
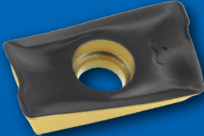



CR39 90° Shoulder Milling

W390

- Special chip breaker design is suitable for the efficient milling on high temperature alloys.
- High performance shoulder or side milling for various materials.
- High removal rates can be achieved even on low power machines.
- Winstar W390 inserts is now available with CVD grades CX37TA and CX47TA for improved tool life in dry cutting.

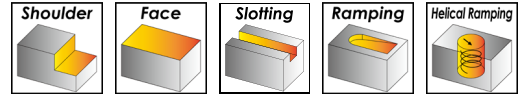
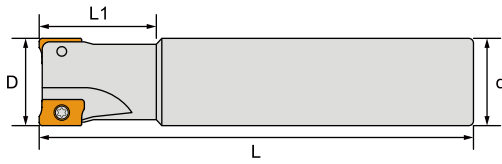


	Insert Size · R	Max. ap
	11 · 0.8R 2.0R	10mm
	17 · 0.8R	15mm
	18 · 1.2R	15mm



Shoulder Milling - CR39

Milling Tools



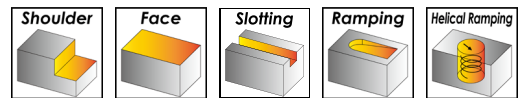
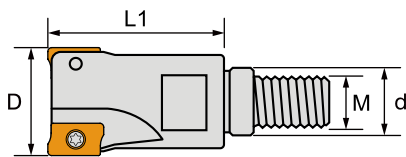
Insert Brand : Winstar, Sandvik, ...

Order No.	D	L1	L	d	T	Inserts	Screw	Wrench	Stock	
ICR39E302016150	16	30	150	16	2	W39011T3	ITS2509	ITK08	●	
ICR39E303020150	20	30	150	20	3				○	
ICR39E303025150	25	30	150	25	3				●	
ICR39E303032150	32	35	150	32	3				○	
ICR39E702025150	25	32	150	25	2	W3901704	IMS3507A	ITK15	●	
ICR39E702025200	25	32	200	25	2				●	
ICR39E702026150	26	32	150	25	2				●	
ICR39E702026200	26	32	200	25	2				●	
ICR39E703032150	32	35	150	32	3				●	
ICR39E703032200	32	35	200	32	3		●			
ICR39E703033150	33	35	150	32	3		●			
ICR39E703033200	33	35	200	32	3		●			
ICR39E802025150	25	35	150	25	2		W3901806	ITS4005	ITK15	○
ICR39E803032150	32	40	150	32	3					○

● stock ○ by inquiry

Customize available.

Modular Milling Heads



Insert Brand : Winstar, Sandvik, ...

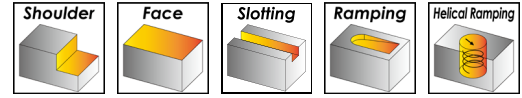
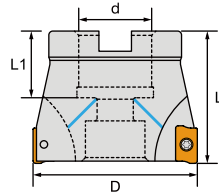
Order No.	D	L1	d	M	T	Inserts	Screw	Wrench	Stock
ICR39M302016080	16	26	8.5	M8	2	W39011T3	ITS2509	ITK08	○
ICR39M303020100	20	32	10.5	M10	3				○
ICR39M303025120	25	38	12.5	M12	3				○
ICR39M303032160	32	41	17	M16	3				○
ICR39M702025120	25	35	12.5	M12	2	W3901704	IMS3507A	ITK15	●
ICR39M702026120	26	35	12.5	M12	2				●
ICR39M703032160	32	43	17	M16	3		IMS3509A		●
ICR39M703033160	33	43	17	M16	3				●

● stock ○ by inquiry

※ For screw-in type adapter, please refer to Tooling System

Shoulder Milling - CR39

Milling Tools



Insert Brand : Winstar, Sandvik, ...

Order No.	D	L	d	T	Coolant	Inserts	Screw	Wrench	Stock
ICR39F305040161	40	40	16	5	✓	W39011T3	ITS2509	ITK08	●
ICR39F304050220	50	40	22	4					○
ICR39F306050221	50	40	22	6	✓				●
ICR39F305063220	63	40	22	5					○
ICR39F307063221	63	50	22	7	✓				●
ICR39F308080270	80	50	27	8					○
ICR39F704040161	40	40	16	4	✓	W3901704	ITS3505	ITK15	●
ICR39F705050221	50	40	22	5	✓				●
ICR39F706063221	63	40	22	6	✓				●
ICR39F707080271	80	50	27	7	✓				●
ICR39F708100321	100	50	32	8	✓				●
ICR39F709125400	125	63	40	9					●
ICR39F805050221	50	40	22	5	✓	W3901806	ITS4005	ITK15	●
ICR39F806063221	63	40	22	6	✓				●
ICR39F807080271	80	50	27	7	✓				●
ICR39F808100321	100	50	32	8	✓				●

● stock ○ by inquiry

Customize available.

Shoulder Milling - CR39

Insert Specifications

Insert	Dimensions (mm)				
	A	B	S	r	d1
W39011T308	10	6.8	3.59	0.8	2.8
W39011T320	10	6.8	3.59	2.0	2.8
W390170408	15.7	9.6	4.76	0.8	4.1
W390180612	15.4	11	6.33	1.2	4.15

Insert Geometry

Chipbreaker	Application
<p>SG</p>	Sharp geometry design for Semi-finishing cutting in carbon steel, alloy steel, stainless steel and difficult-to-cut material.
<p>MG</p>	Low cutting force for medium cutting in carbon steel, alloy steel, stainless steel, high temperature alloy and cast iron.

