

# RYPSUB-XB Circulation Sub

The Ryptx **RYPSUB-XB** is a simple and rugged conventional ball drop circulation sub configured as a single collar system with no mid-body connection. It is simple to use, with variable cycle capability. It uses a novel design ball disposal system that allows balls to be emptied without disassembly, allowing field service and multiple run usage.



## APPLICATIONS:

- Wellbore cleanout
- Managed Pressure Drilling
- Underbalanced Drilling
- Cementing operations
- Workover and completions
- Stuck pipe mitigation operations

## FEATURES:

- Single collar design
- No mid body connections
- Variable cycle capability
- Standard API connections
- Rugged, proven ball drop activation
- High strength material options for Deep Gas
- Customizable housing for increased cycles
- R&M options for staged repairs

	<b>XB 500</b>	<b>XB 675</b>	<b>XB 825</b>
<b>Max Tool OD (in)</b>	5.0"	6-3/4"	8-1/4"
<b>Top Connection</b>	NC 38 BOX	NC 50 BOX	6-5/8" REG BOX
<b>MUT Top Connection (ft.lb)</b>	11,500	35,000	46,000
<b>Bottom Connection</b>	NC 38 PIN	NC 50 PIN	6-5/8" REG PIN
<b>MUT Bottom Connection (ft.lb)</b>	11,500	35,000	46,000
<b>No. of Ports</b>	2	2	2
<b>Port Diameter (in)</b>	1.10	1.35	1.35
<b>Activation Ball Size (in)</b>	1.50	2.00	2.50
<b>De-Activation Ball Size (in)</b>	1.13	1.13	1.38
<b>No. of balls to activate</b>	1	1	1
<b>No. of balls to deactivate</b>	2	2	2
<b>Max Cycles (standard housing)*</b>	3	3	3
<b>TFA Through Tool (sq.in)</b>	1.60	2.80	4.50
<b>TFA Open Ports (sq.in)</b>	1.90	2.80	2.80
<b>Tool Weight (lb)</b>	200	430	640
<b>Tool Length (ft)</b>	3.5	4.5	5.0
<b>Survivable Overpull (lb)</b>	475,000	950,000	1,600,000
<b>Survivable Torque (ft.lb)</b>	19,000	58,000	76,000

*\* Increased cycles possible with increased length housing collar and ball catcher.*

### CONTACT TO DISCUSS:

- Operating temperature range for the desired application
- Chemical compatibility with specialist drilling fluids
- Compatibility and operation with third party downhole tools
- Installation, handling, and operating guidelines
- Increased cycle requirements

**HIGH TEMP or HIGH PRESSURE** application? Contact Ryptx about the **RYPSUB-XH**

**FAST DART** needed? Contact Ryptx about the **RYPSUB-XF**