

# HCG - HORN Catalog Guide

## INTERNAL GROOVING

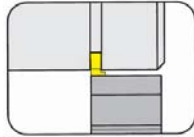
re Ø	r t e									
				3		3		3 3	3	3
.625" (15.87 mm)				•						
.709" (18 mm)				•						
.787 - 1.102" (20-28 mm)	•			•						
1.102 - 1.496" (28-38 mm)	•			•	•					
> 1.496" (38 mm)	•			•	•	•	•	•	•	
Operat pe										
r	•			•	•	•	•	•	•	
hrea				•	•	•			•	
Profiling				•	•		•	•	•	
th r e h					3	3	3			
th r e	3			3				3		
Chapter	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>J</b>	<b>K</b>

## EXTERNAL GROOVING

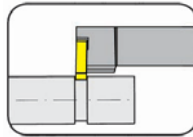
Depth r e p t	r t e									
				3		3		3 3	3	3
.157" (4 mm)	•	•	•	•	•	•	•	•	•	•
.236" (6 mm)		•	•	•	•	•	•	•	•	•
.315" (8 mm)		•		•	•	•	•	•		•
.394" (10 mm)		•		•	•	•	•			
.433" (11 mm)		•		•	•	•	•			
.551" (14 mm)		•		•	•		•			
.630" (16 mm)		•		•	•		•			
.709" (18 mm)				•	•		•			
.984" (25 mm)				•			•			
1.000" (25.4 mm)							•			
Operation Type										
Grooving	•	•	•	•	•	•	•	•	•	•
Side Turning		•	•	•	•		•	•		
Parting Off	•	•	•	•	•		•	•		•
Threading		•	•			•	•		•	
Profiling			•		•		•	•	•	•
Axial Grooving						•			•	
th r e h					3	3	3			
Width of groove mm	0.56-5.3	1.5-3.0	0.5-3.0	1.25-3.0	2.0-6.0	2.5-10.0	2.5-10.0	0.5-6.35	0.56-4.29	1.5-3.0
Chapter	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>J</b>	<b>K</b>

TOOLING SYSTEMS 315 J

Grooving and  
threading  
- external -

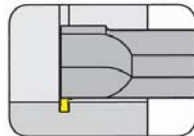


PageJ2-J5

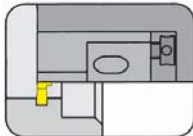


PageJ6-J7

Grooving and  
threading  
- internal-

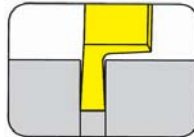


PageJ8-J9

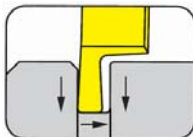


PageJ10-J11

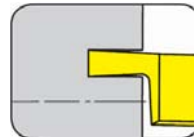
**Indexable inserts  
Type  
315**



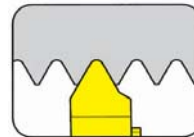
PageJ12-J13



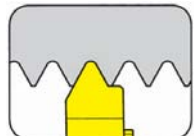
PageJ14



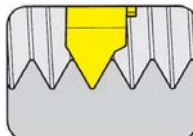
PageJ15



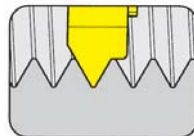
PageJ16



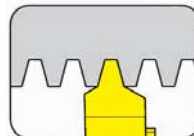
PageJ17



PageJ18



PageJ19

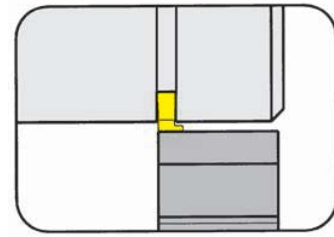


PageJ20

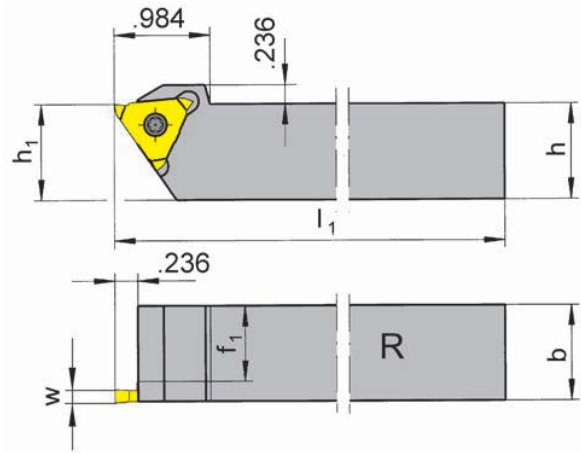
For Technical Information please see chapter Q

TOOLHOLDER Type

## U356



Depth of groove up to	.236"
Width of groove up to	.209"



for use with Indexable insert

Type 315

R = right hand version shown

L = left hand version

Part number	h	b	l <sub>1</sub>	h <sub>1</sub>	f <sub>1</sub>	Size
R/LU356.0750.05	.750	.750	5.000	.750	.545	05
R/LU356.1000.05	1.000	1.000	6.000	1.000	.795	
R/LU356.1250.05	1.250	1.250	6.693	1.250	1.045	

