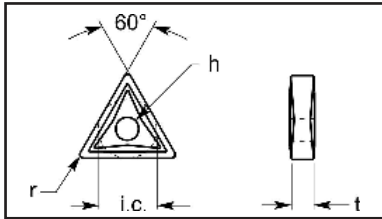


Triangle Negative

TURNING

Utility Triangle Negative GP1 Chipbreaker With Hole



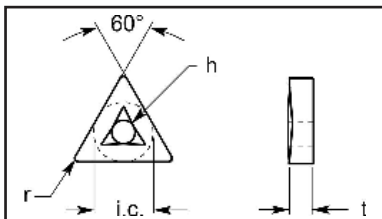
Part No.	Dimensional Specifications			
	i.c.	t	h	r
TNSP321GP1	.373/.377	.140/.146	.147/.153	1/64
TNSP322GP1	.373/.377	.140/.146	.147/.153	1/32
TNSP323GP1	.373/.377	.134/.140	.148/.152	3/64
TNSP331GP1	.373/.377	.202/.208	.147/.153	1/64
TNSP332GP1	.373/.377	.202/.208	.147/.153	1/32
TNSP333GP1	.373/.377	.202/.208	.147/.153	3/64
TNSP431GP1	.497/.503	.196/.202	.200/.206	1/64
TNSP432GP1	.497/.503	.196/.202	.200/.206	1/32
TNSP433GP1	.497/.503	.196/.202	.200/.206	3/64
TNSP434GP1	.497/.503	.200/.207	.200/.206	1/16
TNSP438GP1	.497/.503	.196/.202	.200/.206	1/8
TNSP542GP1	.622/.628	.264/.270	.247/.253	1/32
TNSP543GP1	.622/.628	.264/.270	.247/.253	3/64
TNSP544GP1	.622/.628	.264/.270	.247/.253	1/16

MILLING

GROOVING

DRILLING

Utility Triangle Negative R5 Chipbreaker With Hole



Part No.	Dimensional Specifications			
	i.c.	t	h	r
TNSS321R5	.373/.377	.133/.139	.147/.153	1/64
TNSS322R5	.373/.377	.133/.139	.147/.153	1/32
TNSS332R5	.373/.377	.204/.210	.147/.153	1/32
TNSS333R5	.373/.377	.195/.201	.147/.153	3/64
TNSS431R5	.497/.503	.202/.208	.200/.206	1/64
TNSS432R5	.497/.503	.195/.201	.200/.206	1/32
TNSS433R5	.497/.503	.195/.201	.200/.206	3/64
TNSS542R5	.622/.628	.261/.267	.247/.253	1/32
TNSS543R5	.622/.628	.261/.267	.247/.253	3/64
TNSS544R5	.622/.628	.261/.267	.247/.253	1/16

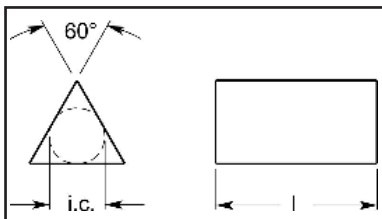
THREADING

BRAZED
BLANKS

RECTANGLES
STB

Triangle Negative

• variable thickness quoted on request



Part No.	Dimensional Specifications	
	i.c.	l
UTB120.880LG	.389/.403	.895/.905

WOOD
WORKING

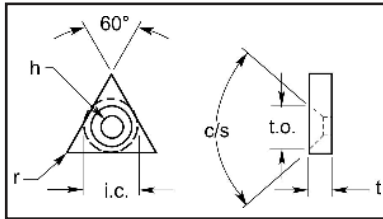
OIL & GAS
MINING

MISC.
SHAPES

TURNING
MILLING
GROOVING
DRILLING
THREADING
BRAZED BLANKS
RECTANGLES STB
WOOD WORKING
OIL & GAS MINING
MISC. SHAPES

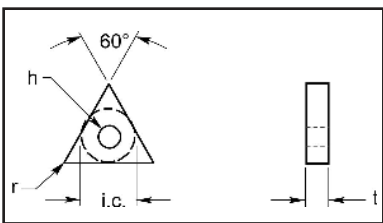
Triangle Negative

Triangle Negative Chipbreaker With Hole



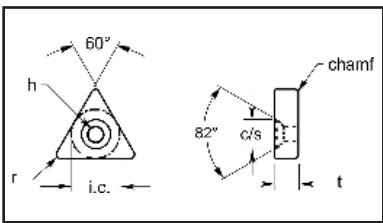
Part No.	Dimensional Specifications					
	i.c.	t	h	t.o.	c/s	r
UTD7P-NEG	.454/.460	.135/.143	.122/.128	.267/.273	82°	1/32
UTD8P-NEG	.517/.523	.202/.207	.176/.182	.383/.389	82°	0

Triangle Negative With Hole • variable thickness quoted on request



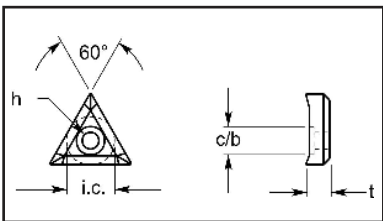
Part No.	Dimensional Specifications			
	i.c.	t	h	r
UTN20	.170/.176	.077/.082	.091/.095	0
UTN40	.269/.275	.140/.112	.135/.139	0
UTN60	.392/.398	.135/.143	.161/.165	0

Utility Triangle Negative With Hole And Countersink



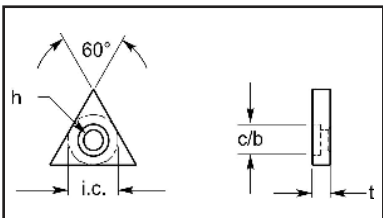
Part No.	Dimensional Specifications					
	i.c.	t	h	c/s	r	chamf
UTST1233	.360/.370	.196/.201	.122/.128	.263/.269	.047	.042X45°
UTST1624	.485/.495	.136/.141	.137/.141	.328/.334	.060	.037X45°
UTST1634	.485/.495	.202/.207	.137/.141	.328/.334	.060	.037X45°

Triangle Negative F3 Chipbreaker With Hole



Part No.	Dimensional Specifications				
	i.c.	t	h	c/b	r
UT220F-F3	.265/.270	.129/.135	.091/.095	.155/.161	0