Insert Grade

Grade Type	Coating Color	Properties	Application	Working Material						Industry Area
				P	M	K	N	S	H	
CX33TX (PVD)		<ul style="list-style-type: none"> Wear resistance Anti-corrosion 	<ul style="list-style-type: none"> Medium to roughing General machining For carbon steel & alloy steel is 1st recommended 	●	●	●	○	●	●	<ul style="list-style-type: none"> Mold & Die Automotive Machinery Aerospace
CX33UX (PVD)		<ul style="list-style-type: none"> Wear resistance Anti-corrosion Low friction 	<ul style="list-style-type: none"> Semi-finishing to roughing General machining For exotic materials is 1st recommended 	●	●	●	●	●	●	<ul style="list-style-type: none"> Mold & Die Automotive Machinery Aerospace
CX37TA (CVD)		<ul style="list-style-type: none"> Wear resistance Impact resistance 	<ul style="list-style-type: none"> Medium to roughing For cast iron is 1st recommended 	●	○	●	○	○	○	<ul style="list-style-type: none"> Automotive Machinery
CX43TX (PVD)		<ul style="list-style-type: none"> Tough substrate Anti-corrosion 	<ul style="list-style-type: none"> Medium to roughing Interrupted machining For stainless steel is 1st recommended 	●	●	○	●	○	○	<ul style="list-style-type: none"> Electronics Medical Aerospace
CX47TA (CVD)		<ul style="list-style-type: none"> High impact resistance High toughness 	<ul style="list-style-type: none"> Roughing Interrupted machining For alloy steel & stainless steel are recommended 	●	●	○	○	○	○	<ul style="list-style-type: none"> Machinery Aerospace Energy

Shoulder Milling - CR39

Insert Designation

Insert	Order No.	Code-Chipbreaker-Grade	Working Material					
			P	M	K	N	S	H
	IW39011T308SG33TX	W39011T308-SG-CX33TX	●	●	●		○	●
	IW39011T308SG33UX	W39011T308-SG-CX33UX	●	●	●		●	●
	IW39011T308SG43TX	W39011T308-SG-CX43TX	●	●	○		●	
	IW39011T308MG33TX	W39011T308-MG-CX33TX	●	●	●		○	●
	IW39011T308MG33UX	W39011T308-MG-CX33UX	●	●	●		●	●
	IW39011T308MG43TX	W39011T308-MG-CX43TX	●	●	○		●	
	IW39011T308MG37TA	W39011T308-MG-CX37TA	●	○	●		○	○
	IW39011T308MG47TA	W39011T308-MG-CX47TA	●	●	○		○	○
	IW39011T320MG33TX	W39011T320-MG-CX33TX	●	●	●		○	●
	IW39011T320MG33UX	W39011T320-MG-CX33UX	●	●	●		●	●
	IW39011T320MG43TX	W39011T320-MG-CX43TX	●	●	○		●	
	IW39011T320MG37TA	W39011T320-MG-CX37TA	●	○	●		○	○
	IW39011T320MG47TA	W39011T320-MG-CX47TA	●	●	○		○	○
	IW390170408MG33TX	W390170408-MG-CX33TX	●	●	●		○	●
	IW390170408MG33UX	W390170408-MG-CX33UX	●	●	●		●	●
	IW390170408MG43TX	W390170408-MG-CX43TX	●	●	○		●	
	IW390170408MG37TA	W390170408-MG-CX37TA	●	○	●		○	○
	IW390170408MG47TA	W390170408-MG-CX47TA	●	●	○		○	○
	IW390180612SG33TX	W390180612-SG-CX33TX	●	●	●		○	●
	IW390180612SG33UX	W390180612-SG-CX33UX	●	●	●		●	●
	IW390180612SG43TX	W390180612-SG-CX43TX	●	●	○		●	
	IW390180612SG37TA	W390180612-SG-CX37TA	●	○	●		○	○

Shoulder Milling - CR39

Recommended Cutting Conditions

Working Material	W39011T3		
	Vc	fz	ap
Carbon Steel / Alloy Steel	120 ~ 250	0.10 ~ 0.22	0.3 ~ 7.0
Stainless Steel	100 ~ 180	0.08 ~ 0.18	0.3 ~ 4.0
Cast Iron	120 ~ 250	0.10 ~ 0.22	0.3 ~ 7.0
High Temperature Alloy	40 ~ 100	0.07 ~ 0.14	0.3 ~ 4.0
Hardened Steel	50 ~ 100	0.07 ~ 0.15	0.3 ~ 4.0

Working Material	W3901704 / W3901806		
	Vc	fz	ap
Carbon Steel / Alloy Steel	120 ~ 250	0.12 ~ 0.28	0.5 ~ 10.0
Stainless Steel	100 ~ 180	0.10 ~ 0.22	0.5 ~ 6.0
Cast Iron	120 ~ 250	0.12 ~ 0.28	0.5 ~ 10.0
High Temperature Alloy	40 ~ 100	0.10 ~ 0.18	0.5 ~ 6.0
Hardened Steel	50 ~ 100	0.10 ~ 0.20	0.5 ~ 6.0