INDUSTRY 4.0
PRODUCT ANNOUNCEMENT
•UPDATE•
2026

CHIPSURFER™

MILLING PRODUCTS

Tip Series (# of flutes):
16T Square Slot (3)
16R Full Radius (3)
17T Square Slot (4)
17R Full Radius (4)
18T Square Slot (6)
18R Full Radius (6)

Diameter Range:
.500"-1.000"
7.7-27.7mm

Width Range:
.062"-.375"
0.76-10.0mm

Adaptions: NEW
T04, T05, T06, T08 & T10

Materials:
Steel, stainless steel, iron, aluminum, Hi-temp alloys & titanium

SERIES 16_





SERIES 17_





SERIES 18_





An Expansive Chip Surfer T-Slot Line

ChipSurfer is a modular tip and shank system that resembles solid carbide but is designed to better ensure process quality, minimize set-up time and enhance productivity. The same shank can accommodate a diverse range of 90°, ball nose, chamfer, corner round, hi-feed, backdraft, circle segment, engraving, threading, plunging, dovetail and T-slot milling tip styles; not to mention drill, spot, countersink and counterbore tips! That said, Ingersoll is pleased to feature a diverse and expansive T-slot line for cutting many materials on a myriad of machines for various applications..

Features & Benefits:

- Tips repeat within +/-.0005" and can be indexed on the machine in seconds; ideal for high production environments
- Multi-Purpose geometries for steel/iron & Keen-Edge geometries for soft/gummy materials
- Full-Effective slitters to maximize narrow width productivity; Stagger-Tooth slotters for efficient machining of wide slots
- 3 & 4 flute options ideal for internal interpolation of O-Ring grooves; 6 flute for utmost straight line milling performance
- Steel, heavy metal and carbide shank choices with different coolant delivery styles
- Solid ER, 40 taper, HSK and C-Adapter integral shanks offerings
- Feature variations can be quoted

Member IMC Group
Ingersoll Cutting Tools

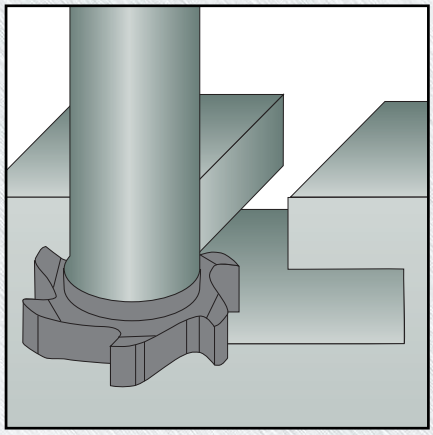
CHIPSURFER™ PRODUCT SERIES FEATURES

Product	Style	Features	Page
16T_K 	• Multi-Purpose T-Slitter • 3 Flute • Full Effective • Metric	• Ø15.7-17.7 mm range • 1.50-3.17 mm slot width range • Multi-purpose geometry for all materials • Positive radial and neutral axial rake geometry • Ideal for O-Ring Grooves in small holes	4
16T_P 	• T-Slitter with Keen Edge • 3 Flute • Full Effective • Metric	• Ø15.7 mm • 1.50-3.00 mm slot width range • Keen edge geometry for soft & gummy materials • Positive radial and neutral axial rake geometry • Ideal for O-Ring Grooves in small holes	5
16R 	• Full Radius T-Slitter • 3 Flute • Full Effective • Metric	• Ø15.7-17.7 mm • 2.2-3.00 mm slot width range • Multi-purpose geometry for all materials • Positive radial and neutral axial rake geometry • Ideal for O-Ring grooves in small holes	5
17T_K 	• Multi-Purpose T-Slotter • 4 Flute • Stagger Tooth • Metric	• Ø21.7 mm • 0.76-5.25 mm slot width range • Multi-purpose geometry for all materials • Positive radial and positive axial rake geometry • Designed for general slotting and grooving	7
17T_P 	• T-Slotter w/ Keen Edge • 4 Flute • Stagger Tooth • Metric	• Ø21.7 mm • 1.00-4.00 mm slot width range • Keen edge geometry for soft & gummy materials • Positive radial and positive axial rake geometry • Designed for general slotting and grooving	8
17R 	• Full Radius T-Slitter • 4 Flute • Full Effective • Metric	• Ø21.7 mm • 4.0-6.0 mm slot width range • Multi-purpose geometry for all materials • Positive radial and neutral axial rake geometry • Designed for general slotting and grooving	8
17T 	• Keen Edge T-Slitter • 4 Flute • Full Effective • Metric	• Ø7.7 mm • 0.70-2.00 mm slot width range • Multi-purpose geometry for all materials • Positive radial and neutral axial rake geometry • Designed for general slotting and grooving	9
18T 	• Multi-Purpose T-Slotter • 6 Flute • Stagger Tooth • Inch	• Ø.500-1.000" • .056-.375" slot width range • Multi-purpose geometry for all materials • Positive axial & positive radial rake geometry • Utmost productivity with 6 flute feed rates!	10
18T 	• Multi-Purpose T-Slotter • 6 Flute • Stagger Tooth • Metric	• Ø10.5-27.7 mm • 2.0-10.0 mm slot width range • Multi-purpose geometry for all materials • Positive axial & positive radial rake geometry • Utmost productivity with 6 flute feed rates!	11
18R 	• Full Radius T-Slitter • 6 Flute • Full Effective • Inch	• Ø.500"-.900" • .062"-.187" slot width range • Multi-purpose geometry for all materials • Positive radial and neutral axial rake geometry • Utmost productivity with 6 flute feed rates!	12

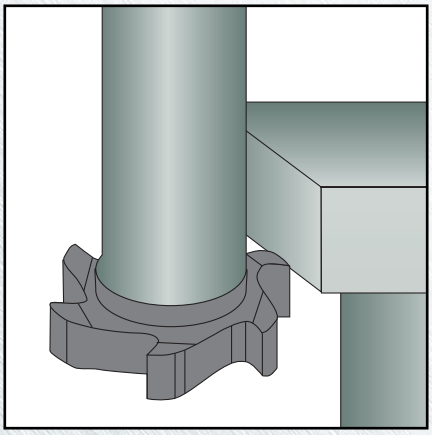
CHIPSURFER™ PRODUCT SERIES FEATURES

Product	Style	Features	Page
18R 	• Full Radius T-Slotter • 6 Flute • Stagger Tooth • Inch	• Ø.910" • .250"-.375" Slot Width • Multi-purpose geometry for all materials • Positive radial and positive axial rake geometry • Utmost productivity with 6 flute feed rates!	**13**
18R 	• Full Radius T-Slotter • 6 Flute • Stagger Tooth • Metric	• Ø27.7 mm • 7.0 mm width • Multi-purpose geometry for all materials • Positive radial and positive axial rake geometry • Utmost productivity with 6 flute feed rates!	**13**