Triangle Negative Chipbreaker With Hole



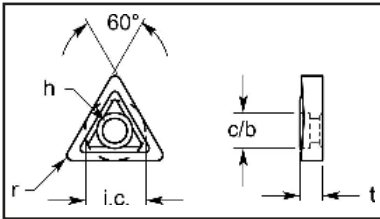
Part No.	Dimensional Specifications				
	i.c.	t	h	c/b	r
UT220NW/OCHAMFER	.265/.275	.142/.148	.090/.096	.151/.157	0

Triangle Negative

TURNING

Utility Triangle Negative F4 Chipbreaker With Hole

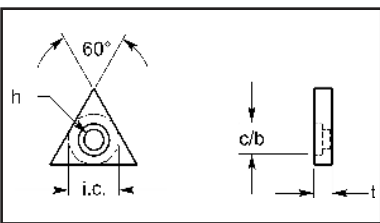
MILLING



Part No.	Dimensional Specifications				
	i.c.	t	h	c/b	r
UT221P-F4	.248/.252	.140/.145	.091/.095	.155/.161	1/64
UT321P-F4	.373/.377	.140/.145	.148/.152	.242/.248	1/64

Triangle Negative With Hole And Counterbore

GROOVING

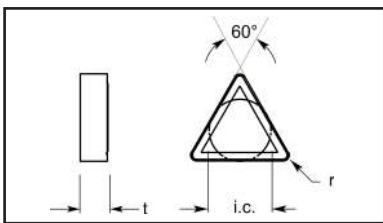


Part No.	Dimensional Specifications				
	i.c.	t	h	c/b	r
UT-221-N	.265/.275	.142/.148	.090/.096	.151/.157	0
UT-321-N	.390/.400	.142/.148	.147/.153	.238/.244	0

DRILLING

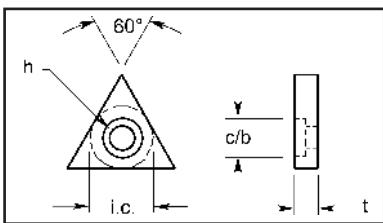
Triangle Negative Chipbreaker Single Sided With hole

THREADING



Part No.	Dimensional Specifications		
	i.c.	t	r
DWG#U-3761	.389/.395	.147/.153	1/32

BRAZED
BLANKS



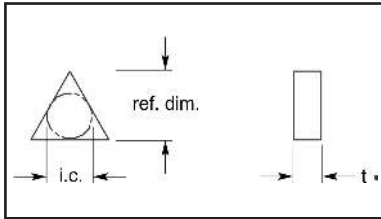
Part No.	Dimensional Specifications			
	i.c.	t	h	c/b
DWG#DTC375	.390/.400	.142/.148	.147/.153	.238/.244

RECTANGLES
STB

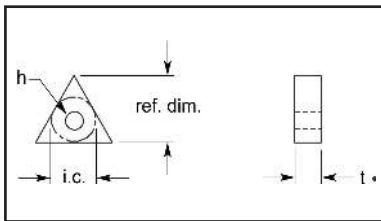
WOOD
WORKING

OIL & GAS
MINING

MISC.
SHAPES

Triangle Oversized Negative • variable thickness quoted on request

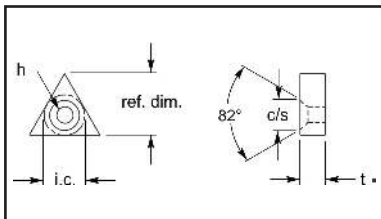
Part No.	Dimensional Specifications	
	i.c.	ref. dim
TNR2-0UST	.270/.280	.405
TNR3-0UST	.400/.410	.608
TNR4-0UST	.525/.535	.795
TNR5-0UST	.655/.665	.990
TNR6-0UST	.780/.790	1.177

Triangle Oversized Negative With Hole • variable thickness quoted on request

Part No.	Dimensional Specifications		
	i.c.	h	ref. dim
TNRA3-0UST	.400/.410	.147/.153	.608
TNRA4-0UST	.525/.535	.200/.206	0.795

Triangle Oversized Negative With Hole And Countersink

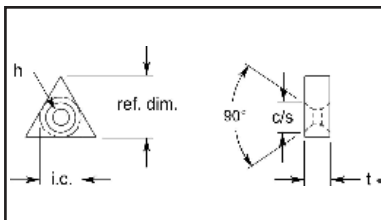
• variable thickness quoted on request



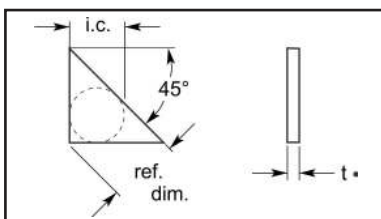
Part No.	Dimensional Specifications		
	i.c.	h	c/s
TNRB3-0UST-#5	.400/.410	.151/.161	.301/.321
TNRB4-0UST-#5	.525/.535	.151/.161	.301/.321
TNRB5-0UST-#10	.655/.665	.215/.221	.438/.444
TNRB6-0UST-#10	.780/.790	.213/.223	.421/.441

Triangle Oversized Negative With Hole and Dbl. Countersinks

• variable thickness quoted on request



Part No.	Dimensional Specifications		
	i.c.	h	c/s
TNRC330-UST	.400/.410	.145/.155	.230/.250
TNRC3-0-VAL-OS	.400/.410	.147/.153	.240/.260
TNRC430UST	.525/.535	.199/.205	.342/.362
TNRC4-0-VAL-OS	.525/.535	.200/.205	.350/.370
TNRC5-0UST-#10	.655/.665	.248/.253	.415/.435

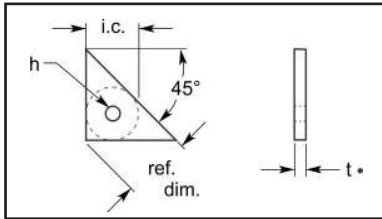
Triangle Oversized Negative • variable thickness quoted on request

Part No.	Dimensional Specifications	
	i.c.	ref. dim
XTNR340UST	.405/.415	.495
XTNR4-0UST	.535/.545	.657
XTNR5-0UST	.660/.670	.802

Triangle Oversized

TURNING

Triangle Oversized Negative With Hole



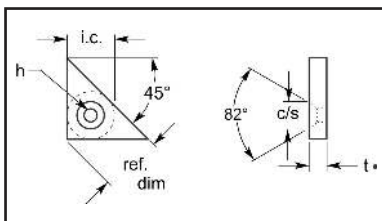
- variable thickness quoted on request

Part No.	Dimensional Specifications		
	i.c.	h	ref. dim
XTNRA4-0UST	.535/.545	.151/.161	.651
XTNRA5-0UST	.660/.670	.151/.161	.802

