

# Threading

Inserts

General turning

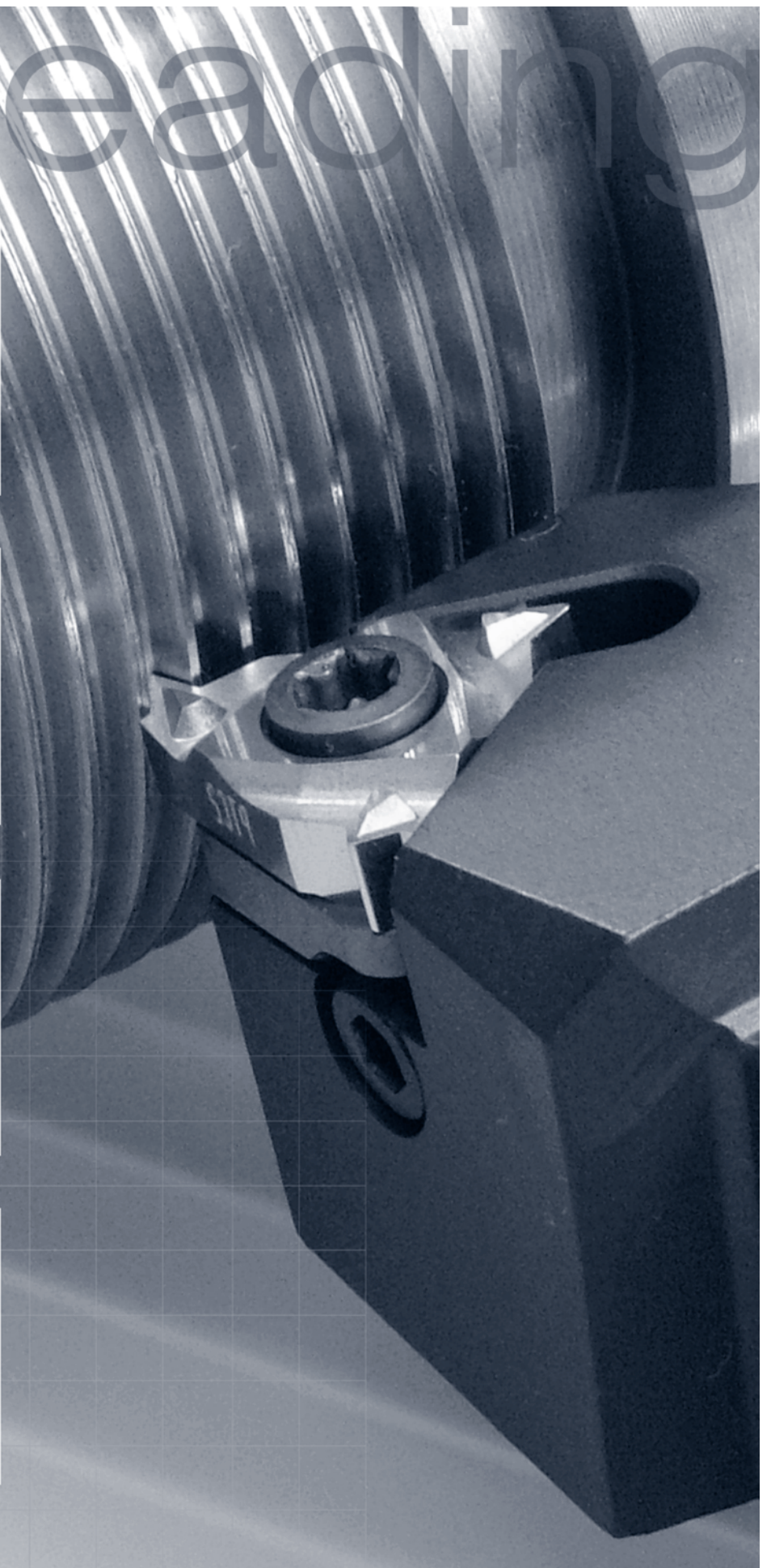
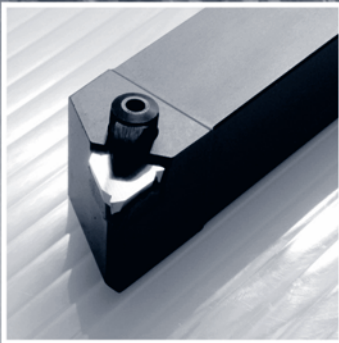
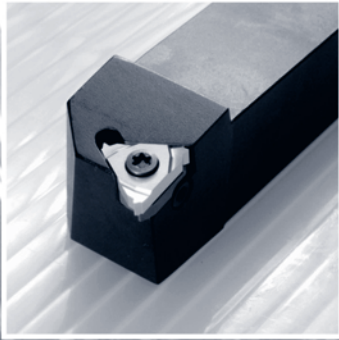
Aluminium wheel turning

Automatic lathes

Ceramic tools

Parting and grooving

Threading



# Threading

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Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

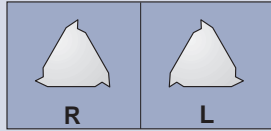
Parting and grooving

Threading

**L 166 G - 3 B A 075**

**1 2 3 4 5 6 7**

**1**



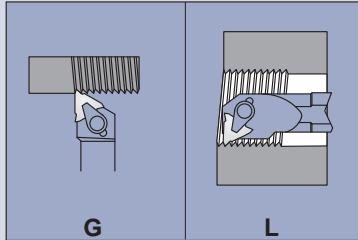
**2**



**4**

	IC=Inch	D=mm.	
	<b>2</b>	1/4	6,35 11
	<b>3</b>	3/8	9,52 16
	<b>4</b>	1/2	12,70 22

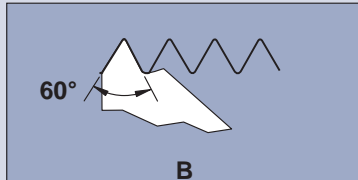
**3**



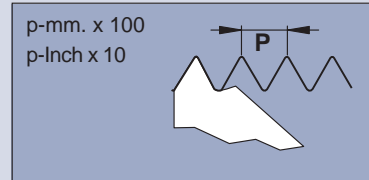
**6**

<b>A</b>	ISO mm.
<b>C</b>	SI
<b>L</b>	ISO Inch
<b>K</b>	Whitworth

**5**



**7**



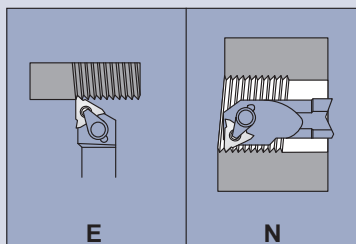
**16 E L - AG 55**

**1 2 3 4 5**

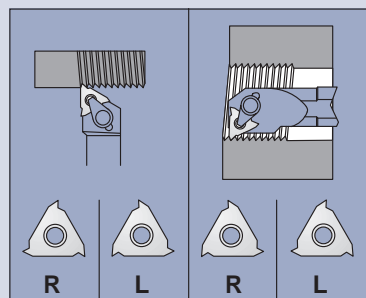
**1**

	IC=Inch	d=mm.
	<b>06</b>	5/32 3,96
	<b>08</b>	3/16 4,76
	<b>11</b>	1/4 6,35
	<b>16</b>	3/8 9,52
	<b>22</b>	1/2 12,70
	<b>27</b>	5/8 15,87

**2**



**3**






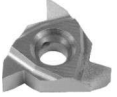


**4**

	mm.	TPI
	p=mm. x 100 p=Inch x 10	
<b>A</b>	0,5-1,5	48-16
<b>AG</b>	0,5-3,0	48-8
<b>G</b>	1,75-3,0	14-8
<b>N</b>	3,5-5,0	7-5

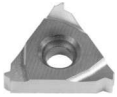
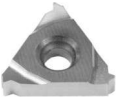


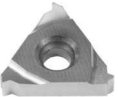
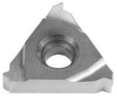

**5**

<b>55</b>	Partial profile 55°
<b>60</b>	Partial profile 60°
<b>ISO</b>	ISO metric
<b>UN</b>	American, UN
<b>W</b>	Whitworth, BSW
<b>LG</b>	Groove type LG

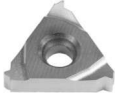
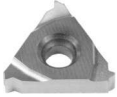
60° - 55° (non topping)

<p><b>ER-60°/55°</b></p>  <p>Triangular Negative Page H.04 <input type="checkbox"/> 0°</p>	<p><b>EL-60°/55°</b></p>  <p>Triangular Negative Page H.04 <input type="checkbox"/> 0°</p>	<p><b>ER-60°/55° TD</b></p>  <p>Triangular Negative Page H.04 <input type="checkbox"/> 0°</p>	<p><b>NR-60°/55°</b></p>  <p>Triangular Negative Page H.05 <input type="checkbox"/> 0°</p>	<p><b>NL-60°/55°</b></p>  <p>Triangular Negative Page H.05 <input type="checkbox"/> 0°</p>	<p><b>NR-60°/55° TD</b></p>  <p>Triangular Negative Page H.05 <input type="checkbox"/> 0°</p>	
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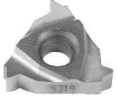


ISO (full form) BS36

<p><b>ER-ISO</b></p>  <p>Triangular Negative Page H.06 <input type="checkbox"/> 0°</p>	<p><b>EL-ISO</b></p>  <p>Triangular Negative Page H.06 <input type="checkbox"/> 0°</p>	<p><b>ER-ISO TD</b></p>  <p>Triangular Negative Page H.06 <input type="checkbox"/> 0°</p>	<p><b>EL-ISO TD</b></p>  <p>Triangular Negative Page H.06 <input type="checkbox"/> 0°</p>	<p><b>NR-ISO</b></p>  <p>Triangular Negative Page H.07 <input type="checkbox"/> 0°</p>	<p><b>NL-ISO</b></p>  <p>Triangular Negative Page H.07 <input type="checkbox"/> 0°</p>	<p><b>NR-ISO TD</b></p>  <p>Triangular Negative Page H.07 <input type="checkbox"/> 0°</p>
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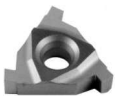
UNIFIED (full form) ASME / ANSI B1.1