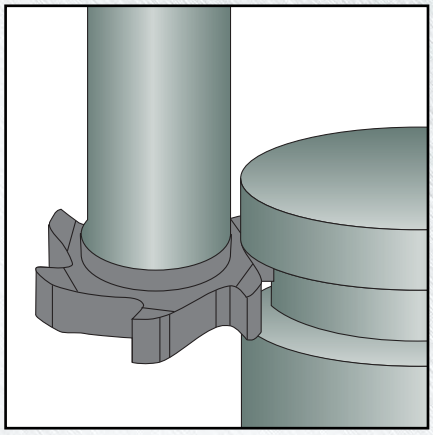
CHIPSURFER™ TYPICAL APPLICATIONS



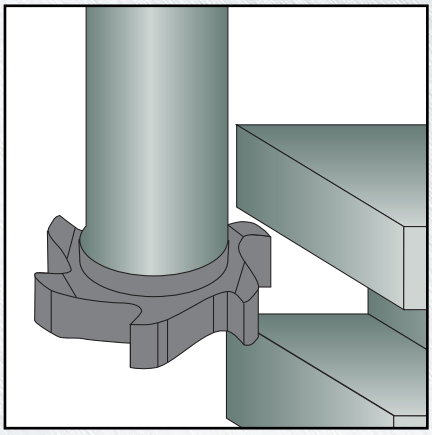
T Slot



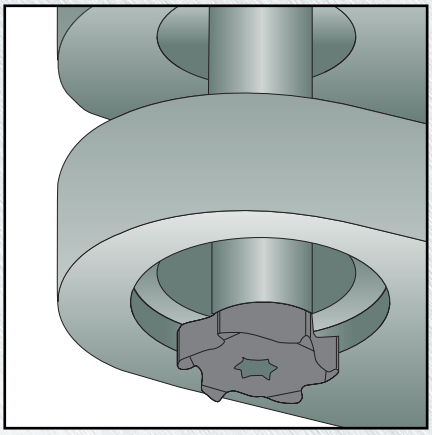
Bottom Deburring



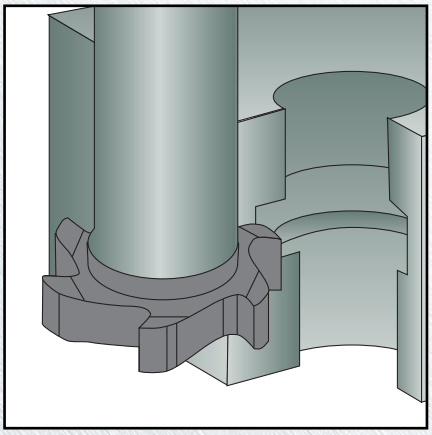
Circular Groove



Straight Groove



Bottom Circular Groove



Internal Circular Groove

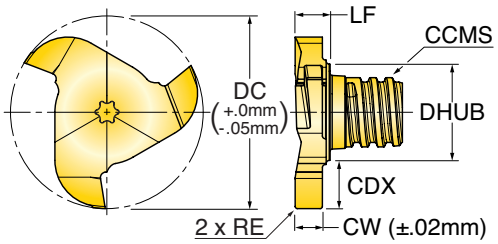
CHIPSURFER™ SERIES 16T_K - METRIC (3-FLUTE)

MULTI-PURPOSE T-SLITTER (FULL EFFECTIVE)

Slotting

T-Slotting





Part Number	DC Cutting Diameter	RE/CHW Corner Radius/ Chamfer Width	CW Cutting Width	CDX Cutting Depth Max.	LF Functional Length	ZEFF Effective Flutes	CCMS Connection Code	DHUB Hub Diameter	Grade IN2005
16T15715T6RK01	15.70 mm	0.100 R	1.50 mm	2.80 mm	1.65 mm	3	Chip Surfer T06	10.00 mm	•
16T15715T6RK02	15.70 mm	0.200 R	1.57 mm	2.80 mm	1.72 mm	3	Chip Surfer T06	10.00 mm	•
16T15720T6RK02	15.70 mm	0.200 R	2.00 mm	2.80 mm	2.14 mm	3	Chip Surfer T06	10.00 mm	•
16T15724T6RK02	15.70 mm	0.200 R	2.39 mm	2.80 mm	2.53 mm	3	Chip Surfer T06	10.00 mm	•
16T15725T6RK02	15.70 mm	0.200 R	2.50 mm	2.80 mm	2.75 mm	3	Chip Surfer T06	10.00 mm	•
16T15730T6RK02	15.70 mm	0.200 R	3.00 mm	2.80 mm	3.20 mm	3	Chip Surfer T06	10.00 mm	•
16T15731T6RK02	15.70 mm	0.200 R	3.17 mm	2.80 mm	3.31 mm	3	Chip Surfer T06	10.00 mm	•
16T17712T6RK00	17.70 mm	0.050 R	1.20 mm	3.80 mm	1.39 mm	3	Chip Surfer T06	10.00 mm	•
16T17714T6RK00	17.70 mm	0.050 R	1.40 mm	3.80 mm	1.55 mm	3	Chip Surfer T06	10.00 mm	•
16T17715T6RK01	17.70 mm	0.100 R	1.50 mm	3.80 mm	2.36 mm	3	Chip Surfer T06	10.00 mm	•
16T17715T6RK02	17.70 mm	0.200 R	1.57 mm	3.80 mm	2.58 mm	3	Chip Surfer T06	10.00 mm	•
16T17717T6RK00	17.70 mm	0.050 R	1.70 mm	3.80 mm	1.85 mm	3	Chip Surfer T06	10.00 mm	•
16T17720T6RK02	17.70 mm	0.200 R	2.00 mm	3.80 mm	2.79 mm	3	Chip Surfer T06	10.00 mm	•
16T17723T6RK02	17.70 mm	0.200 R	2.39 mm	3.80 mm	2.53 mm	3	Chip Surfer T06	10.00 mm	•
16T17725T6RK02	17.70 mm	0.200 R	2.50 mm	3.80 mm	3.21 mm	3	Chip Surfer T06	10.00 mm	•
16T17730T6RK02	17.70 mm	0.200 R	3.00 mm	3.80 mm	3.15 mm	3	Chip Surfer T06	10.00 mm	•
16T17731T6RK02	17.70 mm	0.200 R	3.17 mm	3.80 mm	3.32 mm	3	Chip Surfer T06	10.00 mm	•

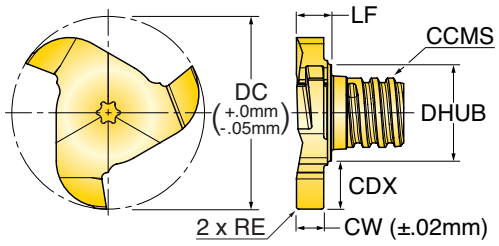
Ensure tip is seated firmly on shank (no gap). No lubricant on adaption. Wrenches sold seperately.
Min. hole dia. to be 0.3mm larger than DC if grooving in a hole.