State R or L version

w see indexable inserts

Dimensions in inch

Further sizes upon request



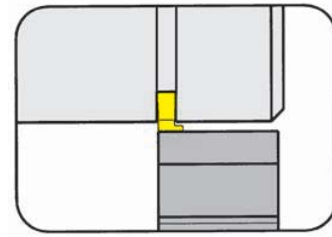
Spare parts

Toolholder	Screw	TORX PLUS® Wrench
R/LU356....	5.12T20P	T20PQ

J2

TOOLHOLDER Type

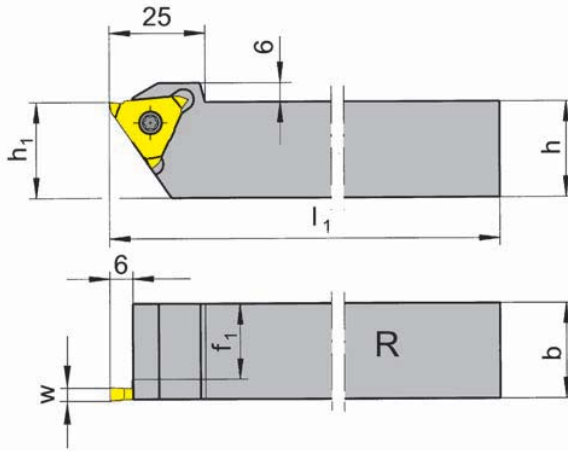
## 356



Depth of groove up to .197" (5.0 mm)  
Width of groove up to .287" (7.3 mm)

for use with Indexable insert

Type 315



R = right hand version shown

L = left hand version

Part number	h	b	l <sub>1</sub>	h <sub>1</sub>	f <sub>1</sub>	Size
R/L356.1616.03	16	16	125	20	13.0	03
R/L356.2020.03	20	20	125	20	17.0	
R/L356.2525.03	25	25	150	25	22.0	
R/L356.3232.03	32	32	150	32	29.0	
R/L356.1616.05	16	16	125	20	10.8	05
R/L356.2020.05	20	20	125	20	14.8	
R/L356.2525.05	25	25	150	25	19.8	
R/L356.3232.05	32	32	150	32	26.8	
R/L356.2020.07	20	20	125	20	13.0	07
R/L356.2525.07	25	25	150	25	18.0	
R/L356.3232.07	32	32	150	32	25.0	

State R or L version

w see indexable inserts

Dimensions in mm

Further sizes upon request

Spare parts

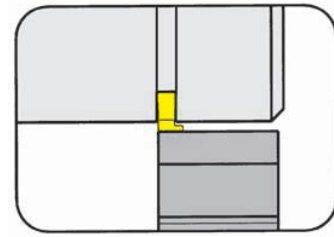
Toolholder	Screw	TORX PLUS® Wrench
R/L356....03/05	5.12T20P	T20PQ
R/L356....07	5.15T20P	T20PQ



TOOLHOLDER Type

## 356

Depth of groove up to .197" (5.0 mm)  
Width of groove up to .406" (10.3 mm)

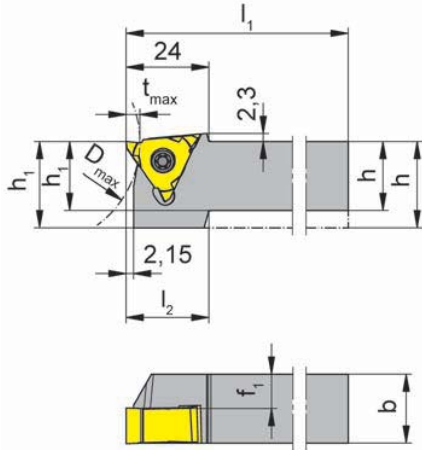


for use with Indexable insert

Type 315

Depth of groove in relation to outer-Ø

D <sub>max</sub>	t <sub>max</sub>
30	5.0
40	4.5
60	4.0
115	3.5
185	3.0



R = right hand version shown

L = left hand version

Part number	h	b	l <sub>1</sub>	l <sub>2</sub>	h <sub>1</sub>	f <sub>1</sub>	Size
R/L356.1616.13	16	16	125	21	20	13.0	03
R/L356.1616.15	16	16	125	21	20	10.8	05
R/L356.2020.15	20	20	125	21	20	14.8	
R/L356.2525.15	25	25	150	-	25	19.8	
R/L356.1616.16	16	16	125	21	20	10.0	06
R/L356.2020.16	20	20	125	21	25	14.0	
R/L356.2525.16	25	25	150	-	25	19.0	
R/L356.2020.17	20	20	125	21	25	13.0	07
R/L356.2525.17	25	25	150	-		18.1	
R/L356.2020.10	20	20	125	21	25	10.0	10

State R or L version

Dimensions in mm

Further sizes upon request

Spare parts

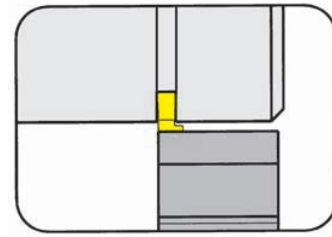
Toolholder	Screw	TORX PLUS® Wrench
R/L356....13/15	5.12T20P	T20PQ
R/L356....10/16/17	5.15T20P	T20PQ



TOOLHOLDER Type

## 356

Depth of groove up to .197" (5.0 mm)  
Width of groove up to .524" (13.3 mm)

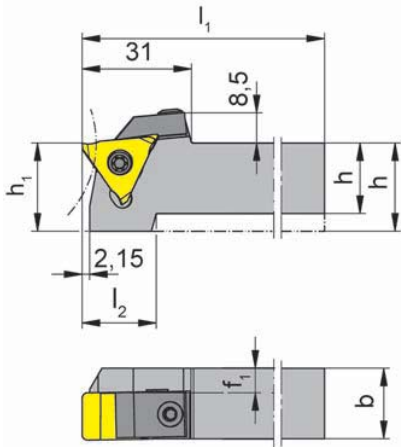


for use with Indexable insert

Type 315

Depth of groove in relation to outer-Ø

D <sub>max</sub>	t <sub>max</sub>
30	5.0
40	4.5
60	4.0
115	3.5
185	3.0



R = right hand version shown

L = left hand version

Part number	h	b	l <sub>1</sub>	l <sub>2</sub>	h <sub>1</sub>	f <sub>1</sub>	Size
R/L356.2020.2.13	20	20	125	21	20	7	13
R/L356.2525.2.13	25	25	150	-	25	12	