<p><b>ER-UN</b></p>  <p>Triangular Negative Page H.08 <input type="checkbox"/> 0°</p>	<p><b>NR-UN</b></p>  <p>Triangular Negative Page H.08 <input type="checkbox"/> 0°</p>					
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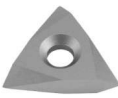
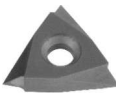
WHITWORTH (full form) BS84

<p><b>ER-W</b></p>  <p>Triangular Negative Page H.08 <input type="checkbox"/> 0°</p>	<p><b>EL-W</b></p>  <p>Triangular Negative Page H.08 <input type="checkbox"/> 0°</p>	<p><b>ER-W TD</b></p>  <p>Triangular Negative Page H.08 <input type="checkbox"/> 0°</p>	<p><b>NR-W</b></p>  <p>Triangular Negative Page H.09 <input type="checkbox"/> 0°</p>	<p><b>NL-W</b></p>  <p>Triangular Negative Page H.09 <input type="checkbox"/> 0°</p>	<p><b>NR-W TD</b></p>  <p>Triangular Negative Page H.09 <input type="checkbox"/> 0°</p>	
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Lock ring groove inserts type LG

<p><b>ER-LG</b></p>  <p>Triangular Negative Page H.10 <input type="checkbox"/> 0°</p>	<p><b>EL-LG</b></p>  <p>Triangular Negative Page H.10 <input type="checkbox"/> 0°</p>	
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Others

<p><b>TNMC</b></p>  <p>Triangular Negative Page H.10 <input type="checkbox"/> 0°</p>	<p><b>TPMC</b></p>  <p>Triangular Negative Page H.10 <input type="checkbox"/> 0°</p>	
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ISO

<p><b>L166G-ISO</b></p>  <p>Triangular Positive Page H.11 <input type="checkbox"/> 7°</p>	<p><b>R166G-ISO</b></p>  <p>Triangular Positive Page H.11 <input type="checkbox"/> 7°</p>	<p><b>R166G-B</b></p>  <p>Triangular Positive Page H.11 <input type="checkbox"/> 7°</p>	<p><b>L166L-ISO</b></p>  <p>Triangular Positive Page H.11 <input type="checkbox"/> 7°</p>	<p><b>R166L-ISO</b></p>  <p>Triangular Positive Page H.11 <input type="checkbox"/> 7°</p>		
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Partial profile thread forms - External inserts  
60° - 55° (non topping)

Normally available for immediate delivery ●

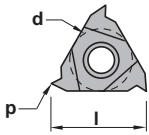
Only available in a limited quantity ○



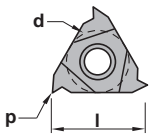
ER



ER TD



ER



EL

### ER-60°

	l	d	p	KM15	PM25	TIN25	TL20
11ER-A60	11,00	6,35	60°			○	
16ER-A60	16,00	9,52	60°			○	
16ER-AG60	16,00	9,52	60°		●	●	○
16ER-G60	16,00	9,52	60°			●	○
22ER-N60	22,00	12,70	60°			●	○
27ER-S60	27,00	15,87	60°			○	

### EL-60°

	l	d	p	KM15	PM25	TIN25	TL20
11EL-A60	11,00	6,35	60°			○	
16EL-A60	16,00	9,52	60°			○	
16EL-AG60	16,00	9,52	60°			○	
16EL-G60	16,00	9,52	60°			○	
22EL-N60	22,00	12,70	60°			○	
27EL-S60	27,00	15,87	60°			○	

### ER-55°

	l	d	p	KM15	PM25	TIN25	TL20
11ER-A55	11,00	6,35	55°			○	
16ER-A55	16,00	9,52	55°			○	
16ER-AG55	16,00	9,52	55°		●	●	○
16ER-G55	16,00	9,52	55°			○	
22ER-N55	22,00	12,70	55°			○	
27ER-S55	27,00	15,87	55°			○	

### EL-55°

	l	d	p	KM15	PM25	TIN25	TL20
11EL-A55	11,00	6,35	55°			○	
16EL-A55	16,00	9,52	55°			○	
16EL-AG55	16,00	9,52	55°			○	
16EL-G55	16,00	9,52	55°			○	
22EL-N55	22,00	12,70	55°			○	
27EL-S55	27,00	15,87	55°			○	

### ER-60° TD

	l	d	p	KM15	PM25	TIN25	TL20
16ER-A60 TD	16,00	9,52	60°			○	
16ER-AG60 TD	16,00	9,52	60°			●	○
16ER-G60 TD	16,00	9,52	60°			○	

### ER-55° TD

	l	d	p	KM15	PM25	TIN25	TL20
16ER-A55TD	16,00	9,52	55°			○	
16ER-AG55 TD	16,00	9,52	55°			●	○
16ER-G55 TD	16,00	9,52	55°			○	

Inserts

General turning

Aluminum wheel turning

Automatic lathes

Ceramic tools

Parting and grooving

Threading



Partial profile thread forms - Internal inserts  
60° - 55° (non topping)

Normally available for immediate delivery ●

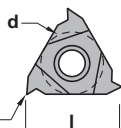
Only available in a limited quantity ○



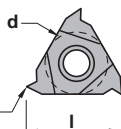
NR



NR TD



NR



NL

### NR-60°

	l	d	p	KM15	PM25	TIN25	TL20
06NR-A60	6,00	3,96	60°			○	
08NR-A60	8,00	4,76	60°			○	
11NR-A60	11,00	6,35	60°			●	○
16NR-A60	16,00	9,52	60°			○	
16NR-AG60	16,00	9,52	60°		●	○	○
16NR-G60	16,00	9,52	60°			○	
22NR-N60	22,00	12,70	60°			●	○
27NR-S60	27,00	15,87	60°			○	

### NL-60°

	l	d	p	KM15	PM25	TIN25	TL20
06NL-A60	6,00	3,96	60°			○	
08NL-A60	8,00	4,76	60°			○	
11NL-A60	11,00	6,35	60°			○	
16NL-A60	16,00	9,52	60°			○	
16NL-AG60	16,00	9,52	60°			○	
16NL-G60	16,00	9,52	60°			○	
22NL-N60	22,00	12,70	60°			○	
27NL-S60	27,00	15,87	60°			○	

### NR-55°

	l	d	p	KM15	PM25	TIN25	TL20
06NR-A55	6,00	3,96	55°			○	
08NR-A55	8,00	4,76	55°			○	
11NR-A55	11,00	6,35	55°			○	
16NR-A55	16,00	9,52	55°			○	
16NR-AG55	16,00	9,52	55°			●	○
16NR-G55	16,00	9,52	55°			●	
22NR-N55	22,00	12,70	55°			○	
27NR-S55	27,00	15,87	55°			○	

### NL-55°

	l	d	p	KM15	PM25	TIN25	TL20
06NL-A55	6,00	3,96	55°				
08NL-A55	8,00	4,76	55°				
11NL-A55	11,00	6,35	55°			○	
16NL-A55	16,00	9,52	55°			○	
16NL-AG55	16,00	9,52	55°			○	
16NL-G55	16,00	9,52	55°			○	
22NL-N55	22,00	12,70	55°			○	
27NL-S55	27,00	15,87	55°				

### NR-60° TD

	l	d	p	KM15	PM25	TIN25	TL20
16NR-A60 TD	16,00	9,52	60°			○	
16NR-AG60 TD	16,00	9,52	60°			●	○
16NR-G60 TD	16,00	9,52	60°			○	

### NR-55° TD

	l	d	p	KM15	PM25	TIN25	TL20
16NR-A55TD	16,00	9,52	55°			○	
16NR-AG55 TD	16,00	9,52	55°			●	○
16NR-G55 TD	16,00	9,52	55°			○	

Threading

Drills

Cartridges

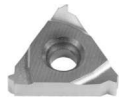
Brazed tools

Tooling

Inserts  
 General turning  
 Aluminium wheel turning  
 Automatic lathes  
 Ceramic tools  
 Parting and grooving  
 Threading

Mechanical thread forms - External inserts  
 ISO (full form) BS36

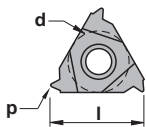
Normally available for immediate delivery ●  
 Only available in a limited quantity ○



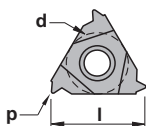
ER ISO



ER ISO TD



ER



EL

### ER-ISO

	l	d	p	KM15	PM25	TIN25	TL20
11ER-030ISO	11,00	6,35	0,30			○	
11ER-040ISO	11,00	6,35	0,40			○	
11ER-045ISO	11,00	6,35	0,45			○	
11ER-050ISO	11,00	6,35	0,50			○	
11ER-060ISO	11,00	6,35	0,60			○	
11ER-070ISO	11,00	6,35	0,70			○	
11ER-075ISO	11,00	6,35	0,75			○	
11ER-080ISO	11,00	6,35	0,80			○	
11ER-100ISO	11,00	6,35	1,00			○	
11ER-125ISO	11,00	6,35	1,25			○	
11ER-150ISO	11,00	6,35	1,50			○	
11ER-175ISO	11,00	6,35	1,75			○	
16ER-075ISO	16,00	9,52	0,75			○	
16ER-100ISO	16,00	9,52	1,00			○	
16ER-125ISO	16,00	9,52	1,25			○	
16ER-150ISO	16,00	9,52	1,50			○	
16ER-175ISO	16,00	9,52	1,75			○	
16ER-200ISO	16,00	9,52	2,00			○	
16ER-250ISO	16,00	9,52	2,50			○	
16ER-300ISO	16,00	9,52	3,00			○	
22ER-350ISO	22,00	12,70	3,50			○	
22ER-400ISO	22,00	12,70	4,00			○	
22ER-450ISO	22,00	12,70	4,50			○	
22ER-500ISO	22,00	12,70	5,00			○	
27ER-500ISO	27,00	15,87	5,00			○	
27ER-550ISO	27,00	15,87	5,50			○	
27ER-600ISO	27,00	15,87	6,00			○	
27ER-800ISO	27,00	15,87	8,00			○	

