4.625 in. MILLENNIUM® II, HMX, 5SPF Shaped Charge

**Part No.:** 101702911

**CE Certificate No.:** CE0519, ENB/B/036

**DOT EX No.:** EX1996080028

**PROPER SHIPPING NAME**

UN0440, CHARGES, SHAPED, 1.4D, PG II

**Technical Drawing**

![Technical Drawing](image)

1. Case
2. Liner
3. Explosive, booster
4. Explosive, main
5. Glue ring

**Technical Information**

**APPLICATION:**

Shaped charge for oilfield use

**PERFORATING SYSTEM**

SPECIFICATION (w/ cold drawn steel):
- **Diameter:** 4.625 inch (117.4 mm) OD
- **Collapse rating:** 20,000 psi (1379 bar)
- **Tensile rating:** 414,000 lbs (187,790 kg)

**EXPLOSIVES:**

- Booster: Pure HMX, 1g
- Main load: Desensitized HMX, 38 g
- Density: > 1.5 g/cm³

**TEMPERATURE LIMITS:**

- **400 F / 204 C** 1 h
- **338 F / 170 C** 24 h
- **310 F / 154 C** 100 h

**PERFORMANCE:**

- **Hole Diameter:** 0.44 in (11.18 mm)
- **Penetration:** 44.7 in (1135 mm)

**SHELF LIFE:**

10 years when stored unopened in original packaging. Storage temperature:
- **0 C / 32 F min**
- **54 C / 130 F max**

**DISPOSAL:**

Dispose of product not suitable for oilfield use according to applicable laws and regulations.

**Packing Information**

- **Quantity per box:** 30 pieces
- **Gross weight per box:** 19.5 kg (43 lbs)
- **Net weight per box:** 17.6 kg (38.7 lbs)
- **NEC per box:** 1.17 kg
- **Box dim:** 45.7 x 30.5 x 20.3 cm
- **18 x 12 x 8 in**
- **Package type:** Trays with desiccant enclosed by vacuum bag, then placed inside fibreboard box.

**Product Designation:** HES-APRV-004

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