MILLING

GROOVING

Triangle Oversized Negative With Hole And Countersink



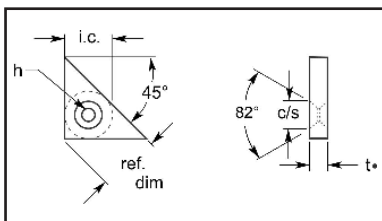
- variable thickness quoted on request

Part No.	Dimensional Specifications		
	i.c.	h	ref. dim
XTNRB4-0UST-#5	.535/.545	.153/.159	.651

DRILLING

THREADING

Triangle Oversized Negative With Hole and Dbl. Countersinks



- variable thickness quoted on request

Part No.	Dimensional Specifications		
	i.c.	h	ref. dim
XTNRC340	.405/.415	.151/.161	n/a
XTNRC4-0UST-#5	.535/.545	.151/.161	.651
XTNRC5-0UST-#5	.620/.630	.151/.161	.802

BRAZED
BLANKS

RECTANGLES
STB

WOOD
WORKING

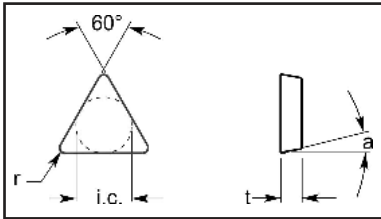
OIL & GAS
MINING

MISC.
SHAPES

TURNING
MILLING
GROOVING
DRILLING
THREADING
BRAZED BLANKS
RECTANGLES STB
WOOD WORKING
OIL & GAS MINING
MISC. SHAPES

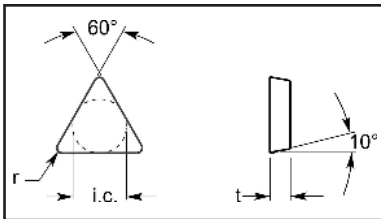
Triangle Positive

Triangle Positive



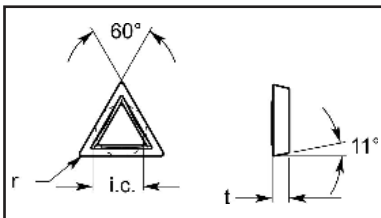
Part No.	Dimensional Specifications			
	i.c.	t	r	a
TPR2.52.020RAD	.331/.337	.135/.143	1/16	10°
TPR2.521	.330/.338	.148/.152	1/64	11°
TPR220	.265/.270	.135/.143	0	10°
TPR222	.265/.270	.135/.143	1/32	10°
TPR320	.392/.398	.135/.143	0	10°
TPR322	.392/.398	.135/.143	1/32	10°
TPR332	.392/.398	.198/.206	1/32	10°
TPR42.51	.517/.523	.166/.174	1/64	10°
TPR420	.517/.523	.135/.143	0	10°
TPR430	.517/.523	.198/.206	0	10°
TPR432	.517/.523	.198/.206	1/32	10°
TPR434	.517/.523	.198/.206	1/16	10°
TPR438	.517/.523	.198/.206	1/8	10°
TPR444	.517/.523	.260/.268	1/16	10°
TPR530	.645/.650	.198/.206	0	11°
TPR532	.645/.650	.198/.206	1/32	10°
TPR54(16)	.645/.650	.260/.268	1/4	10°
TPR540	.645/.650	.260/.268	0	10°
TPR542	.645/.650	.261/.269	1/32	10°
TPR544	.645/.650	.260/.268	1/16	10°
TPR640	.770/.775	.260/.268	0	10°
TPR644	.770/.775	.260/.268	1/16	10°

Utility Triangle Positive



Part No.	Dimensional Specifications		
	i.c.	t	r
TPS222	.247/.253	.135/.140	1/32
TPS321	.322/.378	.140/.145	1/64
TPS322	.372/.378	.140/.145	1/32
TPS431	.495/.505	.198/.203	1/64
TPS432	.495/.505	.198/.203	1/32
TPS433	.495/.505	.198/.203	3/64
TPS434	.495/.505	.198/.203	1/16
TPS436	.495/.505	.198/.203	3/32

Triangle Positive GP5 Chipbreaker

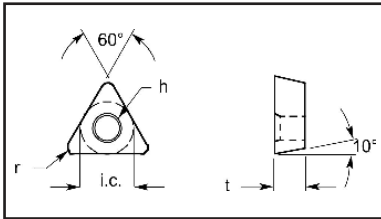


Part No.	Dimensional Specifications		
	i.c.	t	r
TPRR221.5GP5	.267/.273	.140/.146	.043
TPRR321GP5	.389/.395	.134/.140	1/64
TPRR322GP5	.389/.395	.134/.140	1/32
TPRR431.5GP5	.520/.528	.203/.209	.045

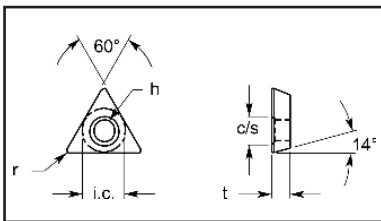
Triangle Positive

TURNING

Triangle Positive With Hole



Part No.	Dimensional Specifications			
	i.c.	t	h	r
TPRA2.52.02R15H	.331/.337	.135/.143	.145/.155	.020
TPRA2.521	.330/.338	.148/.152	.118/.124	1/64
TPRA430	.514/.520	.200/.208	.200/.206	0



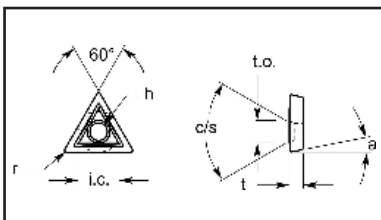
Part No.	Dimensional Specifications				
	i.c.	t	h	c/s	r
TDRA2.521	.331/.337	.135/.143	.145/.155	.224/.234	1/64

