# 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

| Column1 | XB 500 | XB 675 | XB 825 |
|---|---|---|---|
| Max Tool OD (in) | 5.0" | 6-3/4" | 8-1/4" |
| Top Connection | NC 38 BOX | NC 50 BOX | 6-5/8" REG BOX |
| MUT Top Connection (ft.lb) | 11,500 | 35,000 | 46,000 |
| Bottom Connection | NC 38 PIN | NC 50 PIN | 6-5/8" REG PIN |
| MUT Bottom Connection (ft.lb) | 11,500 | 35,000 | 46,000 |
| No. of Ports | 2 | 2 | 2 |
| Port Diameter (in) | 1.10 | 1.35 | 1.35 |
| Activation Ball Size (in) | 1.50 | 2.00 | 2.50 |
| De-Activation Ball Size (in) | 1.38 | 1.38 | 1.38 |
| No. of balls to activate | 1 | 1 | 1 |
| No. of balls to deactivate | 2 | 2 | 2 |
| Max Cycles (standard housing)* | 3 | 3 | 3 |
| TFA Through Tool (sq.in) | 1.60 | 2.80 | 4.50 |
| TFA Open Ports (sq.in) | 1.90 | 2.80 | 2.80 |
| Max Flow Rate, closed (gpm) | 500 | 650 | 900 |
| Min Bypass Flow Rate (gpm) | 250 | 350 | 450 |
| Max Bypass Flow Rate (gpm) | 550 | 600 | 1000 |
| Tool Weight (lb) | 200 | 430 | 640 |
| Tool Length (ft) | 3.5 | 4.5 | 5.0 |
| Survivable Overpull (lb) | 475,000 | 950,000 | 1,600,000 |
| Survivable Torque (ft.lb) | 19,000 | 58,000 | 76,000 |

## 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**