



# 2.875 in. HERO® PerFRAC

## 0.30 in. EH, HMX, PFC-2716-430

### TECHNICAL INFORMATION:

#### APPLICATION:

HERO®PerFRAC charges are specifically designed to have consistent entry hole sizes, regardless of gun position, to improve the efficiency of fracturing operations in today's unconventional reservoirs.

#### SPECIFICATIONS:

##### NET EXPLOSIVE WEIGHT:

16.0 grams

##### TOTAL CHARGE WEIGHT:

154 grams

##### TEMPERATURE RATING:

400°F - 1 hour  
335°F - 24 hours  
310°F - 100 hours

#### PACKAGING:

##### QUANTITY PER BOX:

50

##### NET ITEM WEIGHT:

800 grams

##### NET CHARGE WEIGHT:

7700 grams

##### TOTAL PACKAGE WEIGHT:

8200 grams

##### BOX DIMENSIONS:

14 in. W x 14 in. L x 9 in. D

##### SHELF LIFE:

5 years (left in original packaging)

##### PACKAGE TYPE:

Charges in foil bag with desiccant; inside cardboard box with cardboard spacers

#### SHIPPING:

##### CLASSIFICATION:

1.4D

##### DOT NUMBER:

EX1994050290

##### CE NUMBER:

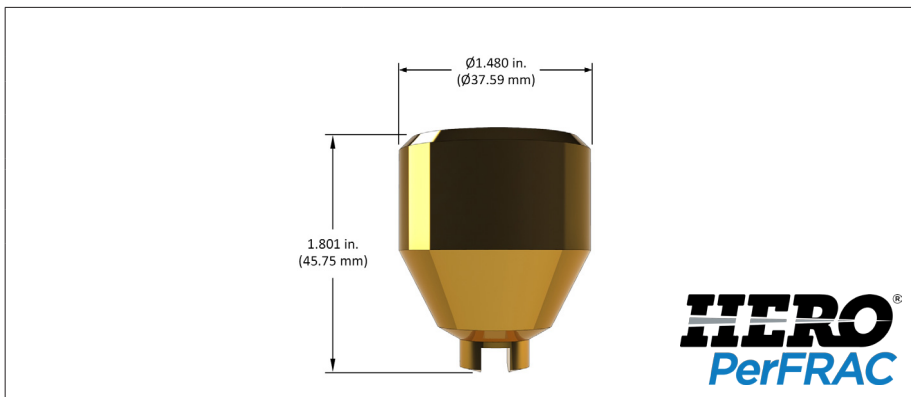
Not currently CE certified

##### UN NUMBER:

UN0440

##### PROPER SHIPPING NAME:

CHARGES, SHAPED



#### HOLE SIZE DATA:

CASING	SHOT DENSITY / PHASING	AVG. HOLE SIZE (IN.)	MIN. HOLE SIZE (IN.)	MAX. HOLE SIZE (IN.)	HOLE VARIATION (STDEV)
4.50 in. 11.6# P-110	6 spf / 60°	0.29	0.28	0.32	5.5%
4.50 in. 13.5# P-110	6 spf / 60°	0.30	0.27	0.31	5.4%
4.50 in. 15.1# P-110	6 spf / 60°	0.30	0.29	0.30	1.7%
5.50 in. 17# P-110	6 spf / 60°	0.28	0.24	0.30	7.5%
5.50 in. 20# P-110	6 spf / 60°	0.28	0.24	0.30	8.2%
5.50 in. 23# P-110	6 spf / 60°	0.28	0.26	0.32	7.6%

#### PENETRATION DATA - API RP-19B SECTION 2:

FORMATION CORE TYPE	PENETRATION (IN.)	OVERBURDEN (PSI)	UCS (PSI)	POROSITY
Berea	8.63	9,500	4,862	20.1%
Shale	5.63	9,500	19,838	6.0%

#### SYSTEM TESTED:

2.875 in. 6 spf 60° in 4.50 in. 11.6# P-110

#### DEBRIS DATA - API RP-19B SECTION 5:

Weight of debris lost at detonation 105.33 grams per linear foot  
Total weight of debris lost 177.33 grams per linear foot  
Volume of total debris lost 93.41 cm³ per linear foot

#### GUN SWELL DATA - API RP-19B SECTION 6:

AIR (IN.)	FLUID (IN.)
2.94 (4 spf)	2.92 (6 spf)