MILLING

GROOVING

DRILLING

Triangle Positive Chipbreaker With Hole And Countersink

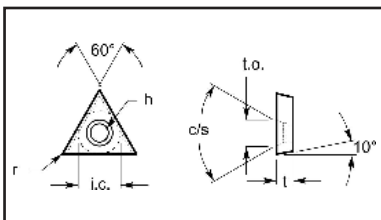


Part No.	Dimensional Specifications						
	i.c.	t	h	t.o.	c/s	r	a
TPRH21.51GP5	.265/.270	.104/.110	.113/.119	.172/.178	82°	1/64	10°
TPRH21.52GP5	.265/.270	.104/.110	.113/.119	.172/.178	82°	1/32	10°
TPRH221GP5	.265/.270	.140/.148	.113/.119	.172/.178	82°	1/64	11°
TPRH222GP5	.265/.270	.135/.143	.114/.118	.172/.178	82°	1/32	10°
TPRH32.51GP5	.389/.395	.165/.171	.166/.172	.227/.233	60°	1/64	11°
TPRH321GP5	.389/.395	.134/.140	.166/.172	.227/.233	60°	1/64	11°
TPRH322GP5	.389/.395	.134/.140	.166/.172	.227/.233	60°	1/32	11°

THREADING

BRAZED
BLANKS

Triangle Positive With Hole And Countersink

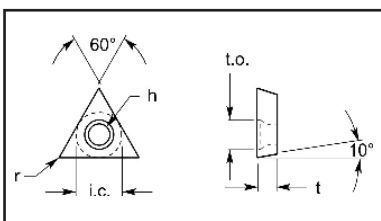


Part No.	Dimensional Specifications					
	i.c.	t	h	t.o.	c/s	r
TPRW320-60	.392/.398	.135/.143	.173/.177	.250/.256	60°	0
TPRW322-60	.392/.398	.135/.143	.173/.177	.250/.256	60°	1/32

RECTANGLES
STB

WOOD
WORKING

Triangle Positive With Hole And Countersink

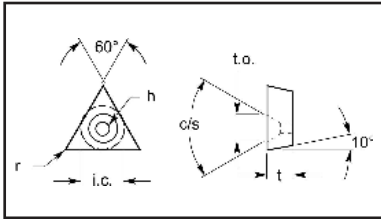


Part No.	Dimensional Specifications					
	i.c.	t	h	t.o.	c/s	r
TPRW430	.517/.523	.198/.206	.213/.219	.292/.298	ISO	0

OIL & GAS
MINING

MISC.
SHAPES

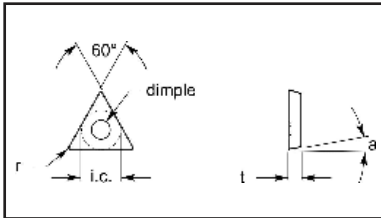
Triangle Positive With Hole And Countersink



Part No.	Dimensional Specifications					
	i.c.	t	h	t.o.	c/s	r
TPRB21.51	.266/.274	.104/.114	.124/.130	.198/.208	82°	1/64
ATPR541	.331/.337	.135/.143	.141/.147	.262/.268	82°	1/64
ATPR642	.392/.398	.135/.143	.167/.173	.324/.330	82°	1/32
* USM41	.329/.335	.135/.143	.124/.128	.267/.273	82°	1/64
TPRB320-EMP	.385/.389	.136/.142	.125/.130	.259/.265	82°	.006
UTD6P	.392/.398	.139/.147	.122/.128	.267/.273	82°	0
UTD8P	.517/.523	.198/.206	.176/.182	.383/.389	82°	0

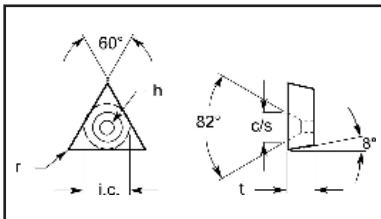
* No grind stock on periphery

Triangle Positive With Dimple



Part No.	Dimensional Specifications				
	i.c.	t	dimple	a	r
DWG#U-4593	.392/.398	.140/.145	.185	10°	0

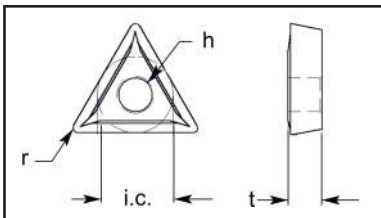
Triangle Positive With Hole And Countersink



Part No.	Dimensional Specifications				
	i.c.	t	h	c/s	r
DWG#U-3445-1	.265/.270	.135/.140	.091/.095	.152/.158	1/32
DWG#U-3445-2	.265/.270	.135/.140	.091/.095	.152/.158	1/64



Triangle Positive F5 Chipbreaker And ISO Hole

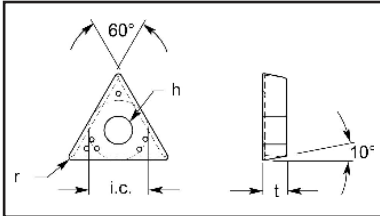


Part No.	Dimensional Specifications			
	i.c.	t	h	r
TPRM432F5	.514/.520	.214/.220	.200/.206	1/32

Triangle Positive

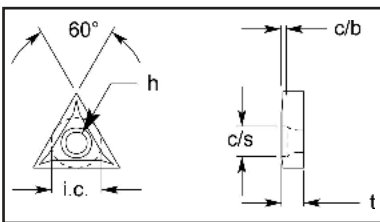


Triangle Positive With ISO Hole



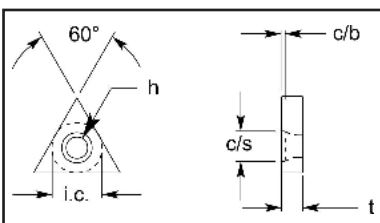
Part No.	Dimensional Specifications			
	i.c.	t	h	r
TPRA21.51	.266/.274	.104/.114	.124/.130	1/64

Triangle Negative F5 Chipbreaker With ISO Style Hole



Part No.	Dimensional Specifications				
	i.c.	t	h	c/s	c/b
TNRT1.21.21F5	.170/.176	.088/.094	.084/.090	.119/.125	.024/.030
TNRT1.81.51F5	.238/.244	.106/.112	.095/.101	.127/.133	.029/.035
TNRT1.821F5	.238/.244	.138/.144	.095/.101	.127/.133	.029/.035
TNRT21.51F5	.269/.275	.106/.112	.107/.113	.143/.149	.029/.035
TNRT21.52F5	.269/.275	.106/.112	.107/.113	.143/.149	.029/.035
TNRT221F5	.269/.275	.141/.147	.107/.113	.143/.149	.029/.035
TNRT222F5	.269/.275	.141/.147	.107/.113	.143/.149	.029/.035
TNRT32.51F5	.392/.398	.171/.179	.170/.176	.233/.239	.040/.046
TNRT32.52F5	.392/.398	.171/.179	.170/.176	.233/.239	.040/.046
TNRT32.53F5	.392/.398	.171/.179	.170/.176	.233/.239	.040/.046
TNRT321F5	.392/.398	.140/.148	.170/.176	.233/.239	.040/.046
TNRT332F5	.392/.398	.203/.211	.170/.176	.233/.239	.040/.046
TNRT431F5	.517/.523	.194/.200	.213/.219	.292/.298	.037/.043
TNRT432F5	.517/.523	.194/.200	.213/.219	.292/.298	.037/.043