CHIPSURFER™ SERIES 16T_P - METRIC (3-FLUTE)

T-SLITTER W/ KEEN EDGE (FULL EFFECTIVE)

Slotting T-Slotting





Part Number	DC Cutting Diameter	RE/CHW Corner Radius/ Chamfer Width	CW Cutting Width	CDX Cutting Depth Max.	LF Functional Length	ZEFF Effective Flutes	CCMS Connection Code	DHUB Hub Diameter	Grade IN2005
16T15715T6RP01	15.70 mm	0.100 R	1.50 mm	2.80 mm	1.65 mm	3	Chip Surfer T06	10.00 mm	•
16T15730T6RP02	15.70 mm	0.200 R	3.00 mm	2.80 mm	3.14 mm	3	Chip Surfer T06	10.00 mm	•

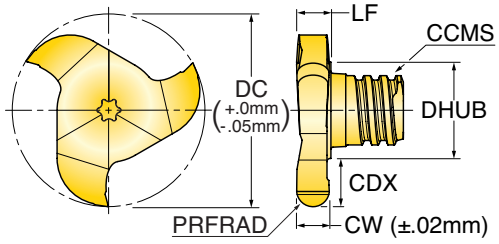
Ensure tip is seated firmly on shank (no gap). No lubricant on adaption. Wrenches sold seperately.
Min. hole dia. to be 0.3mm larger than DC if grooving in a hole.

CHIPSURFER™ SERIES 16R - METRIC (3-FLUTE)

FULL RADIUS T-SLITTER (FULL EFFECTIVE)

Slotting T-Slotting

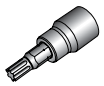
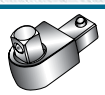




Part Number	DC Cutting Diameter	RE Corner Radius	CW Cutting Width	CDX Cutting Depth Max.	LF Functional Length	ZEFF Effective Flutes	CCMS Connection Code	DHUB Hub Diameter	Grade IN2005
16R15722T6RP11	15.70 mm	1.100 R	2.20 mm	2.80 mm	2.35 mm	3	Chip Surfer T06	10.00 mm	•
16R17712T6RP06	17.70 mm	0.600 R	1.20 mm	3.80 mm	3.19 mm	3	Chip Surfer T06	10.00 mm	•
16R17720T6RN10	17.70 mm	1.000 R	2.00 mm	3.80 mm	2.14 mm	3	Chip Surfer T06	10.00 mm	•
16R17722T6RP11	17.70 mm	1.100 R	2.20 mm	3.80 mm	2.34 mm	3	Chip Surfer T06	10.00 mm	•
16R17730T6RP15	17.70 mm	1.500 R	3.00 mm	3.80 mm	3.12 mm	3	Chip Surfer T06	10.00 mm	•

Ensure tip is seated firmly on shank (no gap). No lubricant on adaption. Wrenches sold seperately.
Min. hole dia. to be 0.3mm larger than DC if grooving in a hole.

CHIPSURFER™ HARDWARE - SERIES 16

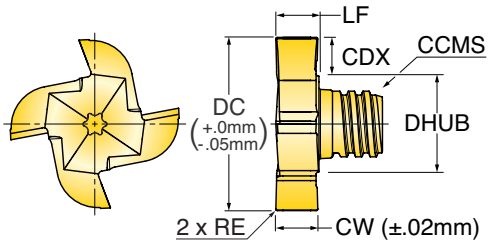
Part Number	CCMS Connection Code	Torque Tightening (in/lbs)	 **OPTIONAL**	 **OPTIONAL**	 **OPTIONAL**	 **OPTIONAL**
			L-Key	Adjustable Torque Wrench Handle	Torx Bit Socket	90° Socket Adapter
16T15715T6RK01	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
16T15715T6RK02	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
16T15720T6RK02	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
16T15724T6RK02	T06	90	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
16T15725T6RK02	T06	90	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
16T15730T6RK02	T06	90	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
16T15731T6RK02	T06	90	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
16T17712T6RK00	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
16T17714T6RK00	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
16T17715T6RK01	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
16T17715T6RK02	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
16T17717T6RK00	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
16T17720T6RK02	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
16T17723T6RK02	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
16T17725T6RK02	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
16T17730T6RK02	T06	90	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
16T17731T6RK02	T06	90	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
16T15715T6RP01	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
16T15730T6RP02	T06	90	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
16R15722T6RP11	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
16R17712T6RP06	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
16R17720T6RN10	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
16R17722T6RP11	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
16R17730T6RP15	T06	90	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12

CHIPSURFER™ SERIES 17T_K - METRIC (4-FLUTE)

MULTI-PURPOSE T-SLOT (STAGGER TOOTH)

