

## SERIES 47Z\*RA

### SOLID CARBIDE DOUBLE GROOVE MILLING TIP FOR TUBE SHEETS

**Application:**  
Heat Exchanger Tube Sheet  
Double Grooves

**Diameter:**  
.437" & .625"

**Maximum Depth of Cut:**  
.036"



#### Features & Benefits:

- Form is contained on a short carbide tip that can be changed on the machine in seconds
- Tip repeats within +/- .0005"
- Deep Teeth so operator can offset machine on long runs - obtaining more tool life
- Economical Steel or Rigid Carbide Chipsurfer shank options
- Designed so that no deburr operation is needed

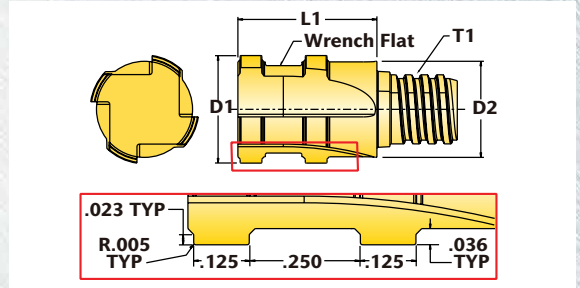
**UPDATED**

**PRODUCT  
ANNOUNCEMENT  
\*2015\***



# CHIP SURFER™ Series 47Z\*RA

Double Groove Tip for Heat Exchanger Tube Sheets



GRADES	P	M	K	N <sub>(K)</sub>	S <sub>(M)</sub>	H <sub>(PK)</sub>
IN2005	+	+	+		+	

+ Good 0 Bad

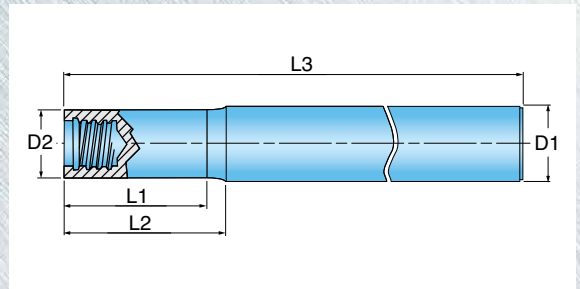


Cutter Number	D1 Nominal Diameter	D2 Neck Diameter	T1 Adaption	L1 Extension Length	Number of Flutes
<b>NEW!</b> 47Z-4380T6RA01 IN2005	0.437	0.365	T06	0.80	4
47Z-6280TRRA01 IN2005	0.625	0.550	T10	0.80	4

# CHIP SURFER™ Necked Down Straight Shank

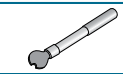
THREAD CONNECTION  
T06 & T10

SHANK MATERIAL  
CARBIDE & STEEL



T1 Thread Size	Part Number	L1 Projection Length	L2 Extension Length	L3 Overall Length	D1 Shank Diameter	D2 Mating Diameter	Material
T06	S037T06SA-06	.50	.60	3.00	.375 CYL	0.364	Steel
T06	S037T06CA-12	1.18	1.25	4.00	.375 CYL	0.364	Carbide
T10	S062T10SA-06	.68	.78	4.00	.625 CYL	0.600	Steel
T10	S062T10CA-14	1.40	1.50	4.00	.625 CYL	0.550	Carbide

## HARDWARE





Wrench

Optional Torque Wrench

T06	WS-0029	DT-90-08
T10	WS-0044	DT-250-13



Workpiece Material	Slot	
	Cutting Speed	Feed rate per tooth
		
	Vc (ft)	Fz (in)
<b>P</b> Steel	500-700	.003-.005
<b>P</b> Tool Steel	450-650	.003-.005
<b>M</b> Stainless Steel	350-600	.003-.005
<b>K</b> Gray Cast Iron	400-800	.003-.005
<b>S</b> Super Alloys	100-250	.002-.004
<b>N</b> Aluminum	1000-2500	.004-.008
Copper	250-350	.004-.006