### EL-ISO

	l	d	p	KM15	PM25	TIN25	TL20
16EL-100ISO	16,00	9,52	1,00			○	
16EL-125ISO	16,00	9,52	1,25			○	
16EL-150ISO	16,00	9,52	1,50			○	
16EL-175ISO	16,00	9,52	1,75			○	
16EL-200ISO	16,00	9,52	2,00			○	
16EL-250ISO	16,00	9,52	2,50			○	
16EL-300ISO	16,00	9,52	3,00			○	
22EL-400ISO	22,00	12,70	4,00			○	

### ER-ISO TD

	l	d	p	KM15	PM25	TIN25	TL20
16ER-100ISO TD	16,50	9,52	1,00			○	
16ER-125ISO TD	16,50	9,52	1,25			○	
16ER-150ISO TD	16,50	9,52	1,50			○	
16ER-175ISO TD	16,50	9,52	1,75			○	
16ER-200ISO TD	16,50	9,52	2,00			○	
16ER-250ISO TD	16,50	9,52	2,50			○	
16ER-300ISO TD	16,50	9,52	3,00			○	

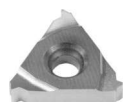
### EL-ISO TD

	l	d	p	KM15	PM25	TIN25	TL20
16EL-100ISO TD	16,50	9,52	1,00			○	
16EL-125ISO TD	16,50	9,52	1,25			○	
16EL-150ISO TD	16,50	9,52	1,50			○	
16EL-175ISO TD	16,50	9,52	1,75			○	
16EL-200ISO TD	16,50	9,52	2,00			○	
16EL-250ISO TD	16,50	9,52	2,50			○	
16EL-300ISO TD	16,50	9,52	3,00			○	

Mechanical thread forms - Internal inserts  
ISO (full form) BS36

Normally available for immediate delivery ●

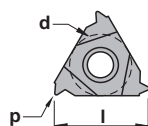
Only available in a limited quantity ○



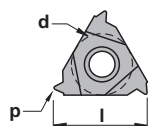
NR ISO



NR ISO TD



NR



NL

### NR-ISO

	l	d	p	KM15	PM25	TIN25	TL20
06NR-050ISO	6,00	3,96	0,50			○	
06NR-075ISO	6,00	3,96	0,75			○	
06NR-100ISO	6,00	3,96	1,00			○	
06NR-125ISO	6,00	3,96	1,25			○	
08NR-050ISO	8,00	4,76	0,50			○	
08NR-075ISO	8,00	4,76	0,75			○	
08NR-100ISO	8,00	4,76	1,00			○	
08NR-125ISO	8,00	4,76	1,25			○	
08NR-150ISO	8,00	4,76	1,50			○	
08NR-175ISO	8,00	4,76	1,75			○	
11NR-035ISO	11,00	6,35	0,35			○	
11NR-040ISO	11,00	6,35	0,40			○	
11NR-045ISO	11,00	6,35	0,45			○	
11NR-050ISO	11,00	6,35	0,50			○	
11NR-060ISO	11,00	6,35	0,60			○	
11NR-070ISO	11,00	6,35	0,70			○	
11NR-075ISO	11,00	6,35	0,75			○	
11NR-080ISO	11,00	6,35	0,80			○	
11NR-100ISO	11,00	6,35	1,00			○	
11NR-125ISO	11,00	6,35	1,25			○	
11NR-150ISO	11,00	6,35	1,50			○	
11NR-175ISO	11,00	6,35	1,75			○	
11NR-200ISO	11,00	6,35	2,00			○	
11NR-250ISO	11,00	6,35	2,50			○	
16NR-075ISO	16,00	9,52	0,75			○	
16NR-100ISO	16,00	9,52	1,00			○	
16NR-125ISO	16,00	9,52	1,25			○	
16NR-150ISO	16,00	9,52	1,50			○	
16NR-175ISO	16,00	9,52	1,75			○	
16NR-200ISO	16,00	9,52	2,00			○	
16NR-250ISO	16,00	9,52	2,50			○	
16NR-300ISO	16,00	9,52	3,00			○	
22NR-350ISO	22,00	12,70	3,50			○	
22NR-400ISO	22,00	12,70	4,00			○	
22NR-450ISO	22,00	12,70	4,50			○	
22NR-500ISO	22,00	12,70	5,00			○	
27NR-500ISO	27,00	15,87	5,00			○	
27NR-550ISO	27,00	15,87	5,50			○	
27NR-600ISO	27,00	15,87	6,00			○	
27NR-800ISO	27,00	15,87	8,00			○	

### NL-ISO

	l	d	p	KM15	PM25	TIN25	TL20
06NL-050ISO	6,00	3,96	0,50			○	
06NL-075ISO	6,00	3,96	0,75			○	
06NL-100ISO	6,00	3,96	1,00			○	
06NL-125ISO	6,00	3,96	1,25			○	
08NL-050ISO	8,00	4,76	0,50			○	
08NL-075ISO	8,00	4,76	0,75			○	
08NL-100ISO	8,00	4,76	1,00			○	
08NL-125ISO	8,00	4,76	1,25			○	
08NL-150ISO	8,00	4,76	1,50			○	
08NL-175ISO	8,00	4,76	1,75			○	
11NL-100ISO	11,00	6,35	1,00			○	
11NL-150ISO	11,00	6,35	1,50			○	
16NL-100ISO	16,00	9,52	1,00			○	
16NL-125ISO	16,00	9,52	1,25			○	
16NL-150ISO	16,00	9,52	1,50			○	
16NL-175ISO	16,00	9,52	1,75			○	
16NL-200ISO	16,00	9,52	2,00			○	
16NL-250ISO	16,00	9,52	2,50			○	
16NL-300ISO	16,00	9,52	3,00			○	
22NL-400ISO	22,00	12,70	4,00			○	

### NR-ISO TD

	l	d	p	KM15	PM25	TIN25	TL20
16NR-100ISO TD	16,50	9,52	1,00			●	
16NR-125ISO TD	16,50	9,52	1,25			●	
16NR-150ISO TD	16,50	9,52	1,50			●	
16NR-175ISO TD	16,50	9,52	1,75			●	
16NR-200ISO TD	16,50	9,52	2,00			●	
16NR-250ISO TD	16,50	9,52	2,50			●	
16NR-300ISO TD	16,50	9,52	3,00			●	

Threading

Drills

Cartridges

Brazed tools

Tooling



Inserts

General turning

Aluminium wheel turning

Automatic lathes

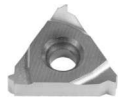
Ceramic tools

Parting and grooving

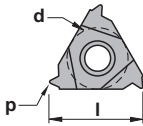
Threading

Mechanical thread forms - External and internal inserts  
 UNIFIED (full form) ASME/ANSI B1.1

Normally available for immediate delivery ●  
 Only available in a limited quantity ○



ER UN



ER

### ER-UN

	l	d	p	KM15	PM25	TIN25	TL20
16ER-11UN	16,00	9,52	11,0			○	
16ER-14UN	16,00	9,52	14,0			○	
16ER-18UN	16,00	9,52	18,0			○	

### NR-UN

	l	d	p	KM15	PM25	TIN25	TL20
16NR-20UN	16,00	9,52	20,0			○	
16NR-24UN	16,00	9,52	24,0			○	

Mechanical thread forms - External and internal inserts  
 WHITWORTH (full form) BS84

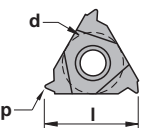
Normally available for immediate delivery ●  
 Only available in a limited quantity ○



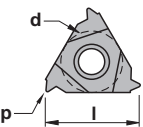
ER-W



ER-W TD



ER



EL

### ER-W

	l	d	p	KM15	PM25	TIN25	TL20
11ER-14W	11,00	6,35	14,0			○	
11ER-16W	11,00	6,35	16,0			○	
11ER-18W	11,00	6,35	18,0			○	
11ER-19W	11,00	6,35	19,0			○	
11ER-22W	11,00	6,35	22,0			○	
11ER-24W	11,00	6,35	24,0			○	
11ER-26W	11,00	6,35	26,0			○	
11ER-28W	11,00	6,35	28,0			○	
11ER-40W	11,00	6,35	40,0			○	
11ER-50W	11,00	6,35	50,0			○	
11ER-56W	11,00	6,35	56,0			○	
16ER-8W	16,00	9,52	8,0			○	
16ER-9W	16,00	9,52	9,0			○	
16ER-10W	16,00	9,52	10,0			○	
16ER-11W	16,00	9,52	11,0			○	
16ER-12W	16,00	9,52	12,0			○	
16ER-14W	16,00	9,52	14,0			○	
16ER-16W	16,00	9,52	16,0			○	
16ER-18W	16,00	9,52	18,0			○	
16ER-19W	16,00	9,52	19,0			○	
16ER-20W	16,00	9,52	20,0			○	
16ER-22W	16,00	9,52	22,0			○	
16ER-24W	16,00	9,52	24,0			○	
16ER-26W	16,00	9,52	26,0			○	
16ER-28W	16,00	9,52	28,0			○	
22ER-4W	22,00	12,70	4,0			○	
22ER-4.5W	22,00	12,70	4,5			○	
22ER-5W	22,00	12,70	5,0			○	
22ER-6W	22,00	12,70	6,0			○	
22ER-7W	22,00	12,70	7,0			○	
22ER-8W	22,00	12,70	8,0			○	
27ER-4W	27,00	15,87	4,0			○	
27ER-4.5W	27,00	15,87	4,5			○	

### EL-W

	l	d	p	KM15	PM25	TIN25	TL20
16EL-11W	16,00	9,52	11,0			○	
16EL-14W	16,00	9,52	14,0			○	
16EL-20W	16,00	9,52	20,0			○	

### ER-W TD

	l	d	p	KM15	PM25	TIN25	TL20
16ER-11W TD	16,50	9,52	11,0			○	
16ER-14W TD	16,50	9,52	14,0			○	
16ER-16W TD	16,50	9,52	16,0			○	

