



 **URG - Full Gage Underreamer**

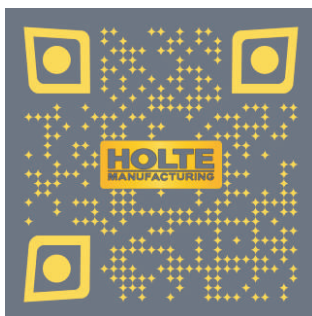
**HOLTE**  
**MANUFACTURING**



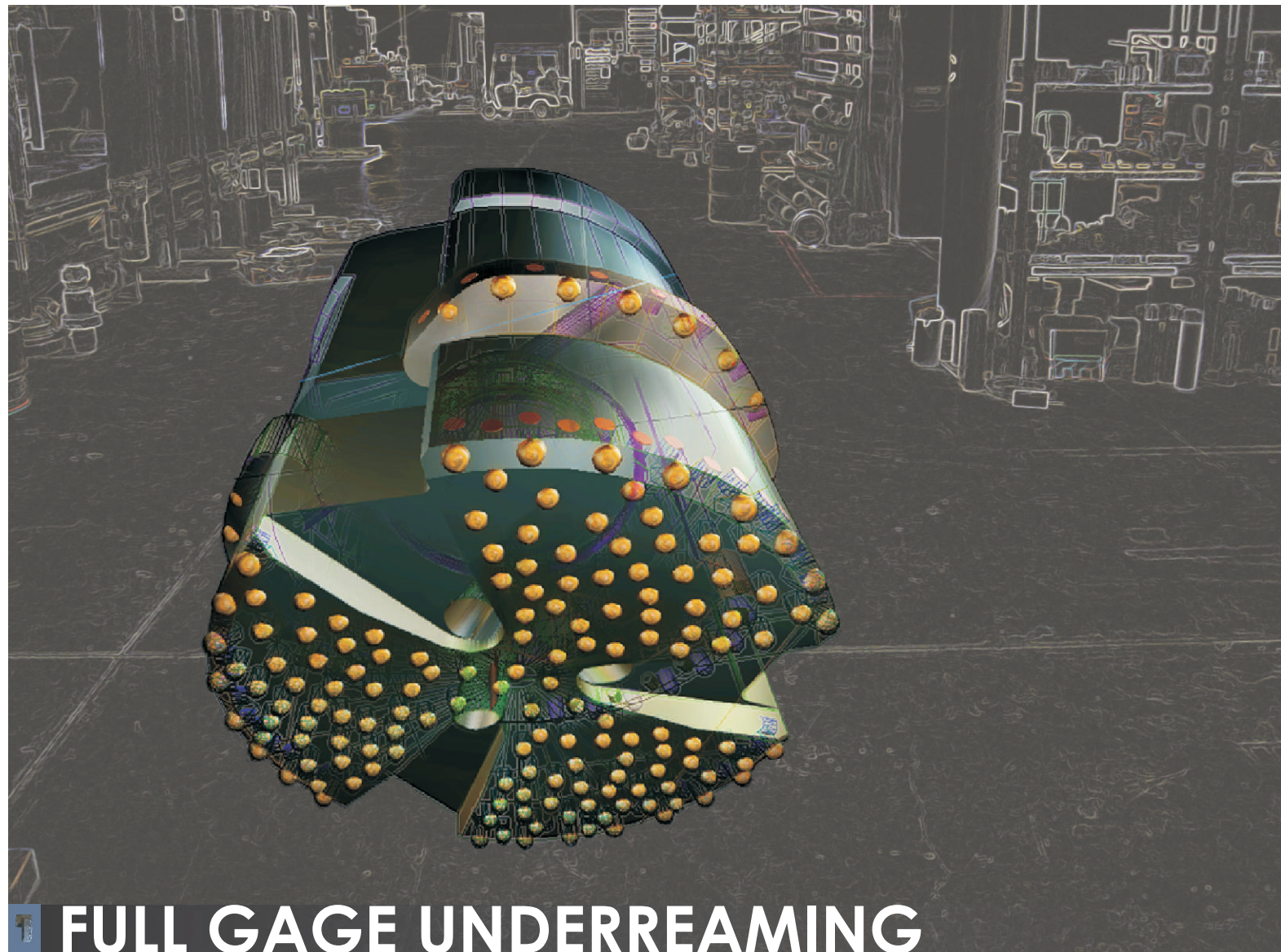
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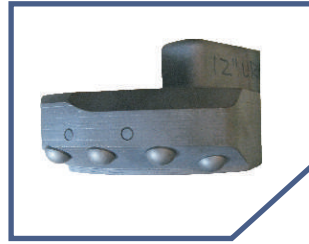
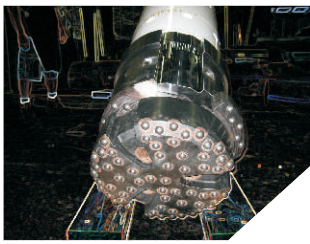


# FULL GAGE UNDERREAMING

## Underream Faster and Straighter

HOLTE's Underreamer Gage, or URG<sup>®</sup>, uses retractable arms to provide the most effective way to drill through overburden and install your Casing. Over the long-haul, full gage underreaming provides the most cost effective overburden drill bit.

