

PRODUCT OVERVIEW:

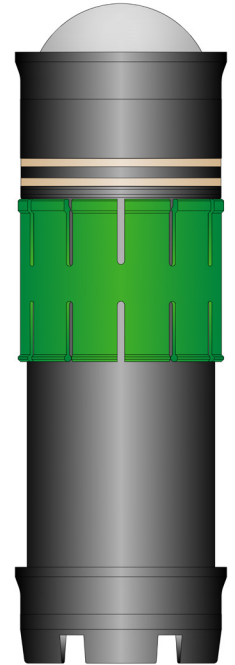
The Smart Dart technology uses proven concepts to improve efficiencies while completing a well. This simple and cost effective solution gives operators flexibility in stimulation design. The Smart Dart Large Bore Completion System "Smart Dart" is designed to enable full bore communication between the well bore and reservoir through casing installed sleeves.

The Resource's Smart Dart system boasts identical sleeves that do NOT rely on a profile or locking key mechanisms. This gives the operator the convenience of placing the sleeves in any order or location in the well, reducing complexity and risk of the install. The Smart Dart containing a dissolvable ball is launched from surface to land in a specific sleeve, the Dart can be launched directly into the flow. Proprietary purley mechanical indexing components ensure the Dart can positively identify and land in the correct sleeve. The Dart allows for an unlimited number of sleeves to be run by only increasing the length of the Dart itself. Once the Dart has landed in the intended sleeve it is then locked in place and makes a seal, differential pressure is built to open the sleeve and begin the stimulation. Once the stimulation is completed, the Dart allows for the well to be produced immediately through a bypass while the operator waits for the balls to dissolve. Once the balls dissolve, a large internal bore allows for immediate production capability.

The sleeve uses the same technology as the proven Zone Striker/ Zone Seeker systems. The Smart Dart Sleeves do not require handling joints and can be torqued through providing a safer, and simpler install. All sleeves match strength and pressure requirements of the matching casing string as per API. Standard configurations are L-80 and P-110 though alternate materials are available for more severe environments and pressure requirements.

FEATURES:

- Unlimited number of stages
- No Mill out
- No coiled tubing
- No wireline
- Reduce Frac HP
- Continuous stimulation without intervention
- Mechanical locating system allows for precise positioning
- Simple indexing system with minimal components
- Targeted formation access
- Large ID after ball dissolves
- Large bore stim means no rate or concentration restrictions
- Lower stimulation pressures equal reduced pumping cost
- IDENTICAL sleeves for every stage simplifies install. Reducing rig time. Reducing risk
- Intelligence in the Dart allows placement positions to be determined after install
- Short compact system ensures ease of handling and transport. No pups required for sleeve install
- Proven sleeve design
- Hardened no-go profile prevents washout or erosion
- Sleeve locks open
- Large external holes aid in formation breakdown
- Launcher friendly
- Future adaptations to the sleeve allow for sleeves to replace collars. Further reducing completion cost.
- Future adaptations will allow for multiple sleeves to be opened by one Dart. Allowing operators to perform limited entry style stimulation
- Future adaptations will allow for a dissolvable dart. Giving operators an unrestricted well bore and allowing the use of closable sleeves.



SAVE TIME • SAVE COST • REDUCE RISK



SMART DART - LARGE BORE COMPLETION SYSTEM

PRODUCT NO. 40-459-XXXX-XXX

Get More From Every Completion

TECHNICAL BROCHURE

Technical Data:

Smart Dart - Large Bore Completion System Technical Specifications													
Casing				Sleeve						Dart			
Size		Weight Range		OD		ID		Makeup Length		OD		ID	
in	mm	lb/ft	kg/m	in	mm	in	mm	ft	m	in	mm	in	mm
4.500	114.3	11.60	17.26	5.74	145.8	3.58	90.9	2.03	0.62	3.64	92.5	3.05	77.5
		-	-					2.17	0.66			2.88	73.2
4.500	114.3	13.50	22.47	5.63	143.0	3.58	90.9	2.17	0.66	3.64	92.5	2.88	73.2
		11.60	17.26										
5.500	139.7	17.00	25.30	6.75	171.5	4.39	111.5	2.43	0.74	4.45	113.0	3.73	94.7
		-	-										
5.500	139.7	23.00	34.23	6.75	171.5	4.39	111.5	2.43	0.74	4.45	113.0	3.73	94.7
		17.00	25.30										