State R or L version

Dimensions in mm

Further sizes upon request

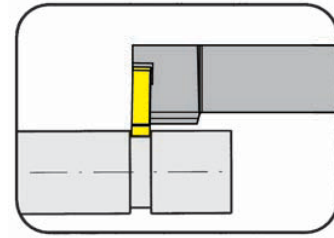


Spare parts

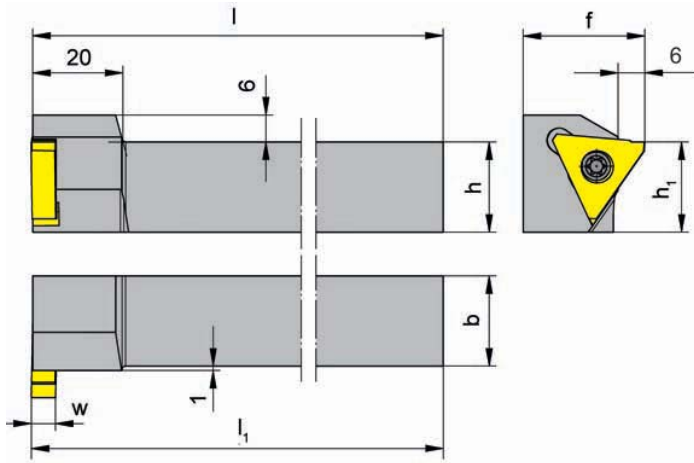
Toolholder	Clamp	Screw	TORX PLUS® Wrench
R/L356.2...	010.2013.0468	5.15T20P	T20PQ

TOOLHOLDER Type

## 357



Depth of groove up to .197" (5.0 mm)  
Width of groove up to .209" (5.3 mm)



R = right hand version shown

L = left hand version

for use with Indexable insert

Type 315  
A315

Part number	h	h <sub>1</sub>	b	l	l <sub>1</sub>	f	Size
R/L357.2020.05	20		20	125	125.3	27	05
R/L357.2525.05	25	25	25	150	150.3	32	

State R or L version

w see indexable inserts

Dimensions in mm

Further sizes upon request



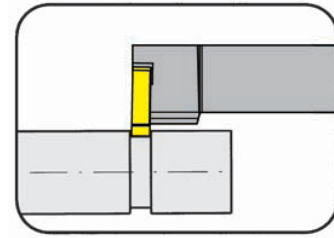
Spare parts

Toolholder	Screw	TORX PLUS® Wrench
R/L357.2...	5.12T20P	T20PQ

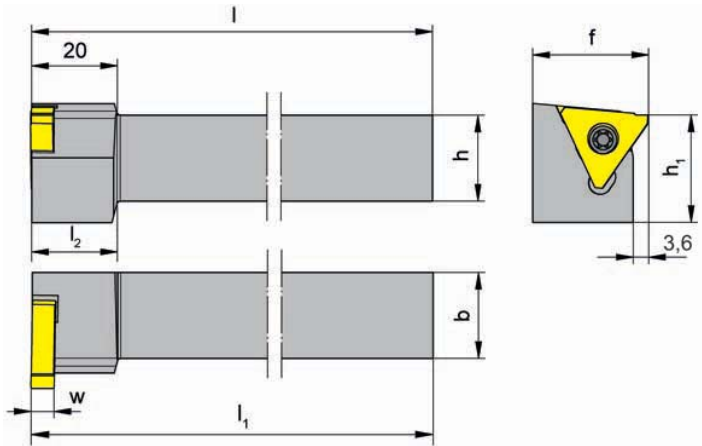
J6

TOOLHOLDER Type

## 357



Depth of groove up to .197" (5.0 mm)  
Width of groove up to .209" (5.3 mm)



for use with Indexable insert

Type 315  
A315

R = right hand version shown

L = left hand version

Part number	h	h <sub>1</sub>	b	l	l <sub>1</sub>	l <sub>2</sub>	f	Size
R/L357.2020.15	20	25	20	125	125.3	20	27	05
R/L357.2525.15	25	25	25	150	150.3	-	32	

State R or L version

w see indexable inserts

Dimensions in mm

Further sizes upon request



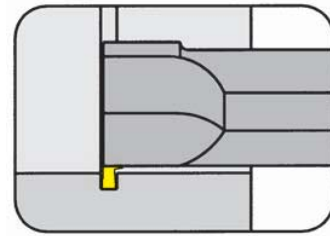
Spare parts

Toolholder	Screw	TORX PLUS® Wrench
R/L357.2...	5.12T20P	T20PQ



TOOLHOLDER Type

## U333

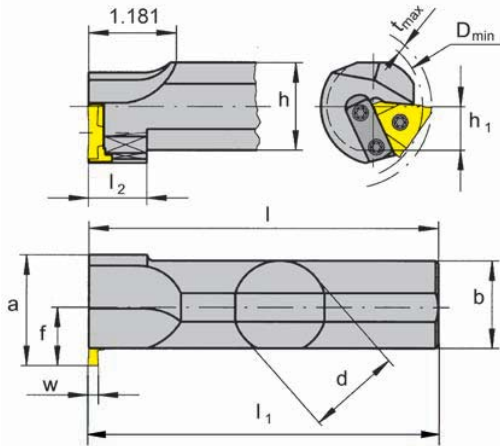


Bore Ø from  
Width of groove up to

1.693"  
.209"

for use with Indexable  
insert

Type 315



R = right hand version shown

L = left hand version

Depth of groove in relation to bore Ø

D <sub>min</sub>	t <sub>max</sub>
1.693	.070
1.811	.079
1.968	.118
2.362	.157
3.149	.177
4.000	.197