Triangle Negative With ISO Style Hole



Part No.	Dimensional Specifications				
	i.c.	t	h	c/s	c/b
TNRW1.21.20	.170/.176	.104/.112	.084/.090	.119/.125	.031/.037
TNRW1.21.50	.170/.176	.104/.112	.084/.090	.119/.125	.031/.037
TNRW1.220	.170/.176	.135/.143	.084/.090	.119/.125	.031/.037
TNRW1.81.50	.238/.244	.104/.112	.095/.101	.127/.133	.036/.042
TNRW1.820	.238/.244	.135/.143	.095/.100	.127/.133	.036/.042

TURNING

Ultra-met[®]

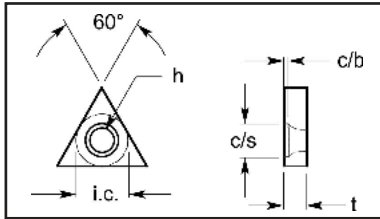
carbide technologies

FABRICATOR & TOOLMAKER
Capabilities Catalog

Triangle Positive

MILLING

Triangle Negative With ISO Style Hole



Part No.	Dimensional Specifications				
	i.c.	t	h	c/s	c/b
TNRW2.520	.327/.333	.135/.143	.131/.137	.174/.180	.028/.034
TNRW090200	.238/.244	.104/.112	.095/.101	.127/.133	.036/.042
TNRW110200	.269/.275	.104/.112	.107/.113	.143/.149	.036/.042
TNRW21.50	.269/.275	.104/.112	.107/.113	.145/.151	.036/.042
TNRW21.70	.265/.270	.114/.120	.108/.112	.160/.164	.030
TNRW220	.269/.275	.135/.143	.107/.113	.145/.151	.036/.042
TNRW32.50	.392/.398	.166/.174	.170/.176	.233/.239	.046/.052
TNRW320	.392/.398	.135/.143	.170/.176	.233/.239	.046/.052
TNRW330	.392/.398	.198/.206	.170/.176	.233/.239	.046/.052
TNRW340	.392/.398	.260/.268	.170/.176	.233/.239	.046/.052
DWG#J401	.454/.460	.251/.259	.214/.220	.296/.302	.039/.045
TNRW43.50	.517/.523	.229/.237	.213/.219	.292/.298	.043/.049
TNRW430	.517/.523	.198/.206	.213/.219	.292/.298	.043/.049
TNRW440	.517/.523	.260/.270	.213/.219	.292/.298	.057/.063

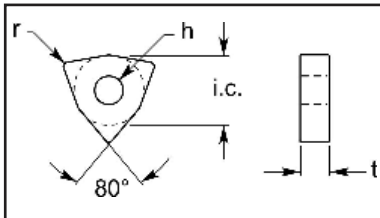
GROOVING

DRILLING

THREADING

Trigons

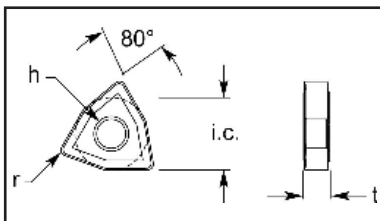
Trigon Negative With Hole • variable thickness quoted on request



Part No.	Dimensional Specifications			
	t	i.c.	h	r
WNRA332	.198/.206	.309/.400	.147/.153	1/32
WNRA432	.198/.206	.520/.530	.200/.206	1/32
WNRA643	.265/.275	.765/.780	0.312	3/64
WNSA322	.132/.138	.372/.378	.147/.153	1/16
WNSA433	.200/.208	.497/.503	.200/.206	3/64
WNSA432	.198/.206	.497/.503	.200/.206	1/32
WNSA648	.265/.275	.745/.755	.307/.317	1/8

BRAZED
BLANKSRECTANGLES
STB

Utility Trigon Negative Chipbreaker With Hole

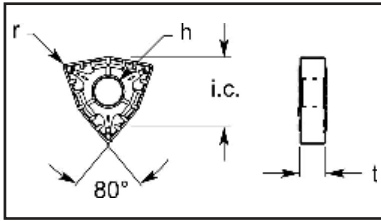


Part No.	Dimensional Specifications			
	t	i.c.	h	r
WNSG322	.132/.138	.372/.378	.147/.153	1/16

WOOD
WORKINGOIL & GAS
MININGMISC.
SHAPES

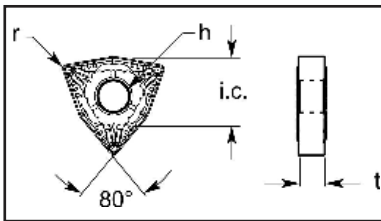
Trigons

Utility Trigon Negative FA Chipbreaker With Hole



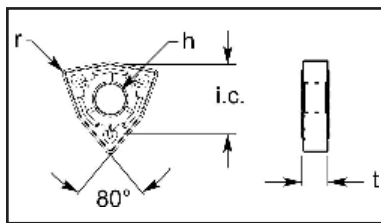
Part No.	Dimensional Specifications			
	t	i.c.	h	r
WNSG432-FA	.196/.202	.497/.503	.200/.206	1/32

Utility Trigon Negative SA Chipbreaker With Hole



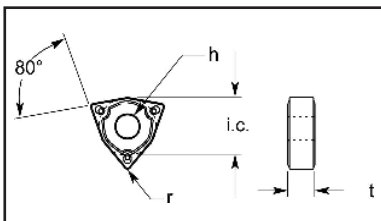
Part No.	Dimensional Specifications			
	t	i.c.	h	r
WNSG432-SA	.196/.202	.497/.503	.200/.206	1/32

Utility Trigon Negative RA Chipbreaker With Hole



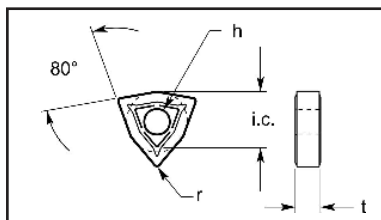
Part No.	Dimensional Specifications			
	t	i.c.	h	r
WNSG432-RA	.196/.202	.497/.503	.200/.206	1/32