- More contact surface than other underreamers results in faster penetration.
- 360° concentric underreaming results in straighter holes than eccentric underreaming.
- Low cost replaceable Arms extend the life of the system.
- Available in RC or Conventional in a variety of Shank styles.
- Tapered Arms and 30° reverse rotation retract the arms without risk of unthreading pipe.
- Less moving parts, bigger arms, and simpler operation than other retractable style underreamers.
- Wears slower than eccentric style (eccentric only reams 50% of the hole at a time).



## **Exploded URG Model**

### **DRIVER**

Available in standard shanks and the Holte splined shank. URGs can be for either RC or Conventional Drilling.

### **RETAINING PINS**

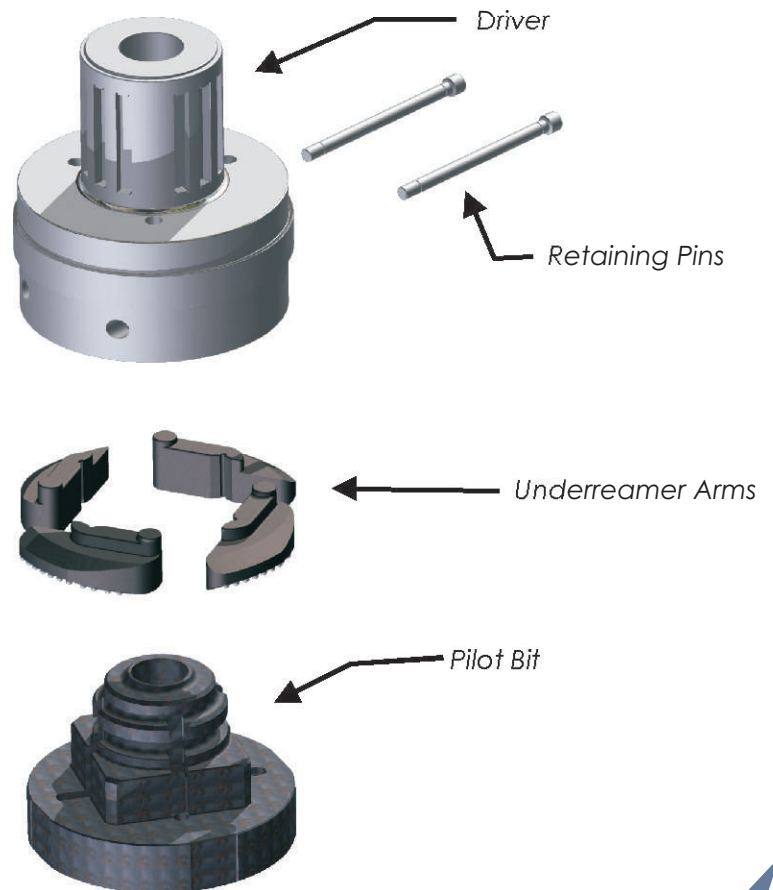
Allow for quick and easy replacement of the arms. Pull the pins, lift the driver off, install new arms when needed and your underreamer is renewed and ready to drill.

### **UNDERREAMER ARMS**

A cam shaped shaft on the Pilot Bit extends the arms. The retractable arm design permits concentric full gage underreaming.

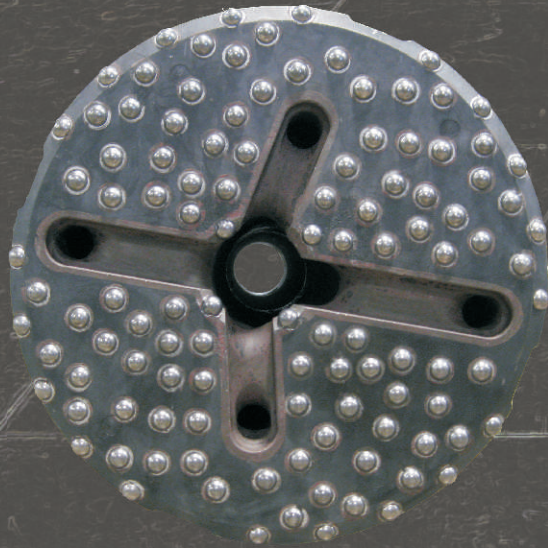
### **PILOT BIT**

Clockwise rotation when in contact with the ground extends the arms. The drag of the Bit at the bottom of the bore hole causes the cam to push out the arm. Counter-clockwise rotation with the Bit on the bottom retracts the arms.