Mechanical thread forms - Internal inserts  
WHITWORTH (full form) BS84

Normally available for immediate delivery ●

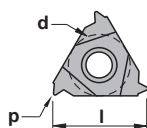
Only available in a limited quantity ○



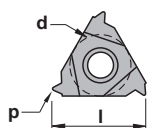
NR-W



NR-W TD



NR



NL

**NR-W**

	l	d	p	KM15	PM25	TIN25	TL20
06NR-18W	6,00	3,96	18,0			○	
06NR-19W	6,00	3,96	19,0			○	
06NR-20W	6,00	3,96	20,0			○	
06NR-22W	6,00	3,96	22,0			○	
06NR-26W	6,00	3,96	26,0			○	
08NR-16W	8,00	4,76	16,0			○	
08NR-18W	8,00	4,76	18,0			○	
08NR-19W	8,00	4,76	19,0			○	
08NR-20W	8,00	4,76	20,0			○	
08NR-24W	8,00	4,76	24,0			○	
08NR-28W	8,00	4,76	28,0			○	
11NR-11W	11,00	6,35	11,0			○	
11NR-12W	11,00	6,35	12,0			○	
11NR-14W	11,00	6,35	14,0			○	
11NR-16W	11,00	6,35	16,0			○	
11NR-18W	11,00	6,35	18,0			○	
11NR-19W	11,00	6,35	19,0			○	
11NR-20W	11,00	6,35	20,0			○	
11NR-22W	11,00	6,35	22,0			○	
11NR-24W	11,00	6,35	24,0			○	
11NR-26W	11,00	6,35	26,0			○	
11NR-28W	11,00	6,35	28,0			○	
11NR-32W	11,00	6,35	32,0			○	
11NR-36W	11,00	6,35	36,0			○	
11NR-40W	11,00	6,35	40,0			○	
11NR-48W	11,00	6,35	48,0			○	
16NR-8W	16,00	9,52	8,0			○	
16NR-9W	16,00	9,52	9,0			○	
16NR-10W	16,00	9,52	10,0			○	
16NR-11W	16,00	9,52	11,0			○	
16NR-12W	16,00	9,52	12,0			○	
16NR-14W	16,00	9,52	14,0			○	
16NR-16W	16,00	9,52	16,0			○	
16NR-18W	16,00	9,52	18,0			○	
16NR-19W	16,00	9,52	19,0			○	
16NR-20W	16,00	9,52	20,0			○	
16NR-22W	16,00	9,52	22,0			○	
16NR-24W	16,00	9,52	24,0			○	
16NR-26W	16,00	9,52	26,0			○	
16NR-28W	16,00	9,52	28,0			○	
22NR-4W	22,00	12,70	4,0			○	
22NR-4.5W	22,00	12,70	4,5			○	
22NR-5W	22,00	12,70	5,0			○	
22NR-6W	22,00	12,70	6,0			○	
22NR-7W	22,00	12,70	7,0			○	

**NL-W**

	l	d	p	KM15	PM25	TIN25	TL20
06NL-18W	6,00	3,96	18,0			○	
06NL-20W	6,00	3,96	20,0			○	
06NL-22W	6,00	3,96	22,0			○	
06NL-26W	6,00	3,96	26,0			○	
08NL-16W	8,00	4,76	16,0			○	
08NL-18W	8,00	4,76	18,0			○	
08NL-19W	8,00	4,76	19,0			○	
08NL-20W	8,00	4,76	20,0			○	
08NL-24W	8,00	4,76	24,0			○	
08NL-28W	8,00	4,76	28,0			○	
16NL-11W	16,00	9,52	11,0			○	
16NL-14W	16,00	9,52	14,0			○	
16NL-16W	16,00	9,52	16,0			○	
16NL-20W	16,00	9,52	20,0			○	

**NR-W TD**

	l	d	p	KM15	PM25	TIN25	TL20
16NR-8W TD	16,50	9,52	8,0			○	
16NR-9W TD	16,50	9,52	9,0			○	
16NR-10W TD	16,50	9,52	10,0			○	
16NR-11W TD	16,50	9,52	11,0			●	○
16NR-12W TD	16,50	9,52	12,0			○	
16NR-14W TD	16,50	9,52	14,0			●	○
16NR-16W TD	16,50	9,52	16,0			○	
16NR-18W TD	16,50	9,52	18,0			○	
16NR-19W TD	16,50	9,52	19,0			○	

Inserts

General turning

Aluminum wheel turning

Automatic lathes

Ceramic tools

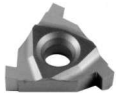
Parting and grooving

Threading

Grooving - External inserts  
Lock ring groove inserts type LG

Normally available for immediate delivery ●

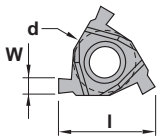
Only available in a limited quantity ○



ER-LG

### ER-LG

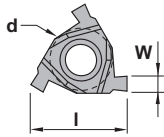
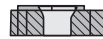
	l	d	W	KM15	PM25	TIN25	TL20
16ER-100LG	16,00	9,52	1,15				●
16ER-120LG	16,00	9,52	1,35				●
16ER-150LG	16,00	9,52	1,65				●
16ER-175LG	16,00	9,52	1,90				●
16ER-200LG	16,00	9,52	2,15				●
16ER-250LG	16,00	9,52	2,65				●



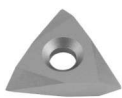
ER

### EL-LG

	l	d	W	KM15	PM25	TIN25	TL20
16EL-100LG	16,00	9,52	1,15				●
16EL-120LG	16,00	9,52	1,35				●
16EL-150LG	16,00	9,52	1,65				●
16EL-175LG	16,00	9,52	1,90				●
16EL-200LG	16,00	9,52	2,15				●



EL



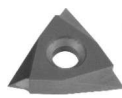
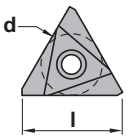
Negative triangular insert for threading.

Normally available for immediate delivery ●

Only available in a limited quantity ○

### TNMC

	l	s	d	KM15	PM25	TIN16	TL20
TNMC 1603XX	16,50	3,18	9,52		○	○	
TNMC 2204XX	22,00	4,76	12,70		●	○	



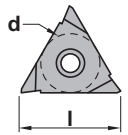
Negative triangular insert for threading.

Normally available for immediate delivery ●

Only available in a limited quantity ○

### TPMC

	l	s	d	KM15	PM25	TIN16	TL20
TPMC 1603XX	16,50	3,18	9,52		○	○	
TPMC 2204XX	22,00	4,76	12,70		○	○	



Positive 7° clearance - Triangular insert for threading. Normally available for immediate delivery ●  
Only available in a limited quantity ○

<b>L166G-ISO</b>		<b>l</b>	<b>s</b>	<b>d</b>	<b>p</b>	<b>KM15</b>	<b>PM25</b>	<b>TIN25</b>	<b>TL20</b>
	<b>L166G-3BA075</b>	16,50	3,18	9,52	0,75		○		
	<b>L166G-3BA100</b>	16,50	3,18	9,52	1,00		○		
	<b>L166G-3BA125</b>	16,50	3,18	9,52	1,25		○		
	<b>L166G-3BA150</b>	16,50	3,18	9,52	1,50		○		
	<b>L166G-3BA175</b>	16,50	3,18	9,52	1,75		○		
	<b>L166G-3BA200</b>	16,50	3,18	9,52	2,00		○		
	<b>L166G-3BA250</b>	16,50	3,18	9,52	2,50		○		
	<b>L166G-3BA300</b>	16,50	3,18	9,52	3,00		○		

Positive 7° clearance - Triangular insert for threading. Normally available for immediate delivery ●  
Only available in a limited quantity ○

<b>R166G-ISO</b>		<b>l</b>	<b>s</b>	<b>d</b>	<b>p</b>	<b>KM15</b>	<b>PM25</b>	<b>TIN25</b>	<b>TL20</b>
	<b>R166G-3BA075</b>	16,50	3,18	9,52	0,75		○		
	<b>R166G-3BA100</b>	16,50	3,18	9,52	1,00		○		
	<b>R166G-3BA125</b>	16,50	3,18	9,52	1,25		○		
	<b>R166G-3BA150</b>	16,50	3,18	9,52	1,50		○		
	<b>R166G-3BA175</b>	16,50	3,18	9,52	1,75		○		
	<b>R166G-3BA200</b>	16,50	3,18	9,52	2,00		○		
	<b>R166G-3BA250</b>	16,50	3,18	9,52	2,50		○		
	<b>R166G-3BA300</b>	16,50	3,18	9,52	3,00		○		

Positive 7° clearance - Triangular insert for threading. Normally available for immediate delivery ●  
Only available in a limited quantity ○

<b>R166G-B</b>		<b>l</b>	<b>s</b>	<b>d</b>	<b>p</b>	<b>KM15</b>	<b>PM25</b>	<b>TIN25</b>	<b>TL20</b>
	<b>R166G-3BK080</b>	16,50	3,18	9,52	08		○		
	<b>R166G-3BK160</b>	16,50	3,18	9,52	16		○		
	<b>R166G-3BL110</b>	16,50	3,18	9,52	11		○		
	<b>R166G-3BL160</b>	16,50	3,18	9,52	16		○		

Positive 7° clearance - Triangular insert for threading. Normally available for immediate delivery ●  
Only available in a limited quantity ○

<b>L166L-ISO</b>		<b>l</b>	<b>s</b>	<b>d</b>	<b>p</b>	<b>KM15</b>	<b>PM25</b>	<b>TIN25</b>	<b>TL20</b>
	<b>L166L-3BA150</b>	16,50	3,18	9,52	1,50		○		
	<b>L166L-3BA175</b>	16,50	3,18	9,52	1,75		○		
	<b>L166L-3BA200</b>	16,50	3,18	9,52	2,00		○		
	<b>L166L-3BA250</b>	16,50	3,18	9,52	2,50		○		
	<b>L166L-3BA300</b>	16,50	3,18	9,52	3,00		○		

Positive 7° clearance - Triangular insert for threading. Normally available for immediate delivery ●  
Only available in a limited quantity ○

<b>R166L-ISO</b>		<b>l</b>	<b>s</b>	<b>d</b>	<b>p</b>	<b>KM15</b>	<b>PM25</b>	<b>TIN25</b>	<b>TL20</b>
	<b>R166L-2BA100</b>	11,00	3,18	6,35	1,00		○		
	<b>R166L-2BA150</b>	11,00	3,18	6,35	1,50		○		
	<b>R166L-3BA150</b>	16,50	3,18	9,52	1,50		○		
	<b>R166L-3BA175</b>	16,50	3,18	9,52	1,75		○		
	<b>R166L-3BA200</b>	16,50	3,18	9,52	2,00		○		
	<b>R166L-3BA250</b>	16,50	3,18	9,52	2,50		○		
	<b>R166L-3BA300</b>	16,50	3,18	9,52	3,00		○		
	<b>R166L-3BK080</b>	16,50	3,18	9,52	08		○		

Threading  
Drills  
Cartridges  
Brazed tools  
Tooling

Inserts

General turning

Aluminium wheel turning

Automatic lathes

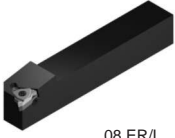
Ceramic tools

Parting and grooving

Threading

## External threading

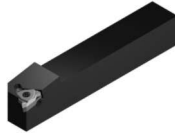
### SXAN 90°



08 ER/L..  
11 ER/L..  
16 ER/L..  
22 ER/L..

Page H.13

### STAN 90°



16 ER/L..  
22 ER/L..  
27 ER/L..

Page H.14

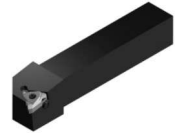
### CTAN 90°



16 ER/L..  
22 ER/L..  
27 ER/L..

Page H.15

### SXGN 90°



R/L 166G-3..  
R/L 166G-4..