Utility Trigon Negative GP3 Chipbreaker With Hole



Part No.	Dimensional Specifications			
	t	i.c.	h	r
WNSG432GP3	.197/.203	.497/.503	.200/.206	1/32

Utility Trigon Negative GP6 Chipbreaker With Hole



Part No.	Dimensional Specifications			
	t	i.c.	h	r
WNSG433GP6	.190/.196	.497/.503	.200/.206	1/32
WNSG443GP6	.252/.257	.497/.503	.201/.205	3/64

TURNING

Ultra-met[®]

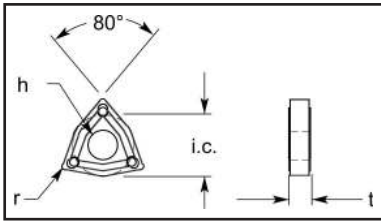
carbide technologies

FABRICATOR & TOOLMAKER
Capabilities Catalog

Trigons

MILLING

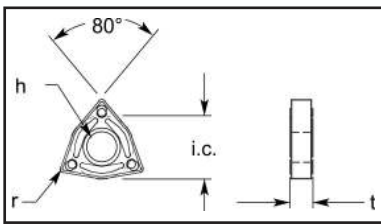
Utility Trigon Negative Chipbreaker With Hole



Part No.	Dimensional Specifications			
	t	i.c.	h	r
WNSZ643	.267/.273	.745/.755	.310/.314	3/64

GROOVING

Trigon Negative Chipbreaker With Hole

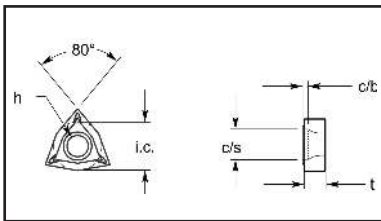


Part No.	Dimensional Specifications			
	t	i.c.	h	r
WNSJ643	.257/.263	.745/.755	.310/.314	3/64

DRILLING

THREADING

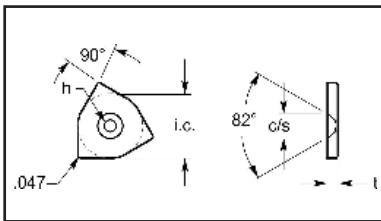
Trigon Negative F5 Chipbreaker With ISO Style Hole



Part No.	Dimensional Specifications					
	t	i.c.	h	c/b	c.b.d.	design for rad.
WNRT1.51.20F5	.094/.100	.201/.207	.082/.088	.111/.117	.017/.023	(1) or smaller
WNRT1.510F5	.078/.084	.201/.207	.082/.088	.111/.117	.017/.023	(1) or smaller
WNRT21.50F5	.109/.115	.264/.270	.107/.113	.143/.149	.029/.035	(1) or smaller
WNRT21.52F5	.109/.115	.264/.270	.107/.113	.143/.149	.029/.035	2

BRAZED
BLANKS

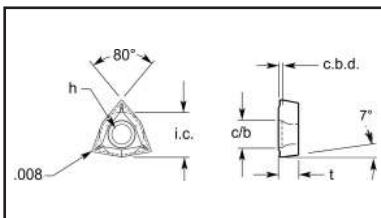
Utility Trigon Negative With Hole and Countersink



Part No.	Dimensional Specifications				
	t	i.c.	r	h	c/s
WSS93CS	.203/.209	1.105/1.125	3/64	.194/.202	.443/.451

RECTANGLES
STBWOOD
WORKING

Trigon Positive With Chipbreaker And ISO Hole

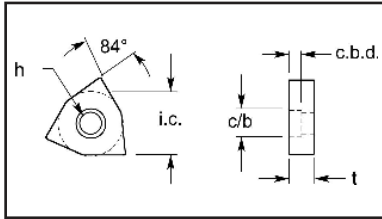


Part No.	Dimensional Specifications					
	t	i.c.	h	c/b	c.b.d.	design for rad.
WCRT32.50F5	.173/.179	.387/.393	.170/.176	.233/.239	.029/.035	(1) or smaller
WCRT32.51F5	.173/.179	.387/.393	.170/.176	.233/.239	.029/.035	1
WCRT32.52F5	.173/.179	.387/.393	.170/.176	.233/.239	.029/.035	2

OIL & GAS
MININGMISC.
SHAPES

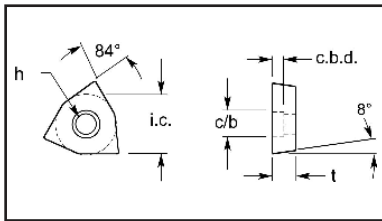
Trigons

Trigon Negative With Hole And Countersink



Part No.	Dimensional Specifications					
	t	i.c.	h	c/b	c.b.d.	r
DWG#OUT177	.129/.135	.407/.410	.147/.151	.210/.214	.061	0
DWG#U-5317	.128/.136	.327/.333	.104/.108	.142/.146	.061	.008
P01800.150T	.161/.167	.407/.413	.147/.151	.210/.214	.061	0
P018002	.129/.135	.407/.413	.147/.151	.210/.214	.061	0
P02800	.135/.143	.327/.333	.098/.110	.137/.149	.070	.008

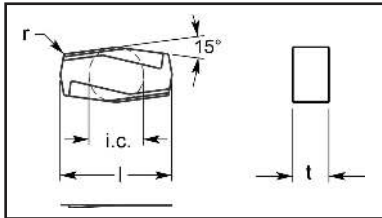
Trigon Positive With Hole And Countersink



Part No.	Dimensional Specifications					
	t	i.c.	h	c/b	c.b.d.	r
P1-800	.160/.165	.486/.492	.183/.187	.241/.247	.057	0

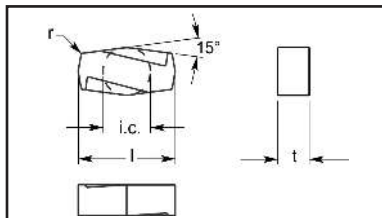
Heavy Duty

Bar Peeling



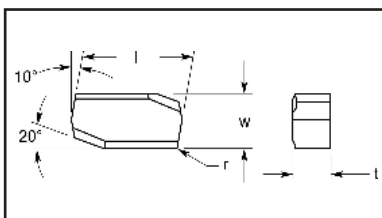
- variable thickness quoted on request

Part No.	Dimensional Specifications			
	t	i.c.	l	r
DWG#U5227	.487/.497	.704/.714	1.447/1.467	1/32



