

ADVANTAGES OF SEAMLESS RINGS

- ✓ **No waste**
No drops of expensive plate
- ✓ **Superior Quality**
Circumferential grain flow
- ✓ **Lower Cost**
Eliminate costly handling, layout and production time



McInnesRolledRings.com

1533 East 12th Street • Erie, PA 16511 USA
Phone: 814.459.4495 • Fax: 814.459.8443

GUIDEBOOK TO SEAMLESS ROLLED RINGS



McINNES
ROLLED RINGS

ROLLED RINGS

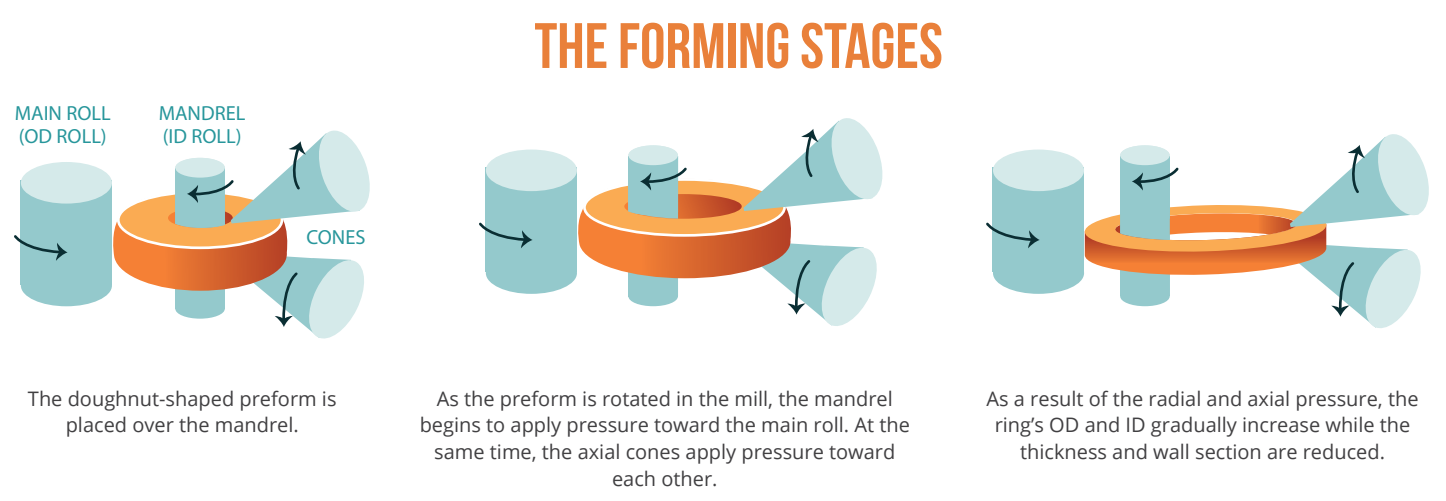
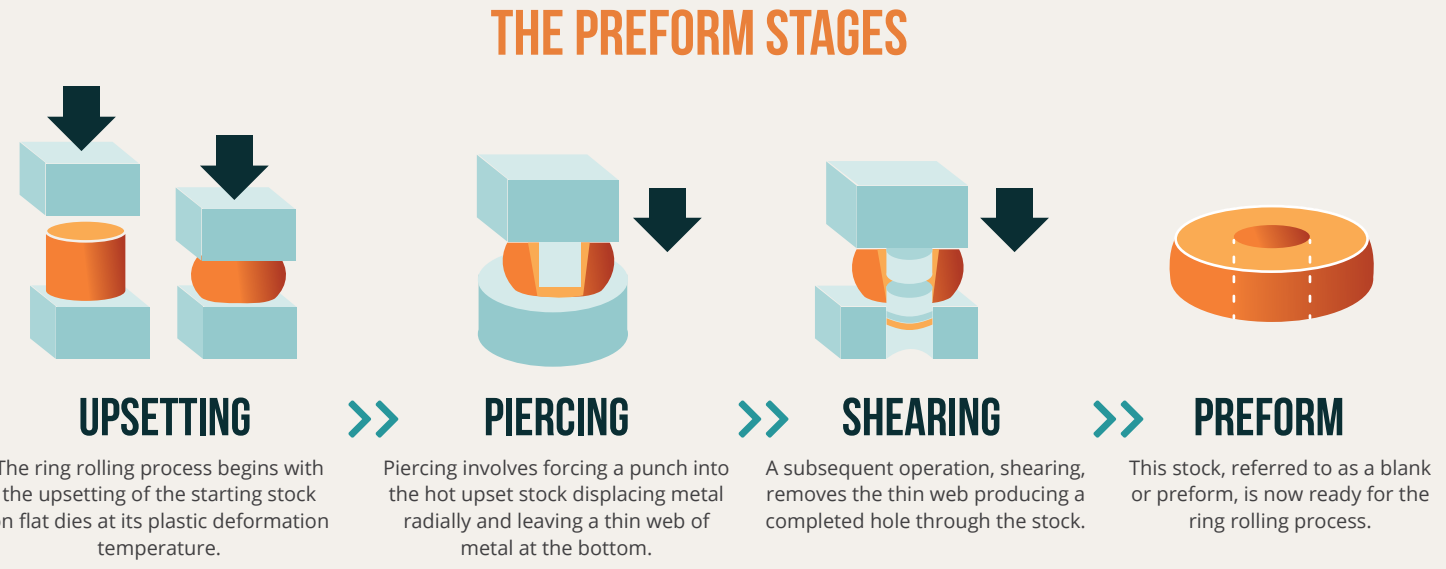
At McInnes Rolled Rings, we specialize in seamless rolled rings up to 144" OD and forged discs up to 54" in diameter. We work with a variety of carbon, alloy and stainless steels.