Page H.16

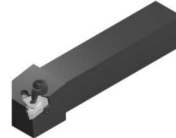
### STXN 90°



16 ER/L..  
22 ER/L..  
27 ER/L..

Page H.17

### CTXN 90°



16 ER/L..  
22 ER/L..  
27 ER/L..

Page H.18

### STCN 90°



TNMC 1603..  
TPMC 1603..  
TNMC 2204..  
TPMC 2204..

Page H.19

### CXAP 90°



R/L 166-3..  
R/L 166-4..

Page H.20

## Internal threading

### SXFN 90°



11 NR/L..  
22 NR/L..

Page H.21

### STXN 90°



11 NR/L..  
16 NR/L..  
22 NR/L..  
27 NR/L..

Page H.23

### CTXN 90°



16 NR/L..  
22 NR/L..  
27 NR/L..

Page H.24

### STGN 90°



TNMC 1603..  
TNMC 2204..

Page H.25

### STGP 90°



TPMC 1603..  
TPMC 2204..

Page H.26

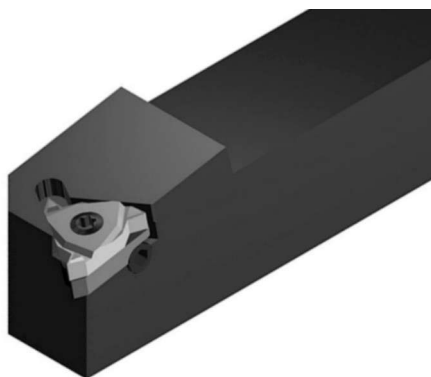
### CXFP 90°



R/L 166-2..  
R/L 166-3..  
R/L 166-4..

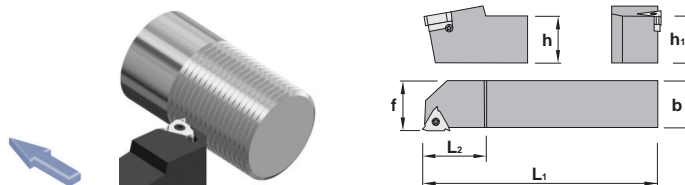
Page H.27





Characteristics:  
 Threading toolholder for negative lay down inserts.  
 The screw clamping ensures a good stiffness and evacuation of chips.  
 The insert is positioned a  $-10^\circ$  cutting angle, and a  $-1^\circ$  clearance angle.  
 Applications:  
 Multipurpose threading toolholders.

Metric screws



SXAN 90°		h=h1	b	L1	L2	f	Insert size	
Ref.	SXAN R/L 0808 M08	8	8	150	20	8	08 ER/L..	0,070
	SXAN R/L 1010 M08	10	10	150	20	10	08 ER/L..	0,100
	SXAN R/L 1212 M11	12	12	150	20	12	11 ER/L..	0,140
	SXAN R/L 1616 H16	16	16	100	22	16	16 ER/L..	0,200
	SXAN R/L 1616 M16	16	16	150	22	16	16 ER/L..	0,270
	SXAN R/L 2020 K16	20	20	125	28	20	16 ER/L..	0,400
	SXAN R/L 2525 M16	25	25	150	28	25	16 ER/L..	0,700
	SXAN R/L 3232 P16	32	32	170	28	32	16 ER/L..	1,300
	SXAN R/L 2525 M22	25	25	150	34	25	22 ER/L..	0,700
	SXAN R/L 3232 P22	32	32	170	34	32	22 ER/L..	1,300

Ref.					
Ref.	SXAN R/L 0808 M08	1225	5507	-	-
	SXAN R/L 1010 M08	1225	5507	-	-
	SXAN R/L 1212 M11	1225	5507	-	-
	SXAN R/L 1616 H16	1335	5515	3424	1093
	SXAN R/L 1616 M16	1335	5515	3424	1093
	SXAN R/L 2020 K16	1335	5515	3424	1093
	SXAN R/L 2525 M16	1335	5515	3424	1093
	SXAN R/L 3232 P16	1335	5515	3424	1093
	SXAN R/L 2525 M22	1340	5515	3430	1094
	SXAN R/L 3232 P22	1340	5515	3430	1094

Ref.	E R/L		I	d	Negative triangular inserts for external threading
		08 ER/L		8,00	
	11 ER/L		11,00	6,35	
	16 ER/L..		16,00	9,52	
	22 ER/L..		22,00	12,70	
	ER/L	ER/L TD			

For more information see page: H.04

Inserts

General turning

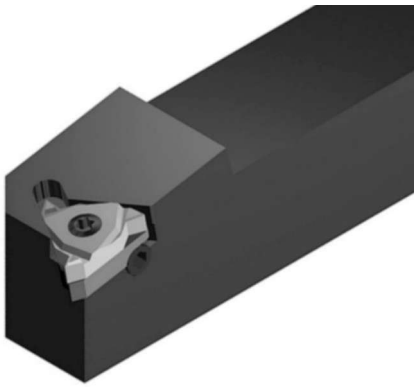
Aluminium wheel turning

Automatic lathes

Ceramic tools

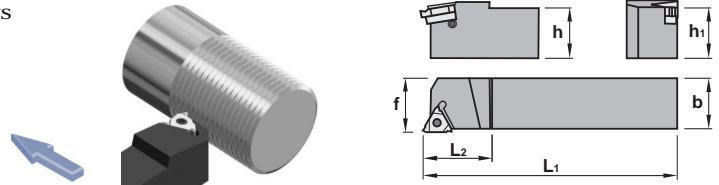
Parting and grooving

Threading



**Characteristics:**  
Threading toolholder for negative lay down inserts.  
The screw clamping ensures a good stiffness and evacuation of chips.  
The insert is positioned a  $-10^\circ$  cutting angle, and a  $-1^\circ$  clearance angle.  
**Applications:**  
Multipurpose threading toolholders.

Whitworth screws



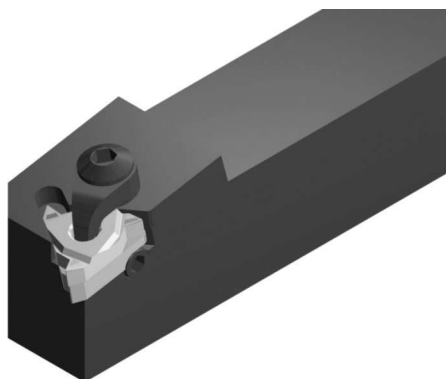
### STAN 90°

Ref.		h=h1	b	L1	L2	f	Insert size	
STAN R/L 1616 H16		16	16	100	20,5	16	16 ER/L..	0,200
STAN R/L 2020 K16		20	20	125	30,0	20	16 ER/L..	0,400
STAN R/L 2525 M16		25	25	150	30,0	25	16 ER/L..	0,700
STAN R/L 3232 P16		32	32	170	30,0	32	16 ER/L..	1,300
STAN R/L 2525 M22		25	25	150	36,0	25	22 ER/L..	0,700
STAN R/L 3232 P22		32	32	175	36,0	32	22 ER/L..	1,300
STAN R/L 4040 R22		40	40	200	36,0	40	22 ER/L..	3,000
STAN R/L 3232 P27		32	32	170	40,0	32	27 ER/L..	1,300
STAN R/L 4040 R27		40	40	200	40,0	40	27 ER/L..	3,000
STAN R/L 5050 S27		50	50	250	40,0	50	27 ER/L..	5,800

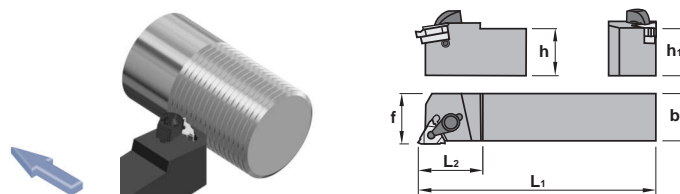
Ref.					
STAN R/L 1616 H16	SA3	5510	YE3	YI3	SY3
STAN R/L 2020 K16	SA3	5510	YE3	YI3	SY3
STAN R/L 2525 M16	SA3	5510	YE3	YI3	SY3
STAN R/L 3232 P16	SA3	5510	YE3	YI3	SY3
STAN R/L 2525 M22	SA4	5520	YE4	YI4	SY4
STAN R/L 3232 P22	SA4	5520	YE4	YI4	SY4
STAN R/L 4040 R22	SA4	5520	YE4	YI4	SY4
STAN R/L 3232 P27	SA5	5525	YE5	YI5	SY5
STAN R/L 4040 R27	SA5	5525	YE5	YI5	SY5
STAN R/L 5050 S27	SA5	5525	YE5	YI5	SY5

	E R/L		l	d	Negative triangular inserts for external threading
	Ref.	16 ER/L..	22 ER/L..	27 ER/L..	
	ER/L	ER/L TD			

For more information see page: H.04



Characteristics:  
 Top clamp threading toolholder for negative lay down inserts.  
 The insert is positioned a  $-10^\circ$  cutting angle, and a  $-1^\circ$  clearance angle.  
 Applications:  
 Multipurpose threading toolholders.