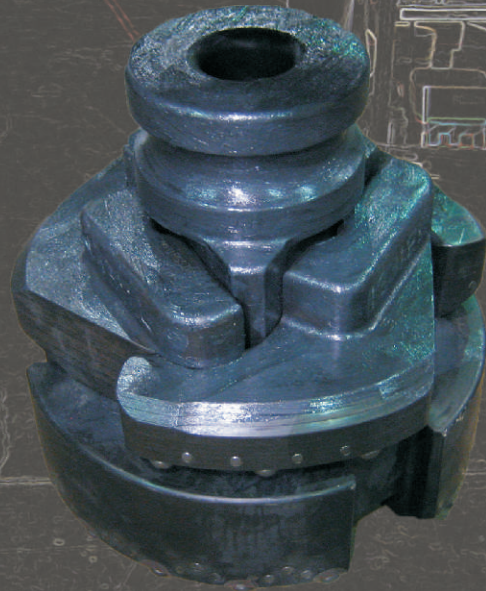


A driller in Hong Kong was using a popular Asian made winged underreamer. The pilot bit had 3 pieces that swing out. Due to the design, it wore out too quickly. Besides costing more than expected, they were falling behind schedule replacing bit. After switching to Holte's design that separates the pilot bit and wings let them drill farther and dramatically lowered the overall cost.





**RC**



**Conventional**

## **URG<sup>®</sup> OPTIONS AND FEATURES**

**An Underreamer for every hammer and drilling style.**

HOLTE has been making URG<sup>®</sup> systems for over 25 years. They are tried and true. We have evolved the technology with the Drilling industry to both make them simple, robust, and provide the options needed for different applications.

- RC cuttings evacuation hole is off-center in pilot bit to minimize plugging.
- Variety of shank styles and sizes: IR, Mission, QL, and Holte.
- Use with a Casing Hammer or Drive Shoes.
- Replaceable Pilot Bit.
- Retaining Pin design permits quick and easy changing of the Arms.
- Carbide or Diamond Buttons.
- RC acts like jetting sub (lift and it sucks the whole clean).



# URG® FEATURES AND SPECIFICATIONS

For the same size eccentric underreamer (URE), the pilot bit will wear out much faster. So while the initial cost of a URE is lower, the cost over-time will be much lower for a URG system. Combining this with straighter holes and faster drilling makes drillers that have tried them switch over to the URG system.



Tip: Some Drillers will use an RC URG drilling counterclockwise with Holte's Hex Joint Drill Pipe to start their hole with a tighter Casing fit to reduce blow out.

Call or email Holte for pricing & consulting at +1 541.935.5054 or [sales@drilling.com](mailto:sales@drilling.com).

URGs® come in a variety of sizes. They can be customized for non-standard casing or to meet special borehole diameter needs and applications.

URG® Size Chart			
URG or Casing Size	Borehole Diameter* (in)	Casing OD (in)	Clearance (in)**
10	10.90	10.75	0.08
12	13.10	12.75	0.18
14	14.40	14.00	0.20
16	16.50	16.00	0.25
18	18.40	18.00	0.20
24	24.90	24.00	0.45
32	33.13	32.00	0.57
34	35.13	34.00	0.56
36 <sup>+</sup>	36.80	36.00	0.40



Specification subject to change. \*Borehole diameter is minimum after button wear (does not include button height 0.05-0.625"). \*\*Clearance is the distance from each side of the URG to the casing wall (i.e. half of Casing ID - URG OD). Custom sizes and sizes over 36" available upon request.



HOLTE Manufacturing

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## ■ Veneta, Oregon

Holte's **manufacturing facility** in Veneta, Oregon is home to the innovating manufacturing team that produces the quality drilling tools Holte is known for. This is headquarters for our design, machining, inventory, and shipping center as well as the office and support staff. If your project has the need, Holte is set up to manufacture with a rapid and flexible turnaround time for custom projects.

Feel free to schedule a visit as we have an open door policy extended to Holte customers for tours and consulting.

## ■ Springfield, Oregon

Holte's **heat treatment facility** in Springfield, Oregon houses over half a dozen industrial ovens, a pit furnace, an endothermic generator and several styles of quench tanks to ensure that our final products are the ultimate balance between hardness and durability, while allowing careful control throughout the process.

## ■ Veneta, Oregon

Holte's separate **fabrication facility** and storage yard in Veneta, Oregon is for custom and retrofit work on drill rigs as well as a product testing grounds for our tooling.

Holte is known for their pride and excellence in workmanship with steel fabrication, welding, hydraulic, and pneumatic work.

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