Slotting T-Slotting





Part Number	DC Cutting Diameter	RE/CHW Corner Radius/ Chamfer Width	CW Cutting Width	CDX Cutting Depth Max.	LF Functional Length	ZEFF Effective Flutes	CCMS Connection Code	DHUB Hub Diameter	Grade IN2005
17T21707T8RK00	21.70 mm	Sharp	0.76 mm	1.50 mm	1.01 mm	4	Chip Surfer T08	12.70 mm	•
17T21708T8RK00	21.70 mm	Sharp	0.86 mm	1.70 mm	1.01 mm	4	Chip Surfer T08	12.70 mm	•
17T21709T8RK00	21.70 mm	Sharp	0.96 mm	1.90 mm	1.10 mm	4	Chip Surfer T08	12.70 mm	•
17T21710T8RK00	21.70 mm	0.050 R	1.00 mm	2.00 mm	1.15 mm	4	Chip Surfer T08	12.70 mm	•
17T21712T8RK00	21.70 mm	0.050 R	1.20 mm	4.50 mm	1.35 mm	4	Chip Surfer T08	12.70 mm	•
17T21714T8RK00	21.70 mm	0.050 R	1.40 mm	4.50 mm	1.51 mm	4	Chip Surfer T08	12.70 mm	•
17T21715T8RK00	21.70 mm	Sharp	1.57 mm	4.50 mm	1.72 mm	4	Chip Surfer T08	12.70 mm	•
17T21717T8RK01	21.70 mm	0.100 R	1.70 mm	4.50 mm	1.85 mm	4	Chip Surfer T08	12.70 mm	•
17T21719T8RK02	21.70 mm	0.200 R	1.95 mm	4.50 mm	2.10 mm	4	Chip Surfer T08	12.70 mm	•
17T21720T8RK02	21.70 mm	0.200 R	2.00 mm	4.50 mm	2.15 mm	4	Chip Surfer T08	12.70 mm	•
17T21722T8RK02	21.70 mm	0.200 R	2.25 mm	4.50 mm	2.40 mm	4	Chip Surfer T08	12.70 mm	•
17T21723T8RK02	21.70 mm	0.200 R	2.39 mm	4.50 mm	2.54 mm	4	Chip Surfer T08	12.70 mm	•
17T21725T8RK02	21.70 mm	0.200 R	2.50 mm	4.50 mm	2.65 mm	4	Chip Surfer T08	12.70 mm	•
17T21727T8RK02	21.70 mm	0.200 R	2.75 mm	4.50 mm	2.91 mm	4	Chip Surfer T08	12.70 mm	•
17T21730T8RK02	21.70 mm	0.200 R	3.00 mm	4.50 mm	3.15 mm	4	Chip Surfer T08	12.70 mm	•
17T21731T8RK02	21.70 mm	0.200 R	3.17 mm	4.50 mm	3.32 mm	4	Chip Surfer T08	12.70 mm	•
17T21732T8RK02	21.70 mm	0.200 R	3.25 mm	4.50 mm	3.40 mm	4	Chip Surfer T08	12.70 mm	•
17T21740T8RK02	21.70 mm	0.200 R	4.00 mm	4.50 mm	4.15 mm	4	Chip Surfer T08	12.70 mm	•
17T21742T8RK02	21.70 mm	0.200 R	4.25 mm	4.50 mm	4.40 mm	4	Chip Surfer T08	12.70 mm	•
17T21747T8RK02	21.70 mm	0.200 R	4.75 mm	4.50 mm	4.90 mm	4	Chip Surfer T08	12.70 mm	•
17T21752T8RK02	21.70 mm	0.200 R	5.25 mm	4.50 mm	5.40 mm	4	Chip Surfer T08	12.70 mm	•

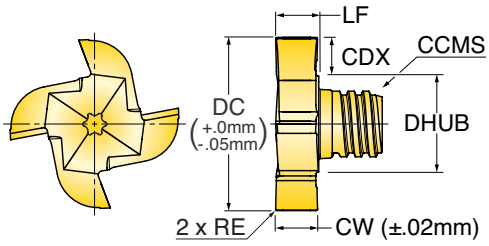
Ensure tip is seated firmly on shank (no gap). No lubricant on adaption. Wrenches sold seperately.
Min. hole dia. to be 0.3mm larger than DC if grooving in a hole.

CHIPSURFER™ SERIES 17T_P - METRIC (4-FLUTE)

T-SLOT W/ KEEN EDGE (STAGGER TOOTH)

Slotting T-Slotting





Part Number	DC Cutting Diameter	RE/CHW Corner Radius/ Chamfer Width	CW Cutting Width	CDX Cutting Depth Max.	LF Functional Length	ZEFF Effective Flutes	CCMS Connection Code	DHUB Hub Diameter	Grade IN2005
17T21710T8RP00	21.70 mm	0.050 R	1.00 mm	2.00 mm	1.15 mm	4	Chip Surfer T08	12.70 mm	•
17T21717T8RP01	21.70 mm	0.100 R	1.70 mm	4.50 mm	1.85 mm	4	Chip Surfer T08	12.70 mm	•
17T21720T8RP02	21.70 mm	0.200 R	2.00 mm	4.50 mm	2.15 mm	4	Chip Surfer T08	12.70 mm	•
17T21725T8RP02	21.70 mm	0.200 R	2.50 mm	4.50 mm	2.64 mm	4	Chip Surfer T08	12.70 mm	•
17T21730T8RP02	21.70 mm	0.200 R	3.00 mm	4.50 mm	3.15 mm	4	Chip Surfer T08	12.70 mm	•
17T21740T8RP02	21.70 mm	0.200 R	4.00 mm	4.50 mm	4.15 mm	4	Chip Surfer T08	12.70 mm	•

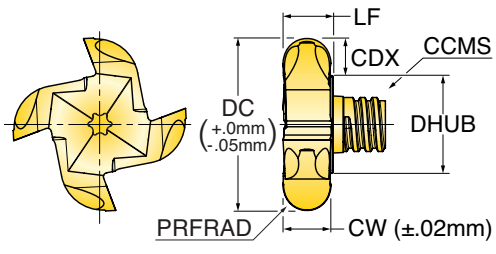
Ensure tip is seated firmly on shank (no gap). No lubricant on adaption. Wrenches sold seperately.
Min. hole dia. to be 0.3mm larger than DC if grooving in a hole.

CHIPSURFER™ SERIES 17R - METRIC (4-FLUTE)

FULL RADIUS T-SLITTER (FULL EFFECTIVE)

Slotting T-Slotting





Part Number	DC Cutting Diameter	RE Corner Radius	CW Cutting Width	CDX Cutting Depth Max.	LF Functional Length	ZEFF Effective Flutes	CCMS Connection Code	DHUB Hub Diameter	Grade IN2005
17R21740T8RP20	21.70 mm	2.000 R	4.00 mm	4.50 mm	4.15 mm	4	Chip Surfer T08	12.70 mm	•
17R21760T8RK30	21.70 mm	3.000 R	6.00 mm	4.50 mm	6.22 mm	4	Chip Surfer T08	12.70 mm	•

Ensure tip is seated firmly on shank (no gap). No lubricant on adaption. Wrenches sold seperately.
Min. hole dia. to be 0.3mm larger than DC if grooving in a hole.

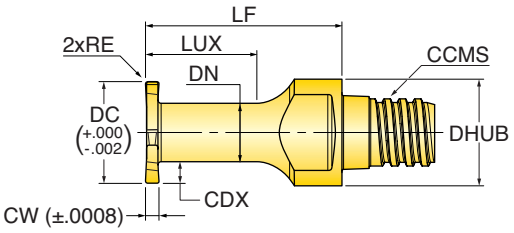
CHIPSURFER™ SERIES 17T - METRIC (4-FLUTE)

T-SLITTER WITH KEEN EDGE (FULL EFFECTIVE)

Slotting

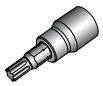
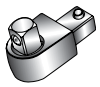
T-Slotting





