



APPLICATIONS

- Thermal Production
 - SAGD
 - CSS
- Tubing Deployed
- Liner Deployed (with Screens)

FEATURES & BENEFITS

- Production through field adjustable Nozzles
- 550degF at 2000 psi rating
- Optional strainer or debris barrier
- Balanced flow across length of liner
- API or Premium Connections Available

Nozzle Specifications

| Nozzle Sizes | # of Nozzles |
|---------------------------|--------------|
| 1.6mm, 2.5mm, 4.0mm, 10mm | Up To 8 |

PRO-FRAC

ICD Thermal Orifice Sub

The ICD Orifice Sub, available in multiple sizes, allows ICDs to be deployed as part of a tubing string in order to strategically reduce flow from certain intervals of a well. Pair with the Thermal Packer Cup, complete with Profrac sealing technology, to compartmentalize the well.

Available in three separate configurations, stand alone, strainer and debris barrier, the 945 Sub is adaptable for a variety of applications. Our strainer is deployed in situations where large particulate in the well bore risks plugging production orifices. The unique debris barrier is deployed in scenarios where it is suspected the primary sand control liner has failed or a greater level of debris filter is desirable. Our standard debris barrier is complete with screen media and other media is available upon request.

PERFORMANCE SPECIFICATIONS

| Type | Designation | Liner Size (mm) | Weight (kg/m) | Body OD (mm) | Inner Diameter (mm) | Length (m) | Tensile (daN) | Pressure Rating (MPa) | Temp Rating (degC) |
|-----------------------|-------------|-----------------|---------------|--------------|---------------------|------------|---------------|-----------------------|--------------------|
| 01: No Filter | J | 88.9 | 13.7 | 104.1 | 73.4 | 0.55 | 71000 | 14 | 288 |
| | K | 101.6 | 14.1 | 116.8 | 85.6 | 0.57 | 87000 | 14 | 288 |
| | L | 114.3 | 17.26 | 129.5 | 99.1 | 0.6 | 118000 | 14 | 288 |
| | M | 127 | 22.3 | 142.2 | 109.2 | 0.62 | 140000 | 14 | 288 |
| | N | 139.7 | 25.3 | 154.9 | 122.4 | 0.65 | 162000 | 14 | 288 |
| 02: Strainer | P | 168.3 | 29.7 | 183.5 | 147.8 | 0.7 | 180000 | 14 | 288 |
| | J | 88.9 | 13.7 | 117.4 | 73.4 | 0.55 | 71000 | 14 | 288 |
| | K | 101.6 | 14.1 | 130.1 | 85.6 | 0.57 | 87000 | 14 | 288 |
| | L | 114.3 | 17.26 | 142.8 | 99.1 | 0.6 | 118000 | 14 | 288 |
| | M | 127 | 22.3 | 155.5 | 109.2 | 0.62 | 140000 | 14 | 288 |
| 03: Debris Barrier | N | 139.7 | 25.3 | 168.2 | 122.4 | 0.65 | 162000 | 14 | 288 |
| | P | 168.3 | 29.7 | 196.8 | 147.8 | 0.7 | 180000 | 14 | 288 |
| | J | 88.9 | 13.7 | 120.65 | 73.4 | 0.55 | 71000 | 14 | 288 |
| | K | 101.6 | 14.1 | 133.35 | 85.6 | 0.57 | 87000 | 14 | 288 |
| | L | 114.3 | 17.26 | 146.05 | 99.1 | 0.6 | 118000 | 14 | 288 |
| | M | 127 | 22.3 | 158.75 | 109.2 | 0.62 | 140000 | 14 | 288 |
| | N | 139.7 | 25.3 | 171.45 | 122.4 | 0.65 | 162000 | 14 | 288 |
| | P | 168.3 | 29.7 | 200.05 | 147.8 | 0.7 | 180000 | 14 | 288 |