

## TrueJet uniform-hole perforating charges Improve fracture distribution and reservoir communication

TrueJet™ perforating charges from Baker Hughes create uniform entry holes, helping customers to improve fracture distribution and reservoir communication in unconventional wells. Developed through extensive testing and modeling, the charges deliver perforations with a consistent entryhole diameter and shape, regardless of gun configuration, orientation, or position within the casing.

Unlike many conventional charges that can create rugose, multi-sized perforations that adversely affect flow efficiency and treatment delivery, the uniform holes generated by TrueJet charges help to optimize the efficiency of the perforation clusters, ensuring even distribution of fracture fluids and/or proppant.

The uniform holes also enable reliable diversion rates and designed treatment pressures, ensuring stimulation programs can be executed to plan.

TrueJet perforating charges come in two charge cases, one fully compatible with industry-standard perforating hardware and another in a Baker Hughes gun system case. All charges undergo comprehensive testing and qualification using API RP 19B practices. The charges have also been qualified under stressed rock conditions and are available in both RDX and HMX versions.

Contact your local Baker Hughes representative today to learn more about how TrueJet perforating charges can help you improve fracturing treatments and reservoir access in your next unconventional well.

## **Applications**

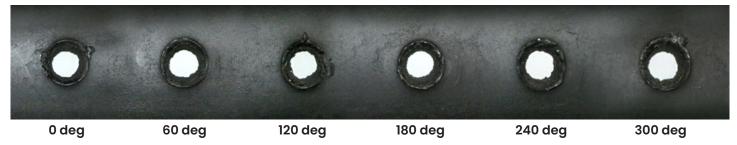
- Unconventional reservoirs
- · Vertical and horizontal wells
- Wireline, slickline, and tubing-conveyed operations

## **Benefits**

- Generates uniformly sized and shaped entry holes
- Improves flow efficiency of perforation clusters
- Enables uniform stimulation treatment distribution
- Enables reliable diversion rates and designed treatment pressures
- Offers full compatibility with industry-standard perforating hardware
- Meets API RP 19B qualification

TrueJet charge									
Carrier O.D. inches (mm)	Casing specifications	Average hole size	Hole size variance	Net explosive weight	Stressed sandstone penetration*	API concrete penetration data	Charge name	RDX charge part number	HMX charge part number
2³/₄ in. (70)	4½ in., 11.6# P110	0.36 in.	7.40%	16 gm	8.6 in.	15.5 in.	2716 TrueJet 30	A1013242300	A1013242304
3½ in. (79)	4½ in., 11.6# P110	0.34 in.	5.84%	23 gm	7.5 in.	14.5 in.	3123 TrueJet 30	A1013243300	A1013243304
		0.42 in.	4.89%	23 gm	7.5 in.	14.5 in.	3123 TrueJet 40	A1013243400	A1013243404
	5 in., 18# P110	0.32 in.	4.54%	23 gm	8.0 in.	14.5 in.	3123 TrueJet 30	A1013243300	A1013243304
		0.43 in.	4.82%	23 gm	8.0 in.	14.5 in.	3123 TrueJet 40	A1013243400	A1013243404
	5½ in., 23# P110	0.32 in.	6.70%	23 gm	8.0 in.	14.5 in.	3123 TrueJet 30	A1013243300	A1013243304
		0.40 in.	4.34%	23 gm	8.0 in.	14.5 in.	3123 TrueJet 40	A1013243400	A1013243404
3³/ <sub>8</sub> in. (86)	5½ in., 20# P110	0.41 in.	8.90%	23 gm	8.0 in.	14.5 in.	3323 TrueJet 40	A1013245400	A1013245404
TrueJe	et-P charge:	s							
3½ in. (79)	4½ in., 11.6# P110	0.35 in.	3.56%	23 gm	7.5 in.	14.5 in.	3123 TrueJet-P 30	A1013244300	A1013244304
	4½ in., 11.6# P110	0.42 in.	6.19%	23 gm	7.5 in.	14.5 in.	3123 TrueJet-P 40	A1013244400	A1013244404
	4½ in., 11.6# P110	0.47 in.	5.70%	23 gm	7.5 in.	14.5 in.	3123 TrueJet-P 50	A1013244500	A1013244504
	5 in., 18# P110	0.31 in.	5.52%	23 gm	8.0 in.	14.5 in.	3123 TrueJet-P 30	A1013244300	A1013244304
	5 in., 18# P110	0.40 in.	5.56%	23 gm	8.0 in.	14.5 in.	3123 TrueJet-P 40	A1013244400	A1013244404
	5 in., 18# P110	0.48 in.	10.83%	23 gm	8.0 in.	14.5 in.	3123 TrueJet-P 50	A1013244500	A1013244504
	5½ in., 23# P110	0.33 in.	3.83%	23 gm	8.0 in.	14.5 in.	3123 TrueJet-P 30	A1013244300	A1013244304
	5½ in., 23# P110	0.43 in.	7.70%	23 gm	8.0 in.	14.5 in.	3123 TrueJet-P 50	A1013244500	A1013244504

<sup>\*</sup>Penetration test performed in Berea Sandstone at 6,500 psi (448 bar) unconfined compressive strength with 9,500 psi (655 bar) overburden pressure



TrueJet perforating charges create uniform entry hole sizes with less than 10% deviation, helping to improve flow efficiency and reservoir access