This Guide Book will better assist you in understanding our product and terminology of forgings.

If there are any additional questions, please contact us at McInnes, and we will gladly help.

THE FORGING PROCESS

HOW WE ROLL RINGS



MATERIAL GRADES

WHAT WE ROLL

CARBON

| | | |
|------|----------------|---------------|
| 1010 | 1040 | ASTM A350 LF2 |
| 1018 | 1045 | ASTM A350 LF6 |
| 1020 | 1050 | ASTM A266 CL2 |
| 1022 | 1070 | ASTM A266 CL4 |
| 1029 | 1552 | ASTM A694 |
| 1030 | ASTM A105 | ASTM A707 L2 |
| 1035 | ASTM A181 CL70 | |

ALLOY

| | | |
|------|--------------|---------------|
| 3310 | 4320 | ASTM A182 F9 |
| 3311 | 4340 | ASTM A182 F11 |
| 3312 | 4820H | ASTM A182-F22 |
| 4130 | 8620H | Cr-Mo-V |
| 4140 | 8630 | NiCrMoV |
| 4145 | 8822H | H-13 |
| 4150 | 9310 | HY-80 |
| 4170 | ASTM A182 F5 | HY-100 |

STAINLESS

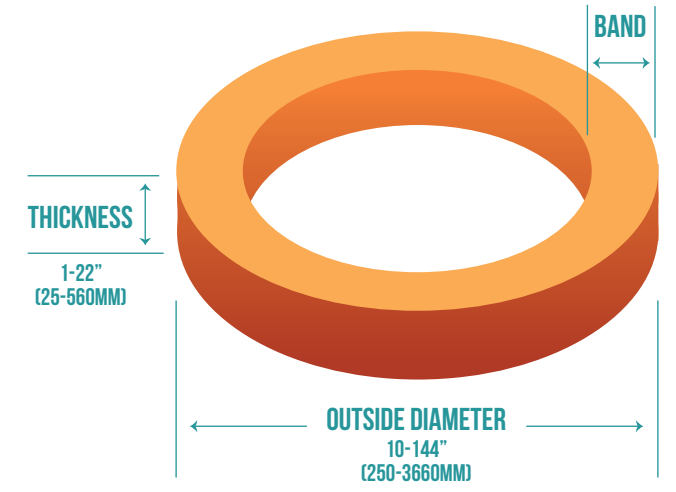
| | | |
|------------|------------|--------|
| 300 SERIES | 400 SERIES | Duplex |
|------------|------------|--------|

BEARING GRADES

| | |
|---------------------------|------|
| 52100 GRADE 1 (ASTM A485) | M-50 |
| 52100 GRADE 2 (ASTM A485) | 440C |
| 52100 (ASTM A295) | |

PRECIPITATION HARDENING

| | |
|---------|---------|
| 17-4 PH | 15-5 PH |
|---------|---------|



10-144" RINGS

DISCS UP TO 54"