Part Number	DC Cutting Diameter	RE Corner Radius	CW Cutting Width	CDX Cutting Depth Max.	LF Functional Length	DN Neck Diameter	ZEFF Effective Flutes	CCMS Connection Code	DHUB Hub Diameter	Grade IN2005
17T07707TQRK02	7.70 mm	0.200 R	0.70 mm	1.20 mm	15.00 mm	4.5 mm	4	Chip Surfer T05	8.00 mm	•
17T07708TQRK02	7.70 mm	0.200 R	0.80 mm	1.20 mm	15.00 mm	4.5 mm	4	Chip Surfer T05	8.00 mm	•
17T07709TQRK02	7.70 mm	0.200 R	0.90 mm	1.20 mm	15.00 mm	4.5 mm	4	Chip Surfer T05	8.00 mm	•
17T07710TQRK02	7.70 mm	0.200 R	1.00 mm	1.20 mm	15.00 mm	4.5 mm	4	Chip Surfer T05	8.00 mm	•
17T07715TQRK02	7.70 mm	0.200 R	1.50 mm	1.20 mm	15.00 mm	4.5 mm	4	Chip Surfer T05	8.00 mm	•
17T07720TQRK02	7.70 mm	0.200 R	2.00 mm	1.20 mm	15.00 mm	4.5 mm	4	Chip Surfer T05	8.00 mm	•

CHIPSURFER™ HARDWARE - SERIES 17

Part Number	CCMS Connection Code	Torque Tightening (in/lbs)	 **OPTIONAL**	 **OPTIONAL**	 **OPTIONAL**	 **OPTIONAL**
			L-Key	Adjustable Torque Wrench Handle	Torx Bit Socket	90° Socket Adapter
17T21707T8RK00	T08	130	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
17T21708T8RK00	T08	130	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
17T21709T8RK00	T08	130	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
17T21710T8RK00	T08	130	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
17T21712T8RK00	T08	130	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
17T21714T8RK00	T08	130	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
17T21715T8RK00	T08	130	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
17T21717T8RK01	T08	130	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
17T21719T8RK02	T08	130	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
17T21720T8RK02	T08	130	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
17T21722T8RK02	T08	130	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
17T21723T8RK02	T08	130	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
17T21725T8RK02	T08	130	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
17T21727T8RK02	T08	130	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
17T21730T8RK02	T08	130	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12
17T21731T8RK02	T08	130	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12
17T21732T8RK02	T08	130	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12
17T21740T8RK02	T08	130	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12
17T21742T8RK02	T08	130	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12
17T21747T8RK02	T08	130	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12
17T21752T8RK02	T08	130	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12
17T21710T8RP00	T08	130	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
17T21717T8RP01	T08	130	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
17T21720T8RP02	T08	130	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
17T21725T8RP02	T08	130	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
17T21730T8RP02	T08	130	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12
17T21740T8RP02	T08	130	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12
17R21740T8RP20	T08	130	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12
17R21760T8RK30	T08	130	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12

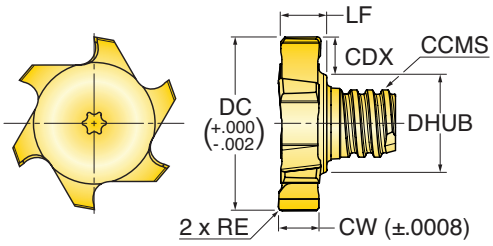
Part Number	CCMS Connection Code	Torque Tightening (in/lbs)	 Wrench	 **OPTIONAL**
			L-Key	Adjustable Torque Wrench Handle
17T07707TQRK02	T05	60	WS-0043	WRENCHTORQUE DT-60-06
17T07708TQRK02	T05	60	WS-0043	WRENCHTORQUE DT-60-06
17T07709TQRK02	T05	60	WS-0043	WRENCHTORQUE DT-60-06
17T07710TQRK02	T05	60	WS-0043	WRENCHTORQUE DT-60-06
17T07715TQRK02	T05	60	WS-0043	WRENCHTORQUE DT-60-06
17T07720TQRK02	T05	60	WS-0043	WRENCHTORQUE DT-60-06

CHIPSURFER™ SERIES 18T - INCH (6-FLUTE)

MULTI-PURPOSE T-SLOT (STAGGER TOOTH)

Slotting T-Slotting





Part Number	DC Cutting Diameter	RE/CHW Corner Radius/ Chamfer Width	CW Cutting Width	CDX Cutting Depth Max.	LF Functional Length	ZEFF Effective Flutes	CCMS Connection Code	DHUB Hub Diameter	Grade IN2005
18T-5006TQRN00	0.500	0.006 Chamfer	0.062	0.088	0.079	6	Chip Surfer T05	0.300	•
18T-5007TQRN00	0.500	0.006 Chamfer	0.078	0.088	0.095	6	Chip Surfer T05	0.300	•
18T-5012TQRN01	0.500	0.015 R	0.125	0.088	0.153	6	Chip Surfer T05	0.300	•
18T-6205T6RN02	0.625	0.015 R	0.056	0.125	0.076	6	Chip Surfer T06	0.364	•
18T-6206T6RN01	0.625	0.015 R	0.062	0.125	0.081	6	Chip Surfer T06	0.364	•
18T-6206T6RN02	0.625	0.015 R	0.068	0.125	0.093	6	Chip Surfer T06	0.364	•
18T-6208T6RN01	0.625	0.015 R	0.078	0.125	0.098	6	Chip Surfer T06	0.364	•
18T-6208T6RN02	0.625	0.015 R	0.086	0.125	0.105	6	Chip Surfer T06	0.364	•
18T-6210T6RN01	0.625	0.015 R	0.105	0.125	0.119	6	Chip Surfer T06	0.364	•
18T-6212T6RN01	0.625	0.015 R	0.125	0.125	0.146	6	Chip Surfer T06	0.364	•
18T-6216T6RN01	0.625	0.015 R	0.156	0.125	0.174	6	Chip Surfer T06	0.364	•
18T-7516T8RN01	0.750	0.015 R	0.156	0.120	0.177	6	Chip Surfer T08	0.485	•
18T-7519T8RN01	0.750	0.015 R	0.187	0.120	0.205	6	Chip Surfer T08	0.485	•
18T-7525T8RN01	0.750	0.015 R	0.250	0.120	0.268	6	Chip Surfer T08	0.485	•
18T-8718T8RN01	0.875	0.015 R	0.187	0.190	0.203	6	Chip Surfer T08	0.485	•
18T-8725T8RN01	0.875	0.015 R	0.250	0.190	0.271	6	Chip Surfer T08	0.485	•
18T-8731T8RN01	0.875	0.015 R	0.312	0.190	0.329	6	Chip Surfer T08	0.485	•
18T-1018TRRN02	1.000	0.015 R	0.187	0.180	0.202	6	Chip Surfer T10	0.630	•
18T-1025TRRN02	1.000	0.015 R	0.250	0.180	0.265	6	Chip Surfer T10	0.630	•
18T-1037TRRN02	1.000	0.015 R	0.375	0.180	0.378	6	Chip Surfer T10	0.630	•

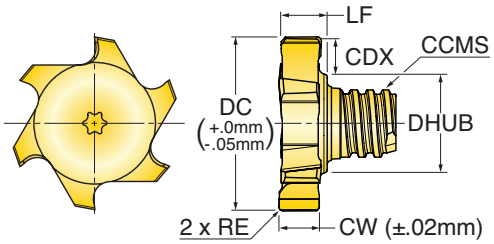
Ensure tip is seated firmly on shank (no gap). No lubricant on adaption. Wrenches sold seperately. Chip Splitters when CW>.197
Min. hole dia. to be .06" larger than DC if grooving in a hole.