CTAN 90°								
Ref.		h=h <sub>1</sub>	b	L <sub>1</sub>	L <sub>2</sub>	f	Insert size	Kg
CTAN R/L 2020 K16	CTAN R/L 2020 K16	20	20	125	30	20	16 ER/L..	0,400
	CTAN R/L 2525 M16	25	25	150	30	25	16 ER/L..	0,700
	CTAN R/L 3232 P16	32	32	170	30	32	16 ER/L..	1,050
CTAN R/L 2525 M22	CTAN R/L 2525 M22	25	25	150	36	25	22 ER/L..	0,700
	CTAN R/L 3232 P22	32	32	170	36	32	22 ER/L..	1,300
	CTAN R/L 4040 R22	40	40	200	36	40	22 ER/L..	3,000
CTAN R/L 3232 P27	CTAN R/L 3232 P27	32	32	170	40	32	27 ER/L..	1,300
	CTAN R/L 4040 R27	40	40	200	40	40	27 ER/L..	3,000
	CTAN R/L 5050 S27	50	50	250	40	50	27 ER/L..	5,800

Ref.							
CTAN R/L 2020 K16	CTAN R/L 2020 K16	2516	5515	YE3	YI3	SY3	SA3
	CTAN R/L 2525 M16	2516	5515	YE3	YI3	SY3	SA3
	CTAN R/L 3232 P16	2516	5515	YE3	YI3	SY3	SA3
CTAN R/L 2525 M22	CTAN R/L 2525 M22	2522	5515	YE4	YI4	SY4	SA4
	CTAN R/L 3232 P22	2522	5515	YE4	YI4	SY4	SA4
	CTAN R/L 4040 R22	2522	5515	YE4	YI4	SY4	SA4
CTAN R/L 3232 P27	CTAN R/L 3232 P27	2527	5525	YE5	YI5	SY5	SA5
	CTAN R/L 4040 R27	2527	5525	YE5	YI5	SY5	SA5
	CTAN R/L 5050 S27	2527	5525	YE5	YI5	SY5	SA5

*Optional*

	E R/L		l	d	Negative triangular inserts for external threading
	Ref.	16 ER/L..	22 ER/L..	27 ER/L..	
	ER/L	ER/L TD			

For more information see page: H.04

Inserts

General turning

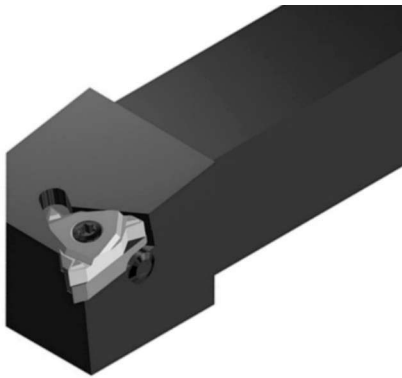
Aluminium wheel turning

Automatic lathes

Ceramic tools

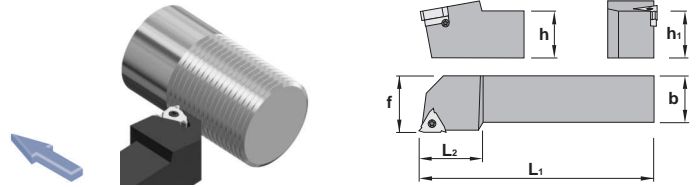
Parting and grooving

Threading



**Characteristics:**  
Threading toolholder for negative lay down inserts.  
The screw clamping ensures good stiffness and evacuation of chips.  
The insert is positioned a  $-10^\circ$  cutting angle, and a  $-1^\circ$  clearance angle.  
**Applications:**  
Multipurpose threading toolholders.

Metric screws



### SXGN 90°

Ref.		h=h1	b	L1	L2	f	Insert size	Kg
	<b>SXGN R/L 1212 F16</b>	12	12	80	22	16	16 ER/L..	0,100
	<b>SXGN R/L 1616 H16</b>	16	16	100	22	20	16 ER/L..	0,200
	<b>SXGN R/L 2020 K16</b>	20	20	125	28	25	16 ER/L..	0,400
	<b>SXGN R/L 2525 M16</b>	25	25	150	28	32	16 ER/L..	0,700
	<b>SXGN R/L 3232 P16</b>	32	32	170	28	40	16 ER/L..	1,050
	<b>SXGN R/L 2525 M22</b>	25	25	150	34	32	22 ER/L..	0,700
	<b>SXGN R/L 3232 P22</b>	32	32	170	34	40	22 ER/L..	1,050

Ref.			R	L		
	<b>SXGN R/L 1212 F16</b>	1335	5515	3424	3425	1093
	<b>SXGN R/L 1616 H16</b>	1335	5515	3424	3425	1093
	<b>SXGN R/L 2020 K16</b>	1335	5515	3424	3425	1093
	<b>SXGN R/L 2525 M16</b>	1335	5515	3424	3425	1093
	<b>SXGN R/L 3232 P16</b>	1335	5515	3424	3425	1093
	<b>SXGN R/L 2525 M22</b>	1340	5515	3430	3431	1094
	<b>SXGN R/L 3232 P22</b>	1340	5515	3430	3431	1094

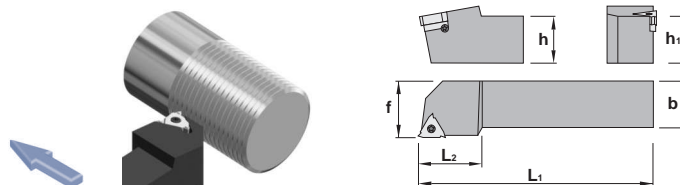
	E R/L		l	d	Negative triangular inserts for external threading
	Ref.	16 ER/L..	22 ER/L..	16,00	
			22,00	12,70	
	ER/L	ER/L TD			


For more information see page: H.04










Characteristics:  
 Threading toolholder for negative lay down inserts.  
 The screw clamping ensures a good stiffness and evacuation of chips.  
 The insert is positioned a  $-10^\circ$  cutting angle, and a  $-1^\circ$  clearance angle.  
 Applications:  
 Multipurpose threading toolholders.

Whitworth screws



STXN 90°		h=h1	b	L1	L2	f	Insert size	
Ref.	STXN R/L 1212 F16	12	12	80	22,0	16	16 ER/L..	0,100
	STXN R/L 1616 H16	16	16	100	20,5	20	16 ER/L..	0,200
	STXN R/L 2020 K16	20	20	125	30,0	25	16 ER/L..	0,400
	STXN R/L 2525 M16	25	25	150	30,0	32	16 ER/L..	0,700
	STXN R/L 3232 P16	32	32	170	30,0	40	16 ER/L..	1,050
	STXN R/L 2525 M22	25	25	150	36,0	32	22 ER/L..	0,700
	STXN R/L 3232 P22	32	32	170	36,0	40	22 ER/L..	1,300
	STXN R/L 4040 R22	40	40	200	36,0	50	22 ER/L..	3,000
	STXN R/L 2525 M27	25	25	150	35,0	32	27 ER/L..	0,700
	STXN R/L 3232 P27	32	32	170	40,0	40	27 ER/L..	1,300
	STXN R/L 4040 R27	40	40	200	40,0	50	27 ER/L..	3,000
	STXN R/L 5050 S27	50	50	250	40,0	60	27 ER/L..	5,800

Ref.					
STXN R/L 1212 F16	SA3	5510	YE3	YI3	SY3
STXN R/L 1616 H16	SA3	5510	YE3	YI3	SY3
STXN R/L 2020 K16	SA3	5510	YE3	YI3	SY3
STXN R/L 2525 M16	SA3	5510	YE3	YI3	SY3
STXN R/L 3232 P16	SA3	5510	YE3	YI3	SY3
STXN R/L 2525 M22	SA4	5520	YE4	YI4	SY4
STXN R/L 3232 P22	SA4	5520	YE4	YI4	SY4
STXN R/L 4040 R22	SA4	5520	YE4	YI4	SY4
STXN R/L 2525 M27	SA5	5525	YE5	YI5	SY5
STXN R/L 3232 P27	SA5	5525	YE5	YI5	SY5
STXN R/L 4040 R27	SA5	5525	YE5	YI5	SY5
STXN R/L 5050 S27	SA5	5525	YE5	YI5	SY5

Ref.	E R/L		l	d	Negative triangular inserts for external threading
	16 ER/L..		16,00	9,52	
22 ER/L..		22,00	12,70		
27 ER/L..		27,50	15,88		
	ER/L	ER/L TD			
					

For more information see page: H.04

Threading  
 Drills  
 Cartridges  
 Brazed tools  
 Tooling



Inserts

General turning

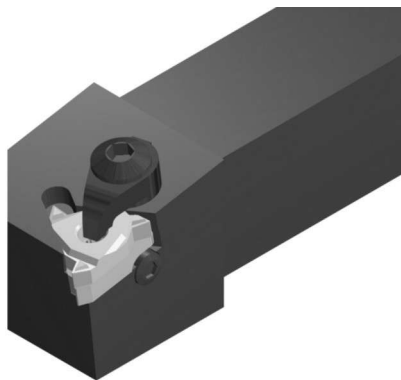
Aluminium wheel turning

Automatic lathes

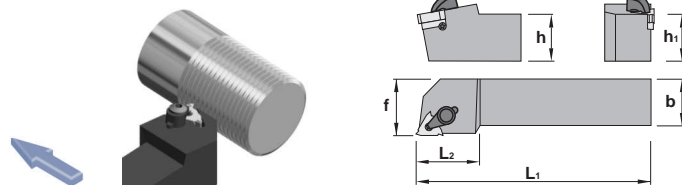
Ceramic tools

Parting and grooving

Threading



**Characteristics:**  
 Top clamp threading toolholder for negative lay down inserts.  
 The insert is positioned a  $-10^\circ$  cutting angle, and a  $-1^\circ$  clearance angle.  
**Applications:**  
 Multipurpose threading toolholders.