Part number	d	l	l <sub>1</sub>	l <sub>2</sub>	h	h <sub>1</sub>	f	D <sub>min</sub>	b	a	Size
R/LU333.1000.05	1.000	6.625	6.637	.750	.921	.461	.787		1.000		
R/LU333.1250.05	1.250	8.000	8.012	.750	1.171	.586	.787	1.693	1.171	1.496	05
R/LU333.1500.05	1.500	10.000	10.012	-	1.421	.711	.944		1.421		

State R or L version

w see indexable inserts

Dimensions in inch

Further sizes upon request



Spare parts

Toolholder	Guide Strip	Screw	TORX PLUS® Wrench
R/LU333.1...	020.7000.0193	5.12T20P	T20PQ

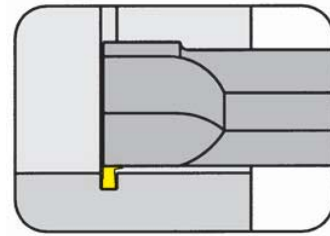
J8

TOOLHOLDER Type

## 333

Bore  $\varnothing$  from  
Width of groove up to

1.693" (43.0 mm)  
.209" (5.3 mm)

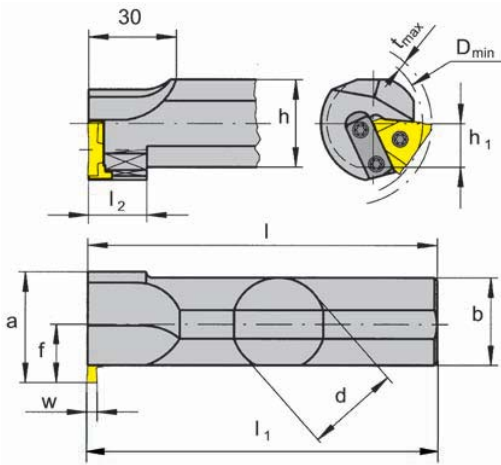


for use with Indexable  
insert

Type 315

Depth of groove in relation to bore  $\varnothing$

$D_{min}$	$t_{max}$
43	1.8
46	2.0
50	3.0
60	4.0
80	4.5
100	5.0



Part number	d	l	$l_1$	$l_2$	h	$h_1$	f	$D_{min}$	b	a	Size
R/L333.0025.03	25	170	170.3	-	23	11.5	-	-	25	38	03
R/L333.0032.03	32	200	200.3	20	30	15.0	20	43	30	38	03
R/L333.0025.05	25	170	170.3	20	23	11.5	20	43	25	38	05
R/L333.0032.05	32	200	200.3	20	30	15.0	20	43	30	38	05
R/L333.0040.05	40	250	250.3	-	38	19.0	24	45	38	44	05

State R or L version

w see indexable inserts

Dimensions in mm

Further sizes upon request

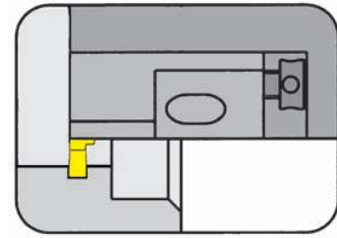


Spare parts

Toolholder	Guide Strip	Screw	TORX PLUS® Wrench
R/L333.00...	020.7000.0193	5.12T20P	T20PQ

CARTRIDGE Type

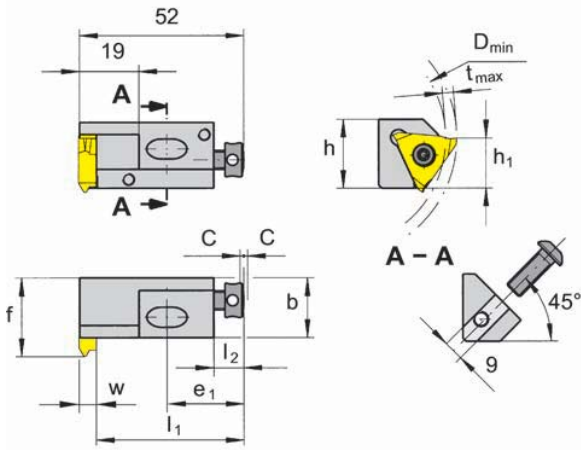
## 357



Bore Ø from 1.969" (50.0 mm)  
Width of groove up to .209" (5.3 mm)

for use with Indexable insert

Type 315



Depth of groove in relation to bore Ø

D <sub>min</sub>	t <sub>max</sub>
50	3,0
60	4,0
80	4,5
100	5,0

R = right hand version shown

L = left hand version

Part number	h <sub>1</sub>	f	h	b	l <sub>1</sub>	e <sub>1</sub>	l <sub>2</sub>	c	Size
R/L357.1619.05	16	25	21	19	46.8	24	9	2	05

State R or L version

w see indexable inserts

Dimensions in mm

Dimensions of seating see following page

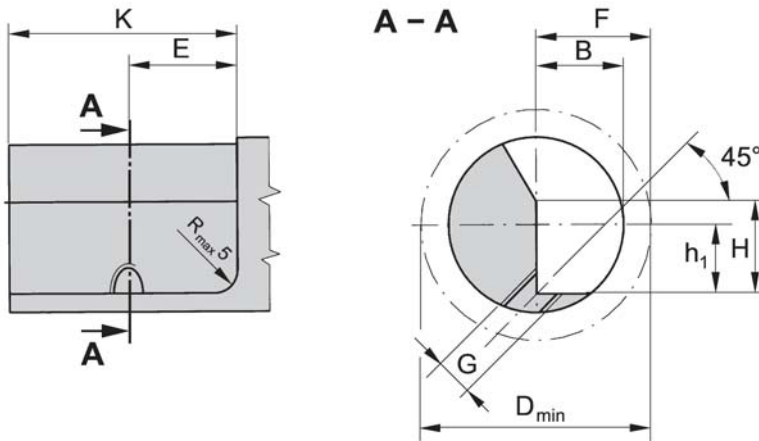
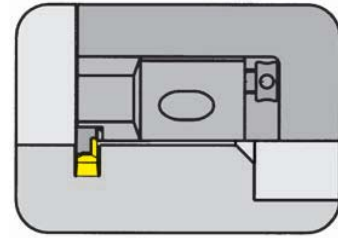