CHIPSURFER™ SERIES 18T - METRIC (6-FLUTE)

MULTI-PURPOSE T-SLOT (STAGGER TOOTH)

Slotting T-Slotting





Part Number	DC Cutting Diameter	RE/CHW Corner Radius/ Chamfer Width	CW Cutting Width	CDX Cutting Depth Max.	LF Functional Length	ZEFF Effective Flutes	CCMS Connection Code	DHUB Hub Diameter	Grade IN2005
NEW 18T10520TPRN04	10.50 mm	0.400 R	2.00 mm	2.00 mm	2.30 mm	6	Chip Surfer T04	5.80 mm	•
18T13520TQRN00	13.50 mm	0.150 Chamfer	2.00 mm	2.65 mm	2.38 mm	6	Chip Surfer T05	8.20 mm	•
18T13525TQRN00	13.50 mm	0.200 Chamfer	2.50 mm	2.65 mm	2.90 mm	6	Chip Surfer T05	8.20 mm	•
18T13530TQRN04	13.50 mm	0.400 R	3.00 mm	2.65 mm	3.39 mm	6	Chip Surfer T05	8.20 mm	•
18T13540TQRN04	13.50 mm	0.400 R	4.00 mm	2.65 mm	4.41 mm	6	Chip Surfer T05	8.20 mm	•
18T16020T6RN04	16.00 mm	0.400 R	2.00 mm	3.00 mm	2.50 mm	6	Chip Surfer T06	10.00 mm	•
18T16030T6RN04	16.00 mm	0.400 R	3.00 mm	3.00 mm	3.50 mm	6	Chip Surfer T06	10.00 mm	•
18T16040T6RN04	16.00 mm	0.400 R	4.00 mm	3.00 mm	4.50 mm	6	Chip Surfer T06	10.00 mm	•
18T16520T6RN04	16.50 mm	0.400 R	2.00 mm	3.25 mm	2.40 mm	6	Chip Surfer T06	10.00 mm	•
18T16530T6RN04	16.50 mm	0.400 R	3.00 mm	3.25 mm	3.40 mm	6	Chip Surfer T06	10.00 mm	•
18T16540T6RN04	16.50 mm	0.400 R	4.00 mm	3.25 mm	4.57 mm	6	Chip Surfer T06	10.00 mm	•
18T19540T8RN04	19.50 mm	0.400 R	4.00 mm	3.25 mm	4.56 mm	6	Chip Surfer T08	11.80 mm	•
18T19550T8RN04	19.50 mm	0.400 R	5.00 mm	3.25 mm	5.34 mm	6	Chip Surfer T08	11.80 mm	•
18T19560T6RN04	19.50 mm	0.200 R	6.00 mm	4.45 mm	6.00 mm	6	Chip Surfer T06	10.00 mm	•
18T19560T8RN04	19.50 mm	0.400 R	6.00 mm	3.25 mm	6.00 mm	6	Chip Surfer T08	11.80 mm	•
18T22550T8RN04	22.50 mm	0.400 R	5.00 mm	4.75 mm	5.40 mm	6	Chip Surfer T08	11.80 mm	•
18T22560T8RN04	22.50 mm	0.400 R	6.00 mm	4.75 mm	6.00 mm	6	Chip Surfer T08	11.80 mm	•
18T22580T8RN04	22.50 mm	0.400 R	8.00 mm	4.75 mm	8.40 mm	6	Chip Surfer T08	11.80 mm	•
18T25050T8RN04	25.00 mm	0.400 R	5.00 mm	5.90 mm	5.60 mm	6	Chip Surfer T08	16.40 mm	•
18T25050TRRN04	25.00 mm	0.400 R	5.00 mm	4.30 mm	5.60 mm	6	Chip Surfer T10	16.40 mm	•
18T25060T8RN04	25.00 mm	0.400 R	6.00 mm	5.90 mm	6.54 mm	6	Chip Surfer T08	11.90 mm	•
18T25060TRRN04	25.00 mm	0.400 R	6.00 mm	4.30 mm	6.40 mm	6	Chip Surfer T10	16.40 mm	•
18T25080T8RN04	25.00 mm	0.400 R	8.00 mm	5.90 mm	8.40 mm	6	Chip Surfer T08	12.30 mm	•
18T25080TRRN04	25.00 mm	0.400 R	8.00 mm	4.30 mm	8.40 mm	6	Chip Surfer T10	16.40 mm	•
18T27725TRRN02	27.70 mm	0.200 R	2.50 mm	6.00 mm	2.85 mm	6	Chip Surfer T10	15.70 mm	•
18T27752TRRN02	27.70 mm	0.200 R	5.25 mm	6.00 mm	5.60 mm	6	Chip Surfer T10	15.70 mm	•
18T27799TRRN02	27.70 mm	0.200 R	10.00 mm	6.00 mm	10.35 mm	6	Chip Surfer T10	15.70 mm	•

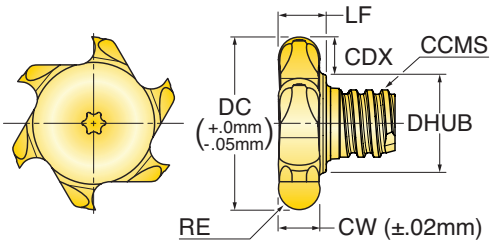
Ensure tip is seated firmly on shank (no gap). No lubricant on adaption. Wrenches sold seperately. Chip Splitters when CW>5mm
Min. hole dia. to be 1.5mm larger than DC if grooving in a hole.

