

Tungaloy

Member IMC Group

Keeping the Customer First

Tungaloy Report No. 363-E



TURNLINE
TAC Toolholders for Super High Feed Turning

TURNFEED

ISO TOOL™

Extremely reducing the machining time!



Remarkable Productivity through the new Cutting Edge Geometry!

Super High Feed Toolholder "TurnFeed (Turning X)"

Features

Double clamping

Double clamping technology with clamping screw and an additional clamp, realizing a highly rigid turning tool.

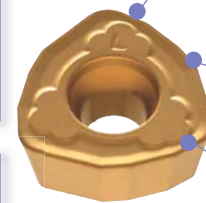


ML type chipbreaker

Letter "L" is marked on the rake face of left hand inserts.

ML chipbreaker provided with both low cutting forces and high impact resistance.

The 7mm thick insert can withstand high load at high feeds.



Unique cutting edge geometry

Disperses the cutting load across a wide area.

Produces thin chips

Thin and wide chips enhance chip control

Super High Productivity

● Comparison of cutting performance

TurnFeed

Unique cutting edge geometry

Thin and wide chips contribute to good chip control

$V_c = 150 \text{ m/min}$
 $a_p = 2 \text{ mm}$
 $f = 2.5 \text{ mm/rev}$
 Work material: Mild steel (SS400)

Conventional toolholder

$V_c = 150 \text{ m/min}$
 $a_p = 2 \text{ mm}$
 $f = 0.3 \text{ mm/rev}$
 Work material: Mild steel (SS400)

8 times improved productivity

Toolholders

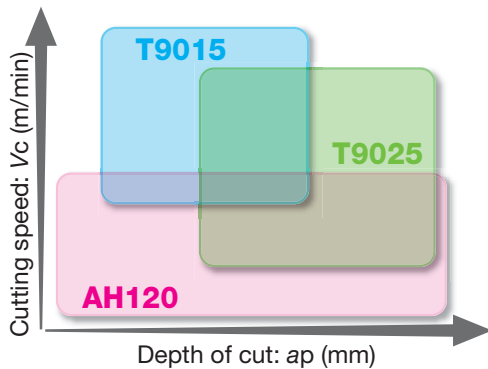
External turning and facing XWXP R/L											
Cat. No.	Stock		Dimensions (mm)				Applicable inserts	Clamp set screw	Clamping	Wrench	
	R	L	h	b	L ₁	f					
XWXPR/L2525M09	●	●	25	25	150	32	WPMT090725ZPR/L-ML	CSY-20	CSPB-5	IP-20T	
XWXPR/L3232P09	●	●	32	32	170	40					
XWXPR/L4040S09	●	●	40	40	250	50					

Inserts

	Cat. No.	Accuracy	Honing	Stocked grades			Dimensions (mm)			
				T9015	T9025	AH120	A	B	T	r _ε
				WPMT090725ZPR-ML	M	With	●	●	●	9
WPMT090725ZPL-ML	●	●	●							

Notes: There are left and right hand inserts. Care should be taken not to confuse the hand of inserts. For details, see the instruction manual on our web site.

Application areas



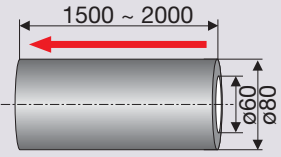
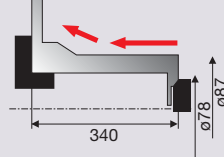
First choice

- **T9025**
 - For low to medium speed machining. Can also be used for interrupted cutting.
 - Exceptional chip and impact resistance.
- **T9015**
 - For continuous cutting at medium to high speeds.
 - Excels in both wear and impact resistance.
- **AH120** (Complementary grade for stainless and mild steels)
 - When machining stainless and mild steels, if chipping or breakage occurs change inserts to AH120.

Standard cutting conditions

Work material	Grades	Chipbreaker	Cutting speed V _c (m/min)	Depth of cut a _p (mm)	Feed f (mm/rev)
Mild and low carbon steels SS400, S25C (C25) etc. < 180 HB	T9025	ML	100 - 150 - 250	0.5 - 2.5	0.5 - 1.5 - 2.5
Carbon and alloy steels S50C, SCM440 (C50, 42CrMoS4) etc. < 300HB	T9015		100 - 150 - 250		
Stainless steels SUS304, SUS316 (X5CrNi18-9, X5CrNiMo17-12-2) etc. < 250 HB	T9025		100 - 150 - 250		
Grey and ductile cast irons FC250, FCD400 (GG25, GGG40) etc.	T9015		100 - 150 - 250		