### CTXN 90°

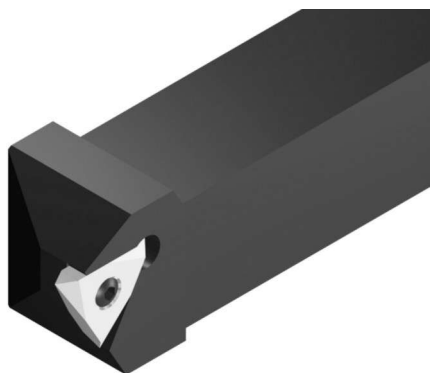
Ref.		h=h1	b	L1	L2	f	Insert size	
CTXN R/L 1212 F16		12	12	80	22,0	16	16 ER/L..	0,100
CTXN R/L 1616 H16		16	16	100	20,5	20	16 ER/L..	0,200
CTXN R/L 2020 K16		20	20	125	30,0	25	16 ER/L..	0,400
CTXN R/L 2525 M16		25	25	150	30,0	32	16 ER/L..	0,700
CTXN R/L 3232 P16		32	32	170	30,0	40	16 ER/L..	1,050
CTXN R/L 2525 M22		25	25	150	36,0	32	22 ER/L..	0,700
CTXN R/L 3232 P22		32	32	170	36,0	40	22 ER/L..	1,300
CTXN R/L 4040 R22		40	40	200	36,0	50	22 ER/L..	3,000
CTXN R/L 2525 M27		25	25	150	35,0	32	27 ER/L..	0,700
CTXN R/L 3232 P27		32	32	170	40,0	40	27 ER/L..	1,300
CTXN R/L 4040 R27		40	40	200	40,0	50	27 ER/L..	3,000
CTXN R/L 5050 S27		50	50	250	40,0	60	27 ER/L..	5,800

Ref.						
CTXN R/L 1212 F16	2516	5515	YE3	YI3	SY3	SA3
CTXN R/L 1616 H16	2516	5515	YE3	YI3	SY3	SA3
CTXN R/L 2020 K16	2516	5515	YE3	YI3	SY3	SA3
CTXN R/L 2525 M16	2516	5515	YE3	YI3	SY3	SA3
CTXN R/L 3232 P16	2516	5515	YE3	YI3	SY3	SA3
CTXN R/L 2525 M22	2522	5515	YE4	YI4	SY4	SA4
CTXN R/L 3232 P22	2522	5515	YE4	YI4	SY4	SA4
CTXN R/L 4040 R22	2522	5515	YE4	YI4	SY4	SA4
CTXN R/L 2525 M27	2527	5525	YE5	YI5	SY5	SA5
CTXN R/L 3232 P27	2527	5525	YE5	YI5	SY5	SA5
CTXN R/L 4040 R27	2527	5525	YE5	YI5	SY5	SA5
CTXN R/L 5050 S27	2527	5525	YE5	YI5	SY5	SA5

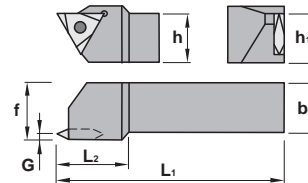
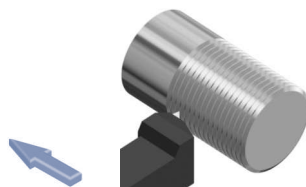
*Optional*

	E R/L		l	d	Negative triangular inserts for external threading
	Ref.	16 ER/L..	22 ER/L..	27 ER/L..	
	ER/L	ER/L TD			

For more information see page: H.04



Characteristics:  
Vertical on edge threading toolholder.  
The insert is positioned with a 0° cutting angle, and a 0° clearance angle.  
Applications:  
Toolholders for threading.



STCN 90°									
Ref.		h=h1	b	L1	L2	f	G	Insert size	kg
	STCN R/L 1212 F16	12	12	80	23	16	1,59	TNMC/TPMC 1603..	0,100
	STCN R/L 1616 H16	16	16	100	23	19	1,59	TNMC/TPMC 1603..	0,200
	STCN R/L 2020 K16	20	20	125	23	22	1,59	TNMC/TPMC 1603..	0,400
	STCN R/L 2525 M16	25	25	150	23	32	1,59	TNMC/TPMC 1603..	0,700
	STCN R/L 3232 P16	32	32	170	23	38	1,59	TNMC/TPMC 1603..	1,050
	STCN R/L 2020 K22	20	20	125	32	22	2,38	TNMC/TPMC 2204..	0,400
	STCN R/L 2525 M22	25	25	150	32	32	2,38	TNMC/TPMC 2204..	0,700
	STCN R/L 3225 P22	32	25	170	32	32	2,38	TNMC/TPMC 2204..	1,025
	STCN R/L 3232 P22	32	32	170	32	38	2,38	TNMC/TPMC 2204..	1,050
	STCN R/L 2525 M27	25	25	150	32	32	2,38	TNMC/TPMC 2704..	0,700
	STCN R/L 3232 P27	32	32	170	32	38	2,38	TNMC/TPMC 2704..	1,050

Ref.			
	STCN R/L 1212 F16	1935	5002
	STCN R/L 1616 H16	1935	5002
	STCN R/L 2020 K16	1935	5002
	STCN R/L 2525 M16	1935	5002
	STCN R/L 3232 P16	1935	5002
	STCN R/L 2020 K22	1950	5025
	STCN R/L 2525 M22	1950	5025
	STCN R/L 3225 P22	1950	5025
	STCN R/L 3232 P22	1950	5025
	STCN R/L 2525 M27	1955	5003
	STCN R/L 3232 P27	1955	5003

	TNMC/TPMC				Negative triangular inserts for threading		
	Ref.	l	s	d			
		T..MC 1603..	16,50	3,18	9,52	For more information see page: H.10	
	T..MC 2204..	22,00	4,76	12,70			
	T..MC 2704..	27,00	4,76	15,88			
	TNMC	TPMC					

Threading  
Drills  
Cartridges  
Brazed tools  
Tooling

Inserts

General turning

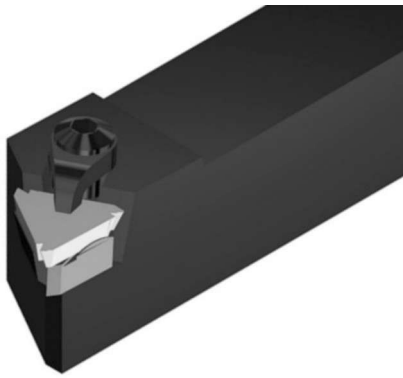
Aluminium wheel turning

Automatic lathes

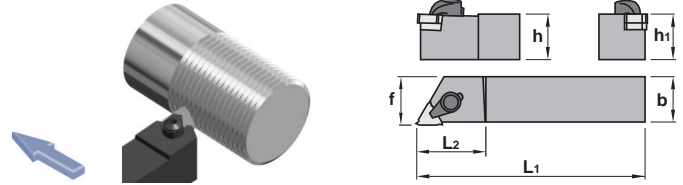
Ceramic tools

Parting and grooving


Threading









Characteristics:  
Toolholder for flat positive inserts.  
The insert is positioned with a 0° cutting angle, and a 0° clearance angle.  
Applications:  
Threading toolholder.

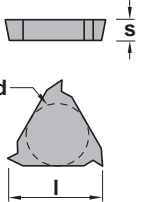



## CXAP 90°

Ref.		h=h1	b	L1	L2	f	Insert size	
	<b>CXAP R/L 2016 K16</b>	20	16	125	22	17	R/L 166-3..	0,300
	<b>CXAP R/L 2020 K16</b>	20	20	125	28	21	R/L 166-3..	0,400
	<b>CXAP R/L 2525 M16</b>	25	25	150	28	26	R/L 166-3..	0,700
	<b>CXAP R/L 3225 P16</b>	32	25	170	28	26	R/L 166-3..	1,050
	<b>CXAP R/L 3232 P16</b>	32	32	170	28	33	R/L 166-3..	1,300
	<b>CXAP R/L 2525 M22</b>	25	25	150	34	26	R/L 166-4..	0,700
	<b>CXAP R/L 3225 P22</b>	32	25	170	34	26	R/L 166-4..	1,050
	<b>CXAP R/L 3232 P22</b>	32	32	170	34	33	R/L 166-4..	1,300

Ref.						
	<b>CXAP R/L 2016 K16</b>	2209	5003	3126 R/L	4012	2409 9216 - 9316
	<b>CXAP R/L 2020 K16</b>	2209	5003	3126 R/L	4012	2409 9216 - 9316
	<b>CXAP R/L 2525 M16</b>	2209	5003	3126 R/L	4012	2409 9216 - 9316
	<b>CXAP R/L 3225 P16</b>	2209	5003	3126 R/L	4012	2409 9216 - 9316
	<b>CXAP R/L 3232 P16</b>	2209	5003	3126 R/L	4012	2409 9216 - 9316
	<b>CXAP R/L 2525 M22</b>	2211	5004	3132 R/L	4012	2411 9222 - 9322
	<b>CXAP R/L 3225 P22</b>	2211	5004	3132 R/L	4012	2411 9222 - 9322
	<b>CXAP R/L 3232 P22</b>	2211	5004	3132 R/L	4012	2411 9222 - 9322

Supplementary accessories

	<b>R/L 166</b>				Positive triangular inserts for threading
	Ref.	l	s	d	
	R/L 166-3..	16,50	3,18	9,52	For more information see page: H.11
	R/L 166-4..	22,00	4,76	12,70	
	<b>R/L 166</b>				
					



Characteristics:  
 Threading toolholder for negative lay down inserts.  
 The center screw ensures a good stiffness and evacuation of chips.  
 The insert is positioned with a  $-10^\circ$  cutting angle, and a  $-1^\circ$  clearance angle.  
 Applications:  
 Multipurpose threading boring bars.