- variable thickness quoted on request

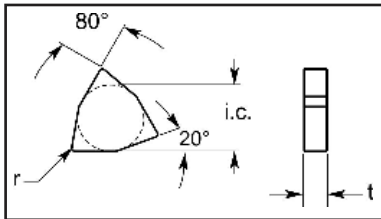
Part No.	Dimensional Specifications			
	t	i.c.	l	r
ZNSX181215L	.487/.497	.704/.714	1.447/1.467	1/32
XNMX25799	.484/.490	.717/.723	1.437/1.443	1/32



- variable thickness quoted on request

Part No.	Dimensional Specifications			
	t	w	l	r
25553 MOD C	.469/.475	.710/.720	1.430/1.444	.010

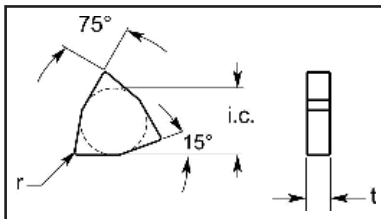
Trigon Negative



- variable thickness quoted on request

Part No.	Dimensional Specifications		
	t	i.c.	r
WNR642	.260/.268	.764/.770	.034
* WNS643	.260/.268	.747/.753	3/64

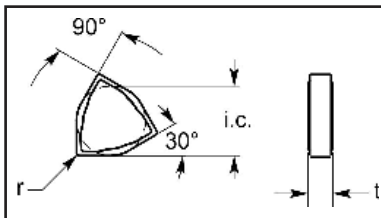
- * No grind stock on periphery



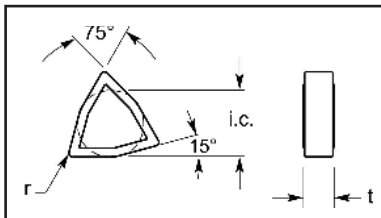
- variable thickness quoted on request

Part No.	Dimensional Specifications		
	t	i.c.	r
WNS-96	.370/.380	1.120/1.130	3/64

Utility Trigon Negative Chipbreaker

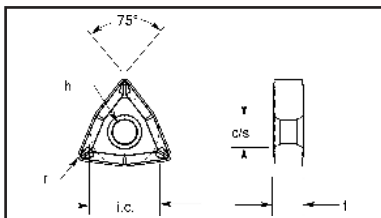


Part No.	Dimensional Specifications		
	t	i.c.	r
WNMF96EW	.385/.395	1.120/1.130	3/64
WNSF-96	.390/.400	1.120/1.130	3/64
WNSF-96EW	.390/.400	1.120/1.130	3/64
WNSF96	.385/.395	1.120/1.130	3/64
WNSF96-UNG	.387/.393	1.120/1.130	3/64



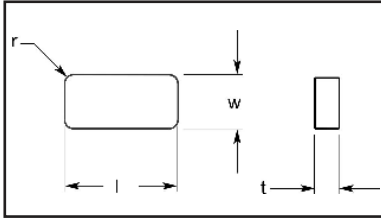
Part No.	Dimensional Specifications		
	t	i.c.	r
WNSP76	.403/.413	.870/.880	3/64

Trigon Negative With Chipbreaker And Hole



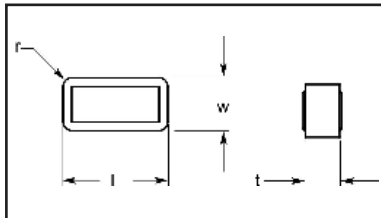
Part No.	Dimensional Specifications				
	t	i.c.	r	h	c/s
WNRX764BMOD	.389/.399	.890/.900	.072	.318/.324	.439/.445

Utility Railroad Heavy Turning • variable thickness quoted on request



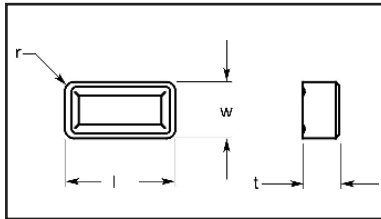
Part No.	Dimensional Specifications			
	t	w	l	r
LNS4444	.264/.270	.514/.524	1.014/1.034	1/16
LNS5444	.265/.270	.643/.657	1.015/1.035	1/16
LNS5464	.390/.395	.643/.657	1.015/1.035	1/16
LNS510128	.765/.775	.630/.640	2.615/2.645	1/8
LNS510128(12)	.765/.775	.630/.640	2.615/2.645	1/8
LNS68812T060-10	.515/.525	.768/.782	2.020/2.040	3/16
LNS688T060-10	.515/.525	.768/.782	1.515/1.535	1/8
LNS6888-SHIM	.506/.514	.744/.758	1.485/1.505	1/8
LNS6888	.515/.525	.768/.782	1.515/1.535	1/8

• variable thickness quoted on request



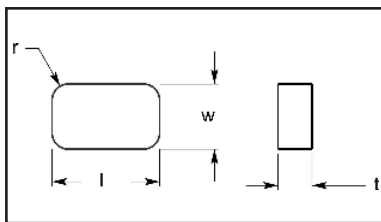
Part No.	Dimensional Specifications			
	t	w	l	r
LNSF68812	.525/.535	.768/.775	2.020/2.040	3/16
LNSF6688	.525/.535	.768/.775	1.515/1.535	1/8
LNSF6688-1C/B	.525/.535	.768/.775	1.515/1.535	1/8
LNSF6688GE	.510/.520	.775/.785	1.525/1.535	1/8

• variable thickness quoted on request



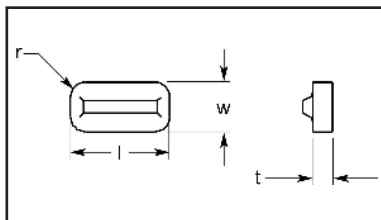
Part No.	Dimensional Specifications			
	t	w	l	r
LNSM6688	.507/.513	.768/.775	1.515/1.535	1/8

• variable thickness quoted on request

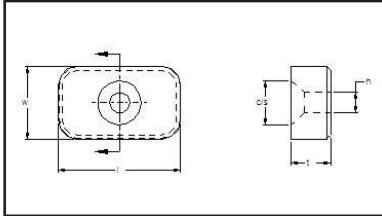


Part No.	Dimensional Specifications			
	t	w	l	r
URR12K	.390/.400	.743/.757	1.238/1.262	3/16
URR6566-MOD	.505/.511	.743/.757	1.238/1.262	3/16