Spare parts

Cartridge	Screw	Screw	Axial Setscrew	Radial Setscrew	TORX PLUS® Wrench
R/L357.1619.05	8.25.351	5.12T20P	6.12.020	4.08.913	T20PQ

J10

SEATING DIMENSIONS CARTRIDGE Type 357



Cartridge	F	G	H	K	E	B	h <sub>1</sub>	D <sub>min</sub>	Fastening screw
357.1619.05	25	M8	21	50	24	19	16	50	8.25.351

Dimensions in mm

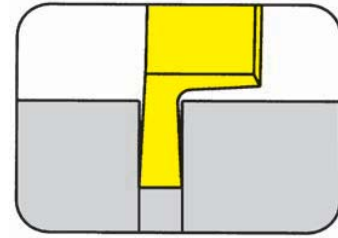


# GROOVING (external)



INDEXABLE INSERT Type

## 315

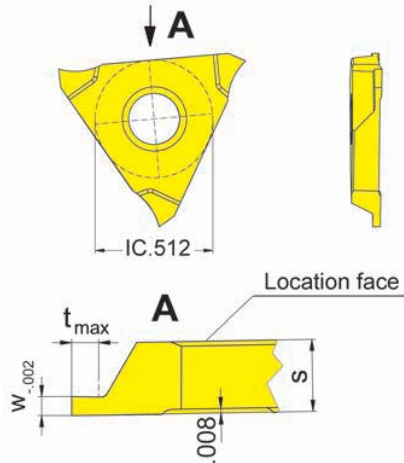


Circlip grooves  
Width of circlip Nw

DIN471/472  
.020 - .039"

for use with Toolholder

Type 356...03



R = right hand version shown

L = left hand version

J

Part number	Nw	w	t <sub>max</sub>	s	Size	TN32	TN35	TI25	TA45
R/L315.0050.32.00	.020	.022	.028	.126	03	ΔΔ			
R/L315.0060.32.00	.024	.026	.031			ΔΔ			
R/L315.0070.32.00	.028	.030	.043			ΔΔ			
R/L315.0080.32.00	.031	.034	.047			ΔΔ			
R/L315.0090.32.00	.035	.038	.055			ΔΔ			
R/L315.0100.32.00	.039	.042	.063			ΔΔ			
						P	•		
						M			
						K			
						S			
						N			
						H			

- ▲ on stock Δ 4 weeks
- main recommendation
- o alternative recommendation
- uncoated grades
- coated grades
- brazed/Cermet

Carbide grades

Dimensions in inch

State R or L version

External machining:

Right hand insert in right hand toolholder 356, left hand insert in left hand toolholder 356.

# GROOVING (external and internal)

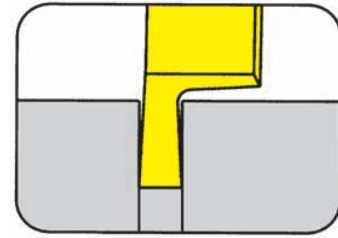


INDEXABLE INSERT Type

## 315

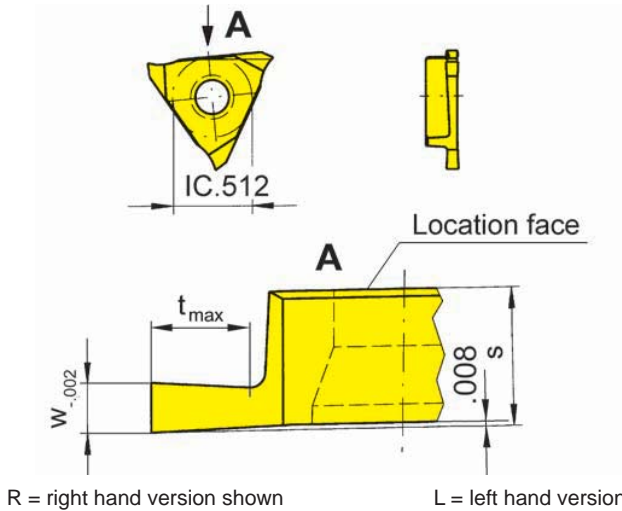
Circlip grooves  
Width of circlip Nw

DIN471/472  
.043 - .163"



for use with Toolholder

Type 333  
U333  
356  
U356



Part number	Nw	w	$t_{max}$	s	Size	Carbide grades					
						TN35	T125	TF45	TF46	TC92	AL96
R/L315.0110.00	.043	.049	.079	.213	05	▲/▲		▲/Δ			
R/L315.0130.00	.051	.057	.079	.213	05	▲/▲		▲/Δ			
R/L315.0160.00	.063	.069	.118	.213	05	▲/▲		/Δ			
R/L315.0185.00	.073	.078	.118	.213	05	▲/▲		Δ/Δ			Δ/
R/L315.0215.00	.085	.090	.157	.213	05	▲/▲		/Δ			Δ/
R/L315.0265.00	.104	.110	.157	.213	05	▲/▲		Δ/Δ			Δ/
R/L315.0315.00	.124	.130	.197	.213	05	▲/▲		▲/Δ		Δ/	
R/L315.0415.00	.163	.169	.197	.213	05	▲/▲		▲/Δ			/Δ
▲ on stock   Δ 4 weeks ● main recommendation ○ alternative recommendation □ uncoated grades ■ coated grades ■ brazed/Cermet						P	●	●	●	●	●
						M	●	●	●	●	●
						K	●	●	●	●	●
						S	●	●	●	●	●
						N	●	●	●	●	●
						H					

Dimensions in inch

State R or L version

Carbide grades

External machining:

Right hand insert in right hand toolholder 356, left hand insert in left hand toolholder 356.

