

## Oil and gas components

### Oil and gas carbon steel bull plugs and swage nipples

The aluminum and steel impact extrusion process produces high-density, accurate, and superior parts for the oil and gas industry. Our extruded parts have highly uniform metal grain alignment for quality, strength, and durability that machining or casting processes cannot match.



#### Features

- Material: 1018 steel per ASTM A234/ A234M WPB
- Design specification: MSS SP-95
- Thread specification: ASME B1.20.1
- Superior strength through cold-forming process
- Marking for MSS SP-95 compliance



Learn more at:  
[thunderbird-metals.com](http://thunderbird-metals.com)

# Oil and gas components

## More than a decade manufacturing oil and gas components

Since 2009, we have supplied vital, difficult-to-manufacture parts to the oil and gas industry, many of them cold-forged from carbon steel billet. Some parts feature complex internal geometries that are difficult to machine. Our aluminum and steel impact extrusions are available in multiple part configurations: square-cut, beveled for butt weld, grooved per customer specification, threaded, or threaded and tapped.



## Swage nipples

PRODUCT	Outer diameter (in)	Large outer diameter (in)	Small outer diameter (in)	Finished length (in)	Wall thickness large outer diameter	Wall thickness small outer diameter	Weight (lbs)
2" x 1" STD	2.375	2.375	1.320	6.600	0.154	0.133	1.54
2" x 1" XH	2.375	2.375	1.320	6.500	0.218	0.179	2.13

## Bull plugs

PRODUCT	Outer diameter (in)	Finished length (in)	Wall thickness (in)	Weight (lbs)
2" STD	2.375	4.000	0.183	1.95
2" XH	2.375	4.000	0.218	2.15
2" XXH	2.375	4.000	0.436	3.22
3" STD	3.500	6.000	0.216	4.80
3" XH	3.500	6.000	0.300	5.95
4" STD	4.500	7.000	0.237	8.25
4" XH	4.500	7.000	0.337	10.40