• variable thickness quoted on request

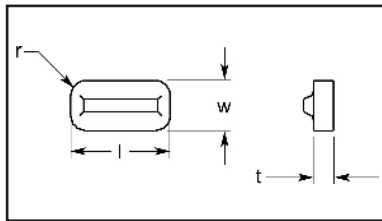


Part No.	Dimensional Specifications			
	t	w	l	r
URRC55412	.365/.371	.622/.628	1.247/1.253	3/16
URRC551012	.616/.622	.622/.628	1.247/1.253	3/16

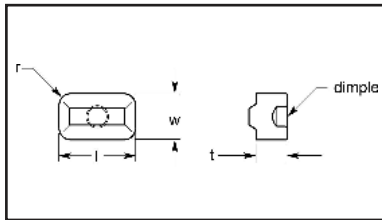


Part No.	Dimensional Specifications				
	t	w	l	h	c/s
RRSH65812-SHIM	.390/.400	.723/.733	1.215/1.235	.201/.211	.438/.448

Utility Railroad Heavy Turning • variable thickness quoted on request

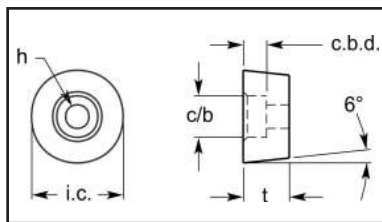


Part No.	Dimensional Specifications			
	t	w	l	r
URRCH65612W/O-HOLE	.449/.455	.743/.757	1.247/1.253	3/16
URRCH651012UM	.618/.624	.745/.755	1.247/1.253	3/16

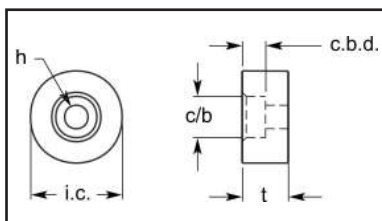


Part No.	Dimensional Specifications				
	t	w	l	r	dimple
1078	.495/.505	.745/.755	1.245/1.255	3/16	.312 dia. X .250 deep

Railroad Heavy Turning

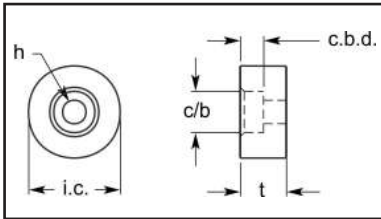


Part No.	Dimensional Specifications				
	t	i.c.	h	c/b	cbd
UCDH42	.517/.523	1.020/1.030	.266/.272	.399/.405	.259/.265

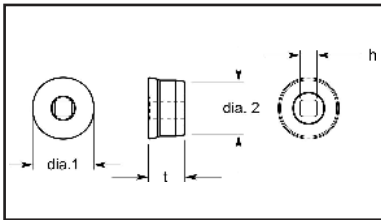


Part No.	Dimensional Specifications				
	t	i.c.	h	c/b	cbd
UCDH42-NEG	.517/.523	1.020/1.030	.266/.272	.399/.405	.259/.265
UCDH43-NEG	.767/.773	1.020/1.030	.266/.272	.399/.405	.509/.515
UCDH53-NEG	.767/.773	1.270/1.280	.390/.396	.587/.593	.382/.388

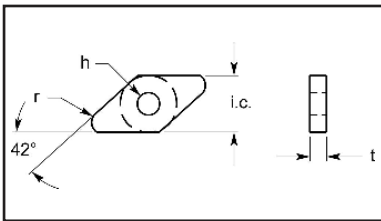
Railroad Heavy Turning



Part No.	Dimensional Specifications				
	t	i.c.	h	c/b	cbd
UFDH33-NEG	.389/.395	.764/.770	.252/.258	.387/.393	.194/.200
UFDH44-NEG	.514/.520	1.025/1.030	.312/.315	.457/.463	.259/.265

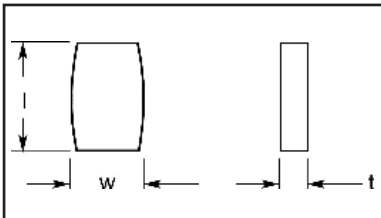


Part No.	Dimensional Specifications			
	t	h	dia1	dia2
WTT-10	.372/.378	.171/.175	.625/.630	.5395/.5445



- variable thickness quoted on request

Part No.	Dimensional Specifications			
	t	i.c.	h	r
UJA5A	.198/.206	.649/.655	.248/.252	.120



- variable thickness quoted on request

Part No.	Dimensional Specifications		
	t	w	l
BP2971REVB	.198/.206	.515/.520	.764/.770

TURNING

MILLING

GROOVING

DRILLING

THREADING

BRAZED
BLANKS

RECTANGLES
STB

WOOD
WORKING

OIL & GAS
MINING

MISC.
SHAPES

Diamond Negative



1000 Series

TURNING

MILLING

GROOVING

DRILLING

THREADING

BRAZED
BLANKS

RECTANGLES
STB

WOOD
WORKING

OIL & GAS
MINING

MISC.
SHAPES

TURNING

MILLING

GROOVING

DRILLING

THREADING

**BRAZED
BLANKS**

**RECTANGLES
STB**

**WOOD
WORKING**

**OIL & GAS
MINING**

**MISC.
SHAPES**

1000 Series

TURNING

MILLING

GROOVING

DRILLING

THREADING

**BRAZED
BLANKS**

**RECTANGLES
STB**

**WOOD
WORKING**

**OIL & GAS
MINING**

**MISC.
SHAPES**

TURNING

MILLING

GROOVING

DRILLING

THREADING

BRAZED
BLANKS

RECTANGLES
STB

WOOD
WORKING

OIL & GAS
MINING

MISC.
SHAPES

1000 Series

TURNING

MILLING

GROOVING

DRILLING

THREADING

**BRAZED
BLANKS**

**RECTANGLES
STB**

**WOOD
WORKING**

**OIL & GAS
MINING**

**MISC.
SHAPES**

TURNING

MILLING

GROOVING

DRILLING

THREADING

BRAZED
BLANKS

RECTANGLES
STB

WOOD
WORKING

OIL & GAS
MINING

MISC.
SHAPES