Internal machining:

Right hand insert in left hand toolholder 333/357, left hand insert in right hand toolholder 333/357.

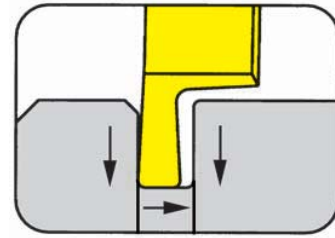


INDEXABLE INSERT Type

## 315

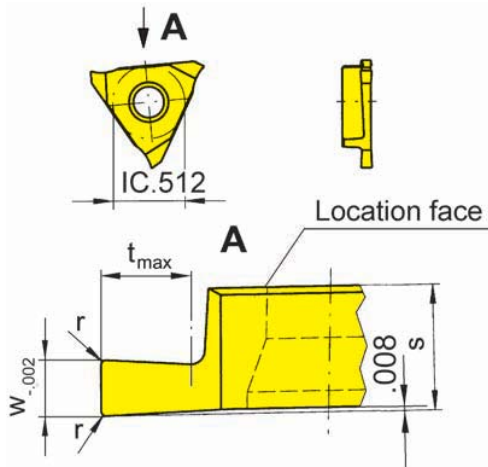
Depth of groove up to  
Width of groove

.157"  
.079 - .118"



for use with Toolholder

Type 333  
U333  
356  
U356  
357



R = right hand version shown

L = left hand version

Indexability length  
± .001"

Part number	w	r	s	t <sub>max</sub>	Size	Carbide grades				
						TN35	TF45	TF46	TC92	AL96
R/L315.0200.02	.079	.008	.213	.118	05	▲/▲				
R/L315.0200.04	.079	.016	.213	.118	05	▲/Δ				
R/L315.0300.02	.118	.008	.213	.157	05	▲/▲			/Δ	
R/L315.0300.04	.118	.016	.213	.157	05	Δ/Δ	Δ/			
						P	•	•	•	•
						M	•	•	•	•
						K	•	•	•	•
						S	•	•	•	•
						N	•	•	•	•
						H				

- ▲ on stock Δ 4 weeks
- main recommendation
- o alternative recommendation
- uncoated grades
- coated grades
- brazed/Cermet

Dimensions in inch

State R or L version

Carbide grades

External machining:

Right hand insert in right hand toolholder 356, left hand insert in left hand toolholder 356.

Internal machining:

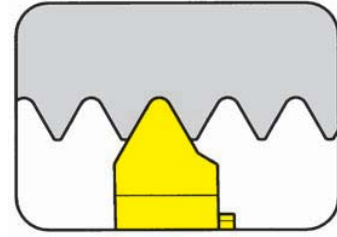
Right hand insert in left hand toolholder 333/357, left hand insert in right hand toolholder 333/357.

# THREADING (external) Partial profile



INDEXABLE INSERT Type

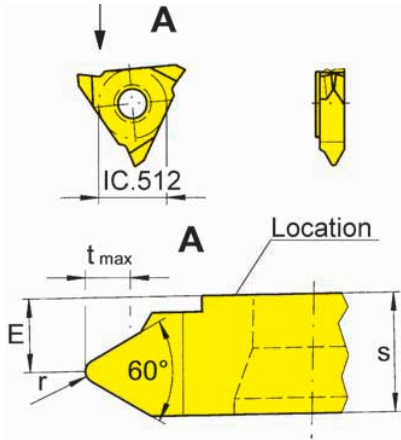
**315**  
Metric ISO thread



Pitch 1.0 - 6.0 mm

for use with Toolholder

Type 356  
U356



R = right hand version shown

L = left hand version

Part number	P	t <sub>max</sub>	r	E	s	Size	TN35	TI25	TA45
R/L315.0610.01	1.00	0.61	0.12	4.50	5.45	05	▲/Δ		
R/L315.0712.01	1.25	0.77	0.15	4.50	5.45	05	▲/Δ		
R/L315.0915.01	1.50	0.92	0.20	4.15	5.45	05	▲/▲		
R/L315.1017.01	1.75	1.07	0.25	4.15	5.45	05	▲/Δ		
R/L315.1220.01	2.00	1.23	0.25	4.15	5.45	05	▲/Δ		
R/L315.1525.01	2.50	1.53	0.35	3.80	5.45	05	▲/Δ		
R/L315.1830.01	3.00	1.84	0.40	3.60	5.45	05	▲/Δ		
R/L315.3060.01	3.00-6.00	4.15	0.40	3.00	6.10	05	▲/▲		
R/L315.2135.01	3.50	2.15	0.50	3.40	5.45	05	Δ/Δ		
▲ on stock Δ 4 weeks ● main recommendation ○ alternative recommendation ■ uncoated grades ■ coated grades ■ brazed/Cermet							P	●	
							M	●	
							K	●	
							S	●	
							N	●	
							H		

Dimensions in mm

State R or L version

Carbide grades

No shims necessary. All HORN thread profiles are manufactured with full ground radial clearance.

External machining:

Right hand insert in right hand toolholder 356, left hand insert in left hand toolholder 356.



