

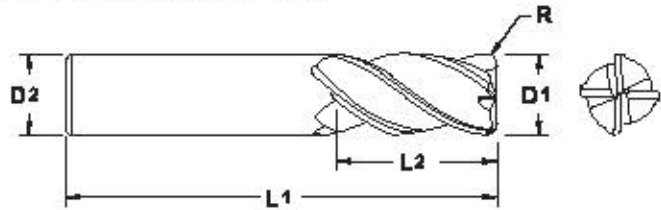
4
Flute

**TuffCut® XR
Series 177 / 177W**



Designed for EXTREME Productivity. Unique flute geometry reduces harmonics at increased feeds and speeds.

New-Standard Offering with Weldon Shank Flats.



- Variable helix.

| ALtima [®] | | ALtima [®] Weldon Flat | | Diameter | | | Shank | | OAL | | Flute Length | | Corner Radius | |
|---------------------|-------|------------------------------------|-----|----------|-----|---------|---------|-----|-------|----|--------------|------|---------------|-------|
| Tool No. | EDP | Tool No. | EDP | D1 | | | D2 (h6) | | L1 | | L2 | | R | |
| | | | | Inch | mm | Decimal | Inch | mm | Inch | mm | Inch | mm | Inch | mm |
| 1770900A | 17680 | | | | 1.5 | .0591 | | 3.0 | | 38 | | 3.0 | | |
| 17706250A | 17692 | | | 1/16 | | .0625 | 1/8 | | 1-1/2 | | 1/8 | | | |
| 17707810A | 17694 | | | 5/64 | | .0781 | 1/8 | | 1-1/2 | | 5/32 | | | |
| 17707870A | 17682 | | | | 2.0 | .0787 | | 3.0 | | 38 | | 4.0 | | |
| 17709370A | 17696 | | | 3/32 | | .0937 | 1/8 | | 1-1/2 | | 3/16 | | | |
| 17709840A | 17684 | | | | 2.5 | .0984 | | 3.0 | | 38 | | 5.0 | | |
| 17711800A | 17928 | | | | 3.0 | .1181 | | 6.0 | | 57 | | 8.0 | | |
| 17711801A | 17783 | | | | 3.0 | .1181 | | 6.0 | | 57 | | 8.0 | | 0.50 |
| 17711803A | 17686 | | | | 3.0 | .1181 | | 3.0 | | 38 | | 6.0 | | |
| 17711808A | 17929 | | | | 3.0 | .1181 | | 6.0 | | 57 | | 8.0 | | 0.25 |
| 17712500A | 17700 | | | 1/8 | | .1250 | 1/8 | | 1-1/2 | | 1/8 | | | |
| 17712502A | 17729 | | | 1/8 | | .1250 | 1/8 | | 1-1/2 | | 1/8 | | | 0.015 |
| 17712510A | 17701 | | | 1/8 | | .1250 | 1/8 | | 1-1/2 | | 3/8 | | | |
| 17712512A | 17730 | | | 1/8 | | .1250 | 1/8 | | 1-1/2 | | 3/8 | | | 0.015 |
| 17713700A | 17688 | | | | 3.5 | .1378 | | 6.0 | | 57 | | 7.0 | | |
| 17715600A | 17702 | | | 5/32 | | .1562 | 3/16 | | 2 | | 3/16 | | | |
| 17715602A | 17731 | | | 5/32 | | .1562 | 3/16 | | 2 | | 3/16 | | | 0.015 |
| 17715610A | 17703 | | | 5/32 | | .1562 | 3/16 | | 2 | | 7/16 | | | |
| 17715612A | 17732 | | | 5/32 | | .1562 | 3/16 | | 2 | | 7/16 | | | 0.015 |
| 17715700A | 17930 | | | | 4.0 | .1575 | | 6.0 | | 57 | | 11.0 | | |
| 17715701A | 17784 | | | | 4.0 | .1575 | | 6.0 | | 57 | | 11.0 | | 0.50 |
| 17715708A | 17931 | | | | 4.0 | .1575 | | 6.0 | | 57 | | 11.0 | | 0.25 |
| 17717700A | 17690 | | | | 4.5 | .1772 | | 6.0 | | 57 | | 9.0 | | |
| 17718700A | 17704 | | | 3/16 | | .1875 | 3/16 | | 2 | | 3/16 | | | |



| Inch | |
|-------------|--------------|
| D1 | Tolerance |
| 1/16 - 1/4 | +0.00/-0.002 |
| > 1/4 - 1.0 | +0.00/-0.003 |

| Metric (mm) | |
|----------------|-----------------|
| D1 | Tolerance (h10) |
| 1.50 - 3.00 | +0.00/-0.040 |
| >3.00 - 6.00 | +0.00/-0.048 |
| >6.00 - 10.00 | +0.00/-0.058 |
| >10.00 - 18.00 | +0.00/-0.070 |
| >18.00 - 25.00 | +0.00/-0.084 |

| Inch | |
|---------------|----------------|
| D2 | Tolerance (h6) |
| .1182 - .2362 | +0/-0.00031 |
| .2363 - .3937 | +0/-0.00035 |
| .3938 - .7087 | +0/-0.00043 |
| .7088 - 1.000 | +0/-0.00051 |

| Metric (mm) | |
|--------------|----------------|
| D2 | Tolerance (h6) |
| 3.0 | +0/-0.006 |
| 3.01 - 6.0 | +0/-0.008 |
| 6.01 - 10.0 | +0/-0.009 |
| 10.01 - 18.0 | +0/-0.011 |
| 18.01 - 25.0 | +0/-0.013 |

| Inch | |
|---------|----------------|
| R | Tolerance |
| 1/8 - 1 | +0.000/-0.0016 |

| Metric (mm) | |
|-------------|------------|
| R | Tolerance |
| 3.0 - 25.0 | +0.0/-0.04 |