2	3	3	3	3	4	4	4	3	3
Flow area(sq/in) through tool:	1,13	1,76	2,92	2,92	2,92	4,6	4,6	4,6	2,92	2,92
TFA(sq/in) when tool is open(Standard):	1,571	2,454	2,454	2,454	2,454	3,534	3,534	3,534	1,767	1,767
TFA(sq/in) when tool is open(Autolock):	N/A	1,901	1,901	1,901	1,901	2,863	2,863	2,863	N/A	N/A
Weight (lbs)	132	251	692	692	692	864	864	1 444	1 200	1 600
Tensile Strength (lbs)	490 000	1 000 000	1 900 000	2 500 000	3 100 100	3 500 000	3 700 000	6 000 000	3 100 100	3 100 100
Torsional Strength (lbs)	19 000	49 500	130 000	166 000	190 000	295 000	335 000	565 000	190 000	190 000
Make-Up Torque (ft-lbs)	3 700	11 500	26 710	34 190	34 840	41 800	45 450	81 290	34 840	34 840

** 1.125" Standard - Larger Ball Catchers available on request- See Note 3 (Ceramic coat reduces ID)

(2) Jetting Tools have 6-1/2" body and the housing is 11" or 16"

(3) Standard drift listed, larger drifts are available to accommodate coring balls, reamer balls and wireline accessories