Practical Examples

Name of workpiece		Construction equipment parts	Automotive parts
Toolholder		XWXPR3232P09	XWXPR2525M09
Insert		WPMT090725ZPR-ML (T9025)	WPMT090725ZPR-ML (T9015)
Workpiece material		Carbon steel (S45C / C45)	Carbon steel (S45C / C45)
			
Cutting Conditions	Cutting speed: Vc (m/min)	160	160
	Feed: fz (mm/rev)	2	2.5
	Depth of cut: ap (mm)	2	1.5
	Coolant	Water soluble (External supply)	Water soluble (External supply)
Result		When using competitor tool, the feed was limited to $f = 0.3 \sim 0.35$ mm/rev. By switching to "TurnFeed (Turning X)", the feed could be increased to 2 mm/rev with no chatter. This contributes to a dramatic productivity increase when roughing.	Compared to previous CNMG inserts with wiper edges, the machining cycle time could be reduced by 40%. The tool life was equal to, or improved upon competitor products despite the cycle time reduction.



Tungaloy Corporation

Tungaloy Corporation (Head office)

11-1 Yoshima-Kogyodanchi
Iwaki-city, Fukushima, 970-1144 Japan
Phone: +81-246-36-8501 Fax: +81-246-36-8542
<http://www.tungaloy.co.jp/>

Tungaloy America, Inc.

Phone: +1-630-227-3700 Fax: +1-630-227-0690
<http://www.tungaloyamerica.com/>

Tungaloy Canada

Phone: +1-519-758-5779 Fax: +1-519-758-5791
<http://www.tungaloyamerica.com/>

Tungaloy de Mexico S.A.

Phone: +52-449-929-5410 Fax: +52-449-929-5411
<http://www.tungaloyamerica.com/>

Tungaloy do Brasil Comércio de Ferramentas de Corte Ltda.

Phone: +55-19-38262757 Fax: +55-19-38262757
<http://www.tungaloy.co.jp/br/>

Tungaloy Germany GmbH

Phone: +49-2173-90420-0 Fax: +49-2173-90420-19
<http://www.tungaloy.de>

Tungaloy France S.A.S.

Phone: +33-1-6486-4300 Fax: +33-1-6907-7817
<http://www.tungaloy-eu.com/>

Tungaloy Italia S.r.l.

Phone: +39-02-252012-1 Fax: +39-02-252012-65
<http://www.tungaloy.co.jp/cz/>

Tungaloy Czech s.r.o

Phone: +420 532 123 391 Fax: +420 532 123 392
<http://www.tungaloy.co.jp/cz/>

Tungaloy Ibérica S.L.

Phone: +34 93 1131360 Fax: +34 93 1131361
<http://www.tungaloy.co.jp/es/>

LLC Tungaloy Rus

Phone: +7 4722 33 97 23 Fax: +7 4722 33 97 23
<http://www.tungaloy.co.jp/ru/>

Tungaloy Polska Sp. z o.o

Phone: +48-22-617-0890 Fax: +48-22-617-0890
<http://www.tungaloy.co.jp/pl/>

Tungaloy Cutting Tool (Shanghai) Co.,Ltd.

Phone: +86-21-3632-1880 Fax: +86-21-3621-1918
<http://www.tungaloy.co.jp/tcts/>

Tungaloy Cutting Tool (Thailand) Co.,Ltd.

Phone: +66-2-714-3130 Fax: +66-2-714-3134
<http://www.tungaloy.co.th/>

Tungaloy Singapore(Pte.),Ltd.

Phone: +65-6391-1833 Fax: +65-6299-4557
<http://www.tungaloy.co.jp/tspl/>

Tungaloy India Pvt. Ltd.

Phone: +91-22-6124-8803 Fax: +91-22-6124-8899
<http://www.tungaloy.co.jp/in/>

Tungaloy Korea Co., Ltd

Phone: +82-2-6393-8930 Fax: +82-2-6393-8952
<http://www.tungaloy.co.jp/kr/>

Tungaloy Malaysia Sdn Bhd

Phone: +603-7805-3222 Fax: +603-7804-8563
<http://www.tungaloy.co.jp/my/>



ISO 9001 certified
QC00J0056
Tungaloy Corporation

18/10/1996

ISO 14001 certified
EC97J1123
Tungaloy Group
Japan site and Asian
production site
26/11/1997

Distributed by:



ISO TOOL AI

Estridsväg 17

SE-291 65 Kristianstad

Tel: 044-245570 / Fax: 044-245540

info@isotool.se / www.isotool.se