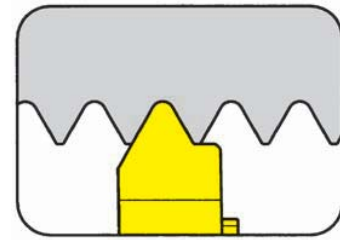


# THREADING (external) Full profile



INDEXABLE INSERT Type

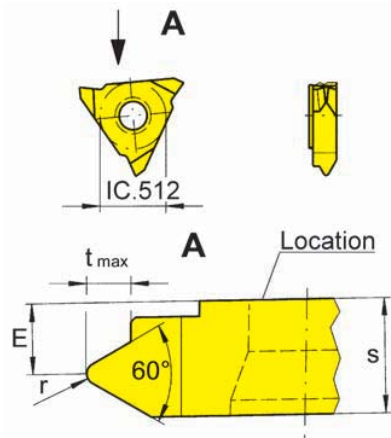
**315**  
Metric ISO thread



Pitch	1.0 - 6.0 mm
-------	--------------

for use with Toolholder

Type 356  
U356



R = right hand version shown

L = left hand version

J

Part number	P	t <sub>max</sub>	r	E	s	Size	TN35	T125	TA45
R/L315.0610.02	1.00	0.61	0.12	4.50	5.45	05	▲/▲		
R/L315.0712.02	1.25	0.77	0.15	4.50	5.45	05	▲/Δ		
R/L315.0915.02	1.50	0.92	0.20	4.15	5.45	05	▲/▲		
R/L315.1017.02	1.75	1.07	0.25	4.15	5.45	05	▲/Δ		
R/L315.1220.02	2.00	1.23	0.25	4.15	5.45	05	▲/▲		
R/L315.1525.02	2.50	1.53	0.35	3.80	5.45	05	▲/Δ		
R/L315.1830.02	3.00	1.84	0.40	3.60	5.45	05	▲/▲		
R/L315.2135.02	3.50	2.15	0.50	3.40	5.45	05	▲/Δ		
R/L315.2440.02	4.00	2.45	0.55	3.30	5.45	05	▲/▲		
R/L315.3050.02	5.00	3.07	0.70	4.00	6.50	05	▲/Δ		
R/L315.3660.02	6.00	3.68	0.85	4.10	7.00	05	▲/Δ		
							P	•	•
							M	•	•
							K	•	•
							S	•	•
							N	•	•
							H	•	•

- ▲ on stock Δ 4 weeks
- main recommendation
- o alternative recommendation
- uncoated grades
- coated grades
- brazed/Cermet

Dimensions in mm

State R or L version

Carbide grades

No shims necessary. All HORN thread profiles are manufactured with full ground radial clearance.

External machining:

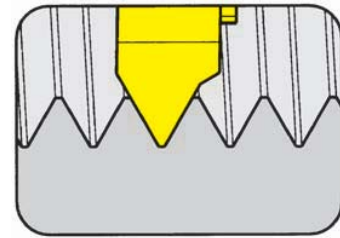
Right hand insert in right hand toolholder 356, left hand insert in left hand toolholder 356.

# THREADING (internal) Partial profile



INDEXABLE INSERT Type

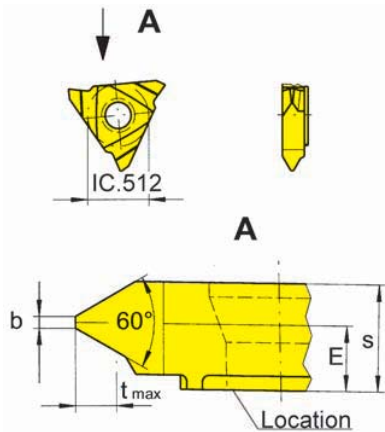
**315**  
Metric ISO thread



Pitch	1.0 - 3.5 mm
-------	--------------

for use with Toolholder

Type 333  
U333  
357



R = right hand version shown

L = left hand version

Part number	P	t <sub>max</sub>	E	b	s	D <sub>min</sub>	Size	TN35	TI25	TA45
R/L315.0510.01	1.0	0.55	4.85	0.12	5.45	40	05	Δ/Δ		
R/L315.0815.01	1.5	0.81	4.65	0.18	5.45	40	05	Δ/Δ		
R/L315.1020.01	2.0	1.08	4.45	0.25	5.45	40	05	Δ/		
R/L315.1325.01	2.5	1.35	4.25	0.31	5.45	43	05	Δ/		
R/L315.1630.01	3.0	1.62	4.05	0.37	5.45	43	05	Δ/		
R/L315.1835.01	3.5	1.89	3.90	0.43	5.45	43	05	Δ/		
								P	•	
								M	•	
								K	•	
								S	•	
								N	•	
								H		

- ▲ on stock Δ 4 weeks
- main recommendation
- o alternative recommendation
- uncoated grades
- coated grades
- brazed/Cermet

Dimensions in mm

State R or L version

Carbide grades

No shims necessary. All HORN thread profiles are manufactured with full ground radial clearance.

Internal machining:

Right hand threading insert in right hand toolholder 333/357, left hand threading insert in left hand toolholder 333/357

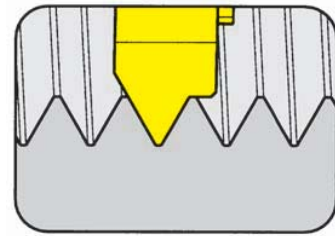


# THREADING (internal) Full profile



INDEXABLE INSERT Type

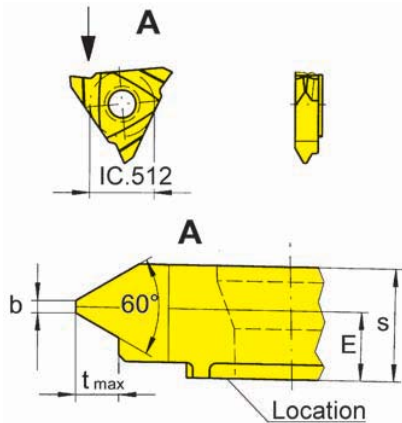
**315**  
Metric ISO thread



Pitch	1.0 - 3.5 mm
-------	--------------

for use with Toolholder

Type 333  
U333  
357



R = right hand version shown

L = left hand version

J

Part number	P	t <sub>max</sub>	E	b	s	D <sub>min</sub>	Size	TN35	T125	TA45
R/L315.0510.02	1.0	0.55	4.85	0.12	5.45	40	05	Δ/		
R/L315.0815.02	1.5	0.81	4.65	0.18	5.45	40	05	▲/		
R/L315.1020.02	2.0	1.08	4.45	0.25	5.45	40	05	▲/Δ		
R/L315.1325.02	2.5	1.35	4.25	0.31	5.45	43	05	▲/		
R/L315.1630.02	3.0	1.62	4.05	0.37	5.45	43	05	▲/Δ		
R/L315.1835.02	3.5	1.89	3.90	0.43	5.45	43	05	Δ/		
								P	•	
								M	•	
								K	•	
								S	•	
								N	•	
								H		