50-8,000 LBS

HEAT TREATMENT

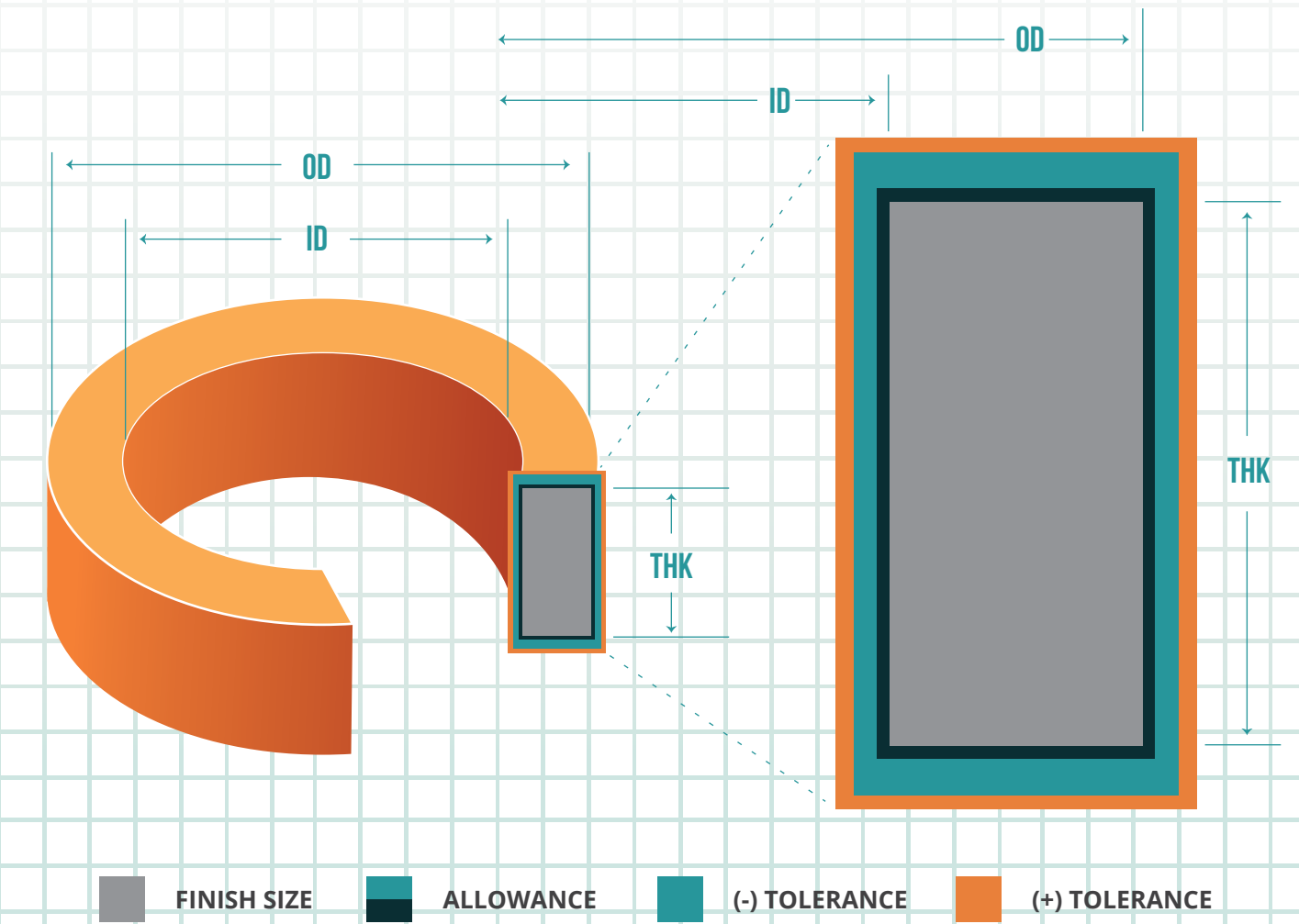
MACHINING

DESTRUCTIVE & NONDESTRUCTIVE TESTING

FORGED SIZES

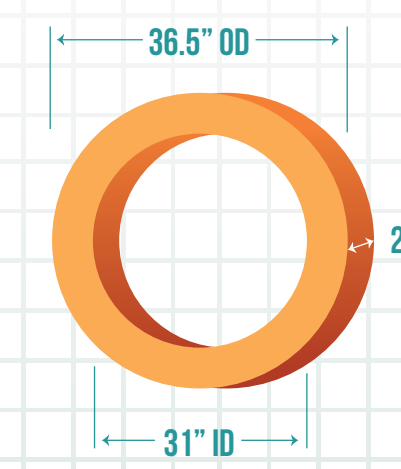
TOLERANCES & ALLOWANCES

When you provide us your finish sizes, we add the appropriate allowance to your OD, ID & THK to guarantee clean up to your finish sizes.

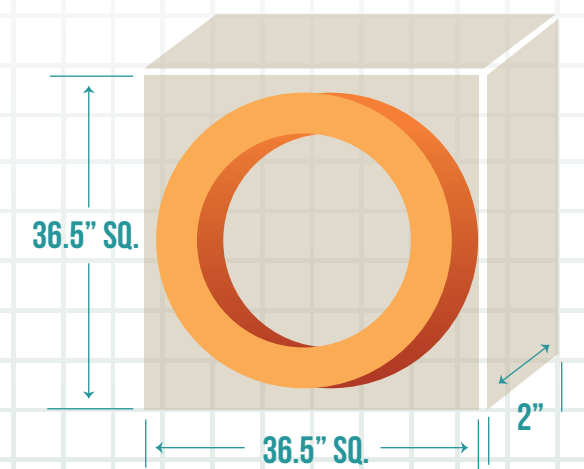


FORGINGS VS PLATE

FORGING FROM RING ROLLING PROCESS



FABRICATED RING FROM PLATE



MAKE YOUR OWN COMPARISON

Required to make a ring

PLATE [] WIDTH X [] WIDTH X [] THICKNESS X .283 WT OF STEEL = [] LBS

RING ([] OD X [] OD X .2225) - ([] ID X [] ID X .2225) X [] THICKNESS = [] LBS

USE OUR ONLINE TOOL
www.McInnesRolledRings.com/compare

RING ROLLING SAVINGS [] LBS