CHIPSURFER™ SERIES 18R - INCH (6-FLUTE)

FULL RADIUS T-SLITTER (FULL EFFECTIVE)

Slotting | T-Slotting





Part Number	DC Cutting Diameter	RE Corner Radius	CW Cutting Width	CDX Cutting Depth Max.	LF Functional Length	ZEFF Effective Flutes	CCMS Connection Code	DHUB Hub Diameter	Grade IN2530
18R-5006TQRN03	0.500	0.031 R	0.062	0.075	0.106	6	Chip Surfer T05	0.300	•
18R-5009TQRN04	0.500	0.047 R	0.094	0.075	0.153	6	Chip Surfer T05	0.300	•
18R-5012TQRN06	0.500	0.062 R	0.125	0.075	0.185	6	Chip Surfer T05	0.300	•
18R-9006T8RN03	0.900	0.031 R	0.062	0.180	0.122	6	Chip Surfer T08	0.480	•
18R-9009T8RN04	0.900	0.047 R	0.094	0.180	0.181	6	Chip Surfer T08	0.480	•
18R-9012T8RN06	0.900	0.062 R	0.125	0.180	0.181	6	Chip Surfer T08	0.480	•
18R-9015T8RN07	0.900	0.078 R	0.156	0.180	0.224	6	Chip Surfer T08	0.480	•
18R-9018T8RN09	0.900	0.094 R	0.187	0.180	0.224	6	Chip Surfer T08	0.480	•

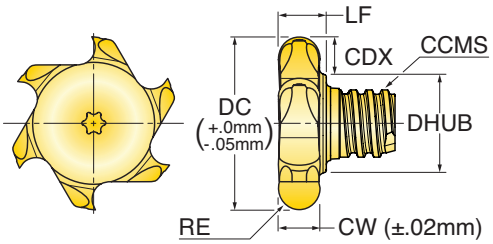
Ensure tip is seated firmly on shank (no gap). No lubricant on adaption. Wrenches sold seperately.
Min. hole dia. to be .06" larger than DC if grooving in a hole.

CHIPSURFER™ SERIES 18R - INCH (6-FLUTE)

FULL RADIUS T-SLOT (STAGGER TOOTH)

Slotting T-Slotting





Part Number	DC Cutting Diameter	RE Corner Radius	CW Cutting Width	CDX Cutting Depth Max.	LF Functional Length	ZEFF Effective Flutes	CCMS Connection Code	DHUB Hub Diameter	Grade IN2530
18R-9025T8RN12	0.910	0.125 R	0.250	0.200	0.338	6	Chip Surfer T08	0.480	•
18R-9031T8RN15	0.910	0.156 R	0.312	0.200	0.405	6	Chip Surfer T08	0.480	•
18R-9037T8RN18	0.910	0.187 R	0.375	0.200	0.405	6	Chip Surfer T08	0.480	•

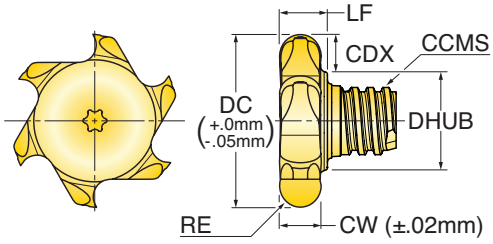
Ensure tip is seated firmly on shank (no gap). No lubricant on adaption. Wrenches sold seperately.
Min. hole dia. to be .06" larger than DC if grooving in a hole.

CHIPSURFER™ SERIES 18R - METRIC (6-FLUTE)

FULL RADIUS T-SLOT (STAGGER TOOTH)

Slotting T-Slotting

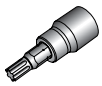
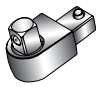




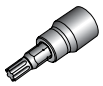
Part Number	DC Cutting Diameter	RE/CHW Corner Radius/ Chamfer Width	CW Cutting Width	CDX Cutting Depth Max.	LF Functional Length	ZEFF Effective Flutes	CCMS Connection Code	DHUB Hub Diameter	Grade IN2005
18R27770TRRP35	27.70 mm	3.500 R	7.00 mm	5.70 mm	8.60 mm	6	Chip Surfer T10	15.70 mm	•

Ensure tip is seated firmly on shank (no gap). No lubricant on adaption. Wrenches sold seperately.
Min. hole dia. to be .06" larger than DC if grooving in a hole.

CHIPSURFER™ HARDWARE - SERIES 18

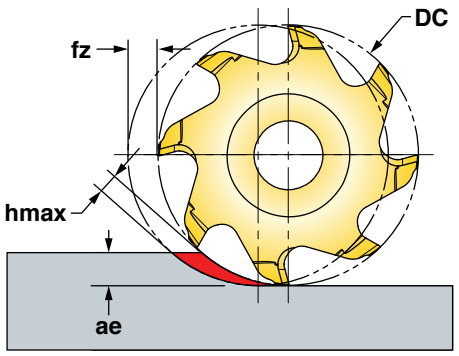
Part Number	CCMS Connection Code	Torque Tightening (in/lbs)	 **OPTIONAL**	 **OPTIONAL**	 **OPTIONAL**	 **OPTIONAL**
			L-Key	Adjustable Torque Wrench Handle	Torx Bit Socket	90° Socket Adapter
18T-5006TQRN00	T05	60	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
18T-5007TQRN00	T05	60	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
18T-5012TQRN01	T05	60	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
18T-6205T6RN02	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
18T-6206T6RN01	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
18T-6206T6RN02	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
18T-6208T6RN01	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
18T-6208T6RN02	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
18T-6210T6RN01	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
18T-6212T6RN01	T06	90	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
18T-6216T6RN01	T06	90	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
18T-7516T8RN01	T08	130	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12
18T-7519T8RN01	T08	130	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12
18T-7525T8RN01	T08	130	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12
18T-8718T8RN01	T08	130	DS-T40/3L	WRENCHTORQUE5-50Nm9X12	DS-T4038SKT	DS-38SKT9X12
18T-8725T8RN01	T08	130	DS-T40/3L	WRENCHTORQUE5-50Nm9X12	DS-T4038SKT	DS-38SKT9X12
18T-8731T8RN01	T08	130	DS-T40/3L	WRENCHTORQUE5-50Nm9X12	DS-T4038SKT	DS-38SKT9X12
18T-1018TRRN02	T10	250	DS-T50L	WRENCHTORQUE5-50Nm9X12	DS-T5038SKT	DS-38SKT9X12
18T-1025TRRN02	T10	250	DS-T50L	WRENCHTORQUE5-50Nm9X12	DS-T5038SKT	DS-38SKT9X12
18T-1037TRRN02	T10	250	DS-T50L	WRENCHTORQUE5-50Nm9X12	DS-T5038SKT	DS-38SKT9X12
18T13520TQRN00	T05	60	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
18T13525TQRN00	T05	60	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
18T13530TQRN04	T05	60	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
18T13540TQRN04	T05	60	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
18T16020T6RN04	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
18T16030T6RN04	T06	90	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
18T16040T6RN04	T06	90	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
18T16520T6RN04	T06	90	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
18T16530T6RN04	T06	90	DS-T25L	WRENCHTORQUE5-50Nm9X12	DS-T2538SKT	DS-38SKT9X12
18T16540T6RN04	T06	90	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12
18T19540T8RN04	T08	130	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12
18T19550T8RN04	T08	130	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12
18T19560T6RN04	T06	90	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12
18T19560T8RN04	T08	130	DS-T30/3L	WRENCHTORQUE5-50Nm9X12	DS-T3038SKT	DS-38SKT9X12
18T22550T8RN04	T08	130	DS-T40/3L	WRENCHTORQUE5-50Nm9X12	DS-T4038SKT	DS-38SKT9X12
18T22560T8RN04	T08	130	DS-T40/3L	WRENCHTORQUE5-50Nm9X12	DS-T4038SKT	DS-38SKT9X12
18T22580T8RN04	T08	130	DS-T40/3L	WRENCHTORQUE5-50Nm9X12	DS-T4038SKT	DS-38SKT9X12
18T25050T8RN04	T08	130	DS-T50L	WRENCHTORQUE5-50Nm9X12	DS-T5038SKT	DS-38SKT9X12
18T25050TRRN04	T10	250	DS-T50L	WRENCHTORQUE5-50Nm9X12	DS-T5038SKT	DS-38SKT9X12
18T25060T8RN04	T08	130	DS-T50L	WRENCHTORQUE5-50Nm9X12	DS-T5038SKT	DS-38SKT9X12
18T25060TRRN04	T10	250	DS-T50L	WRENCHTORQUE5-50Nm9X12	DS-T5038SKT	DS-38SKT9X12