- ▲ on stock Δ 4 weeks
- main recommendation
- o alternative recommendation
- uncoated grades
- coated grades
- brazed/Cermet

Dimensions in mm

State R or L version

Carbide grades

No shims necessary. All HORN thread profiles are manufactured with full ground radial clearance.

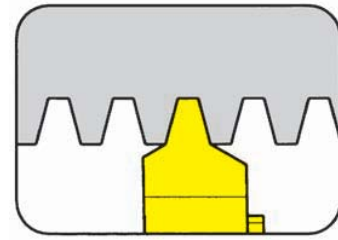
Internal machining:

Right hand threading insert in right hand toolholder 333/357, left hand threading insert in left hand toolholder 333/357

INDEXABLE INSERT Type

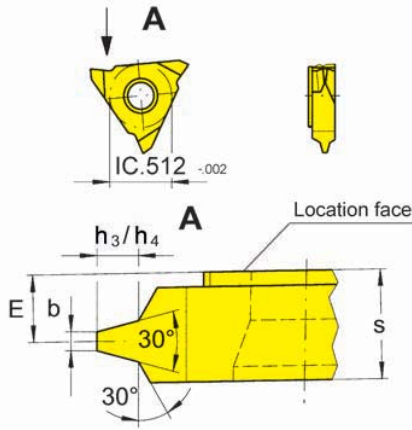
## 315

Pitch 1.5 - 6.0 mm



for use with Toolholder

Type 333  
U333  
356  
U356  
357



R = right hand version shown

L = left hand version

Metric ISO trapezoidal thread DIN 103

Part number	P	E	b	s	D <sub>min</sub>	h <sub>3</sub> / h <sub>4</sub>	Size	TN35	T125	TA45
R/L315.1015.02	1.5	4.5	0.47	5.45	43	0.90	05	▲/▲		
R/L315.1320.02	2.0	4.3	0.60	5.45	43	1.25	05	▲/▲		
R/L315.1730.02	3.0	4.0	0.96	5.45	43	1.75	05	▲/▲		
R/L315.2240.02	4.0	3.6	1.33	5.45	43	2.25	05	▲/▲		
R/L315.2750.02	5.0	3.3	1.70	5.45	43	2.75	05	▲/▲		
R/L315.3560.02	6.0	3.0	1.93	5.45	43	3.50	05	▲/▲		
								P •		
								M •		
								K •		
								S •		
								N •		
								H		

- ▲ on stock Δ 4 weeks
- main recommendation
- o alternative recommendation
- uncoated grades
- coated grades
- brazed/Cermet

Dimensions in mm

State R or L version

Carbide grades

No shims necessary. All HORN thread profiles are manufactured with full ground radial clearance.

External machining:

Right hand insert in right hand toolholder 356, left hand insert in left hand toolholder 356.

Internal machining:

Right hand insert in left hand toolholder 333/357, left hand insert in right hand toolholder 333/357.

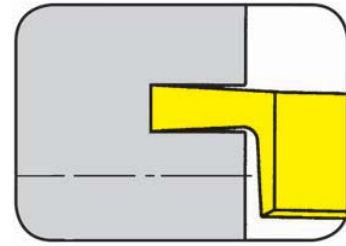


# FACE GROOVING



INDEXABLE INSERT Type

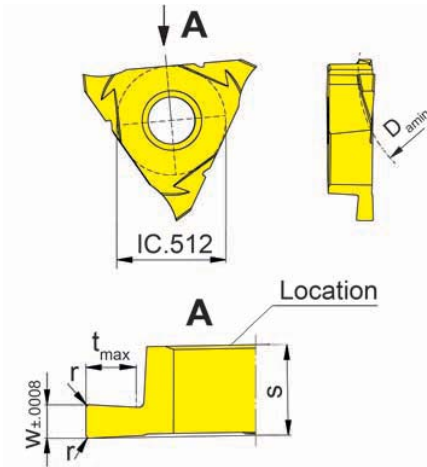
## A315



Depth of groove up to .118"  
Width of groove .059 - .118"

for use with Toolholder

Type 356  
U356  
357



R = right hand version shown

L = left hand version

J

Part number	w	s	r	t <sub>max</sub>	D <sub>a min</sub>	Size	TN32	TN35	TI22	TA45	TH35
LA315.2015.02R	.059			.079	.787	05					▲
LA315.3020.02R	.079	.213	.008	.118	1.181						▲
LA315.3030.02R	.118			.118	1.181						▲
RA315.2015.02L	.059			.079	.787	05					▲
RA315.3020.02L	.079	.213	.008	.118	1.181						▲
RA315.3030.02L	.118			.118	1.181						▲
							P				•
							M				•
							K				•
							S				•
							N				•
							H				•

- ▲ on stock Δ 4 weeks
- main recommendation
- o alternative recommendation
- uncoated grades
- coated grades
- brazed/Cermet

Dimensions in inch  
State R or L version

Carbide grades

HORN - THE LEADERS IN GROOVING TECHNOLOGY



LEGENDARY CAPABILITIES

DS END MILLING

J

HORN - INTELLIGENT TOOL DESIGN AT WORK.



For further information, please see HORN catalog "CARBIDE MILLING TOOLS".