CHIPSURFER™ HARDWARE - SERIES 18 (CONTINUED)

Part Number	CCMS Connection Code	Torque Tightening (in/lbs)	 **OPTIONAL**	 **OPTIONAL**	 **OPTIONAL**	 **OPTIONAL**
			L-Key	Adjustable Torque Wrench Handle	Torx Bit Socket	90° Socket Adapter
18T25080T8RN04	T08	130	DS-T50L	WRENCHTORQUE5-50Nm9X12	DS-T5038SKT	DS-38SKT9X12
18T25080TRRN04	T10	250	DS-T50L	WRENCHTORQUE5-50Nm9X12	DS-T5038SKT	DS-38SKT9X12
18T27725TRRN02	T10	250	DS-T40/3L	WRENCHTORQUE5-50Nm9X12	DS-T4038SKT	DS-38SKT9X12
18T27752TRRN02	T10	250	DS-T40/3L	WRENCHTORQUE5-50Nm9X12	DS-T4038SKT	DS-38SKT9X12
18T27799TRRN02	T10	250	DS-T40/3L	WRENCHTORQUE5-50Nm9X12	DS-T4038SKT	DS-38SKT9X12
18R-5006TQRN03	T05	60	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
18R-5009TQRN04	T05	60	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
18R-5012TQRN06	T05	60	DS-T20/3L	WRENCHTORQUE5-50Nm9X12	DS-T2038SKT	DS-38SKT9X12
18R-9006T8RN03	T08	130	DS-T40/3L	WRENCHTORQUE5-50Nm9X12	DS-T4038SKT	DS-38SKT9X12
18R-9009T8RN04	T08	130	DS-T40/3L	WRENCHTORQUE5-50Nm9X12	DS-T4038SKT	DS-38SKT9X12
18R-9012T8RN06	T08	130	DS-T40/3L	WRENCHTORQUE5-50Nm9X12	DS-T4038SKT	DS-38SKT9X12
18R-9015T8RN07	T08	130	DS-T40/3L	WRENCHTORQUE5-50Nm9X12	DS-T4038SKT	DS-38SKT9X12
18R-9018T8RN09	T08	130	DS-T40/3L	WRENCHTORQUE5-50Nm9X12	DS-T4038SKT	DS-38SKT9X12
18R-9025T8RN12	T08	130	DS-T40/3L	WRENCHTORQUE5-50Nm9X12	DS-T4038SKT	DS-38SKT9X12
18R-9031T8RN15	T08	130	DS-T40/3L	WRENCHTORQUE5-50Nm9X12	DS-T4038SKT	DS-38SKT9X12
18R-9037T8RN18	T08	130	DS-T40/3L	WRENCHTORQUE5-50Nm9X12	DS-T4038SKT	DS-38SKT9X12
18R27770TRRP35	T10	250	DS-T40/3L	WRENCHTORQUE5-50Nm9X12	DS-T4038SKT	DS-38SKT9X12

CHIPSURFER™ OPERATING GUIDELINES: T-SLOT

Chip Thinning



* When ae is less than 25% DC, recommend use of Chip Thinning Calculator to ensure hmax is within fz range.

Materials				Full Slot		Side Cut		Coolant
ISO	Mat'l Group #VDI 3323	Type	Examples	Vc Cutting Speed SFM	fz* Feed/Tooth (inch)	Vc Cutting Speed SFM	fz* Feed/Tooth (inch)	
P	1 thru 5	Non-alloy Steel	1018, A36, 1045, A572, 1070	300-400	.001-.004	450-650	.002-.005	No
	6 thru 9	Low-alloy Steel	4140, 4340, P20, 8620, 300M	300-400		450-650		
	10, 11	High-alloy Steel	H13, A2, D2, M2, T1	250-350		400-600		
M	12 thru 13	Stainless Steel (Ferritic & Martensitic)	410, 416, 440	200-450	.001-.004	250-550	.002-.005	Yes
	14	Stainless Steel (Austenitic)	303, 304, 316, 15-5, 17-4					May not be required at high speeds
K	15 thru 16	Gray Cast Iron	CLS. 20, 30, 45	400-700	.001-.005	500-800	.002-.006	No
	17 thru 20	Nodular Cast Iron	60-40-18, 100-70-03					
N	21-30	Aluminum	7075, 6061	1000-2000	.002-.006	1000-3000	.002-.007	Yes
S	31 thru 35	High-Temp Alloys	Inconel, Hastelloy, Nimonic, Monel	65-125	.001-.004	65-150	.002-.004	Yes
	36 thru 37	Titanium Alloys	6Al-4V, 5Al-5Mo-5V-3Cr					

Note: Feed and speed recommendations are starting operating parameters. They are only guidelines from which further optimization should take place. Operating parameters are influenced by many machining variables. These variables may cause for reductions in feeds and speed or dramatic increases. Additionally, DOC and WOC may need to be revised to optimize the tools performance.

CHIPSURFER™ INDEXING CHIPSURFER TIPS

Step 1: Screw tip into shank until finger tight (Figure 1a). Note a .010" gap (Figure 1b).
Step 2: Use wrench to torque approximately 1/4 turn, creating a simultaneous fit (Figure 2).
Step 3: Use .001" shim stock to check the simultaneous fit at the intersection of the tip and the shank.
The shim should not be able to enter the intersection (Figure 3a).
If it does, tighten further with the wrench until there is no gap (Figure 3b).

Note: Torque wrenches can be purchased.

Figure 1a. Finger tight



Figure 1b. .010" gap



Figure 2. 1/4 turn



Figure 3a. Shim should NOT enter intersection



Figure 3b. Proper fit



Optional Torque Wrench