Metric screws



SXFN 90°		D	h	h1	L1	L2	f	A	Insert size	
Ref.	S10K SXFN R/L 11	10	9	4,5	125	16	7,3	13	11 NR/L..	0,070
	S16M SXFN R/L 11	16	15	7,5	150	25	8,9	16	11 NR/L..	0,200
	S16M SXFN R/L 16	16	15	7,5	150	25	11,5	20	16 NR/L..	0,200
	S20Q SXFN R/L 16	20	18	9,0	180	25	13,4	24	16 NR/L..	0,400
	S25S SXFN R/L 16	25	23	11,5	250	35	16,3	29	16 NR/L..	0,900
	S32T SXFN R/L 16	32	30	15,0	300	40	19,6	36	16 NR/L..	1,750
	S40T SXFN R/L 16	40	37	18,5	300	40	23,8	44	16 NR/L..	2,700
	S20Q SXFN R/L 22	20	18	9,0	180	25	15,6	27	22 NR/L..	0,400
	S25S SXFN R/L 22	25	23	11,5	250	35	17,2	32	22 NR/L..	0,900
	S32T SXFN R/L 22	32	30	15,0	300	40	21,5	39	22 NR/L..	1,750
	S40T SXFN R/L 22	40	37	18,5	300	40	25,8	47	22 NR/L..	2,700

Ref.					
S10K SXFN R/L 11	1225	5507	-	-	-
S16M SXFN R/L 11	1225	5507	-	-	-
S16M SXFN R/L 16	1635	5510	-	-	-
S20Q SXFN R/L 16	1334	5515	3425	3424	1093
S25S SXFN R/L 16	1335	5515	3425	3424	1093
S32T SXFN R/L 16	1335	5515	3425	3424	1093
S40T SXFN R/L 16	1335	5515	3425	3424	1093
S20Q SXFN R/L 22	1640	5515	-	-	-
S25S SXFN R/L 22	1340	5515	3431	3430	1094
S32T SXFN R/L 22	1340	5515	3431	3430	1094
S40T SXFN R/L 22	1340	5515	3431	3430	1094

Ref.	N R/L		I	d	Negative triangular inserts for internal threading
	11 NR/L..		11,00	6,35	
16 NR/L..		16,00	9,52		
22 NR/L..		22,00	12,70		
	NR/L	NR/L TD			

For more information see page: H.05

Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

Parting and grooving

Threading



Characteristics:  
Boring bars with anti-vibration shank.

### H-SXFN 90°

Ref.	D	h	h <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	f	A	Insert size	
H10K SXFN R/L 11	10	9	4,5	125	16	7,3	13	11 NR/L..	0,130
H16M SXFN R/L 11	16	15	7,5	150	25	8,9	16	11 NR/L..	0,400
H16M SXFN R/L 16	16	15	7,5	150	25	11,5	20	16 NR/L..	0,400

Ref.	H10K SXFN R/L 11	1225	5507
	H16M SXFN R/L 11	1225	5507
	H16M SXFN R/L 16	1635	5510



Characteristics:  
Boring bars with internal coolant and anti-vibration shank.

### J-SXFN 90°

Ref.	D	h	h <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	f	A	Insert size	
J10K SXFN R/L 11	10	9	4,5	125	16	7,3	13	11 NR/L..	0,150
J16M SXFN R/L 11	16	15	7,5	150	25	8,9	16	11 NR/L..	0,450
J16M SXFN R/L 16	16	15	7,5	150	25	11,5	20	16 NR/L..	0,450

Ref.	J10K SXFN R/L 11	1225	5507
	J16M SXFN R/L 11	1225	5507
	J16M SXFN R/L 16	1635	5510

	N R/L		l	d	Negative triangular inserts for internal threading
	Ref.	11 NR/L..	11,00	6,35	
	16 NR/L..	16,00	9,52		
	NR/L	NR/L TD			

For more information see page: H.05





Characteristics:  
 Threading toolholder for negative lay down inserts.  
 The center screw ensures a good stiffness and evacuation of chips.  
 The insert is positioned with a  $-10^\circ$  cutting angle, and a  $-1^\circ$  clearance angle.  
 Applications:  
 Multipurpose threading boring bars.

Whitworth screws



STXN 90°		D	h	h1	L1	L2	f	A	Insert size	
Ref.	S16M STXN R/L 16	16	15	7,5	150	32	11,5	15,2	16 NR/L..	0,200
	S20Q STXN R/L 16	20	18	9,0	180	40	13,4	18,0	16 NR/L..	0,400
	S25R STXN R/L 16	25	23	11,5	200	45	16,3	22,6	16 NR/L..	0,700
	S32S STXN R/L 16	32	30	15,0	250	60	19,6	29,0	16 NR/L..	1,500
	S40T STXN R/L 16	40	37	18,5	300	60	23,8	36,0	16 NR/L..	2,850
	S20Q STXN R/L 22	20	18	9,0	180	50	15,6	18,0	22 NR/L..	0,400
	S25R STXN R/L 22	25	23	11,5	200	60	17,2	22,6	22 NR/L..	0,700
	S32S STXN R/L 22	32	30	15,0	250	60	21,5	29,0	22 NR/L..	1,500
	S40T STXN R/L 22	40	37	18,5	300	60	25,8	36,0	22 NR/L..	2,850
	S32S STXN R/L 27	32	30	15,0	250	60	22,4	40,0	27 NR/L..	1,500
	S40T STXN R/L 27	40	37	18,5	300	60	26,4	48,0	27 NR/L..	2,850
	S50U STXN R/L 27	50	47	23,5	350	75	31,4	58,0	27 NR/L..	5,200
	S60V STXN R/L 27	60	57	28,5	400	75	36,4	69,0	27 NR/L..	8,550

Ref.					
S16M STXN R/L 16	SN3	5510	-	-	-
S20Q STXN R/L 16	SN3	5510	YI3	YE3	SY3
S25R STXN R/L 16	SA3	5510	YI3	YE3	SY3
S32S STXN R/L 16	SA3	5510	YI3	YE3	SY3
S40T STXN R/L 16	SA3	5510	YI3	YE3	SY3
S20Q STXN R/L 22	SN4	5520	-	-	-
S25R STXN R/L 22	SA4	5520	YI4	YE4	SY4
S32S STXN R/L 22	SA4	5520	YI4	YE4	SY4
S40T STXN R/L 22	SA4	5520	YI4	YE4	SY4
S32S STXN R/L 27	SA5	5525	YI5	YE5	SY5
S40T STXN R/L 27	SA5	5525	YI5	YE5	SY5
S50U STXN R/L 27	SA5	5525	YI5	YE5	SY5
S60V STXN R/L 27	SA5	5525	YI5	YE5	SY5

	N R/L		I	d	Negative triangular inserts for internal threading
	Ref.	16 NR/L..	16,00	9,52	
	22 NR/L..	22,00	12,70		
	27 NR/L..	27,00	15,87		
	NR/L	NR/L TD			

For more information see page: H.05

Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

Parting and grooving

Threading

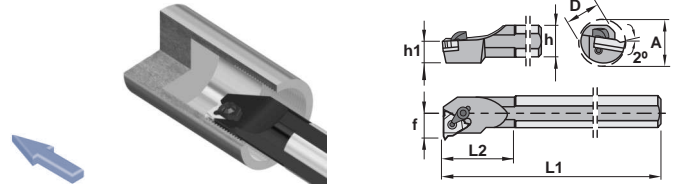


### Characteristics:

Top clamp threading toolholder for negative lay down inserts.  
The top clamp ensures a good stiffness and evacuation of chips.  
The insert is positioned with a  $-10^\circ$  cutting angle, and a  $-1^\circ$  clearance angle.

### Applications:

Multipurpose threading boring bars.



## CTXN 90°

Ref.		D	h	h <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	f	A	Insert size	Kg
S20Q CTXN R/L 16	S20Q CTXN R/L 16	20	18	9,0	180	50	13,0	18,0	16 NR/L..	0,400
	S25R CTXN R/L 16	25	23	11,5	200	45	17,0	22,6	16 NR/L..	0,700
	S32S CTXN R/L 16	32	30	15,0	250	60	22,0	29,0	16 NR/L..	1,500
	S40T CTXN R/L 16	40	37	18,5	300	60	27,0	36,0	16 NR/L..	2,850
S25R CTXN R/L 22	S25R CTXN R/L 22	25	23	11,5	200	45	17,0	22,6	22 NR/L..	0,700
	S32S CTXN R/L 22	32	30	15,0	250	60	22,0	29,0	22 NR/L..	1,500
	S40T CTXN R/L 22	40	37	18,5	300	60	27,0	36,0	22 NR/L..	2,850
S32S CTXN R/L 27	S32S CTXN R/L 27	32	30	15,0	250	60	22,4	40,0	27 NR/L..	1,500
	S40T CTXN R/L 27	40	37	18,5	300	60	26,4	48,0	27 NR/L..	2,850
	S50U CTXN R/L 27	50	47	23,5	350	75	31,4	58,0	27 NR/L..	5,200
	S60V CTXN R/L 27	60	58	29,0	400	75	36,4	69,0	27 NR/L..	8,550

Ref.							
S20Q CTXN R/L 16	S20Q CTXN R/L 16	2516	5515	YI3	YE3	SY3	SN3
	S25R CTXN R/L 16	2516	5515	YI3	YE3	SY3	SA3
	S32S CTXN R/L 16	2516	5515	YI3	YE3	SY3	SA3
	S40T CTXN R/L 16	2516	5515	YI3	YE3	SY3	SA3
S25R CTXN R/L 22	S25R CTXN R/L 22	2522	5515	YI4	YE4	SY4	SA4
	S32S CTXN R/L 22	2522	5515	YI4	YE4	SY4	SA4
	S40T CTXN R/L 22	2522	5515	YI4	YE4	SY4	SA4
S32S CTXN R/L 27	S32S CTXN R/L 27	2527	5525	YI5	YE5	SY5	SA5
	S40T CTXN R/L 27	2527	5525	YI5	YE5	SY5	SA5
	S50U CTXN R/L 27	2527	5525	YI5	YE5	SY5	SA5
	S60V CTXN R/L 27	2527	5525	YI5	YE5	SY5	SA5

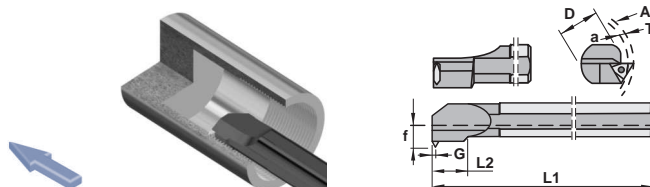
*Optional*

	N R/L		l	d	Negative triangular inserts for internal threading
	Ref.	16 NR/L..	22 NR/L..	27 NR/L..	
	NR/L	NR/L TD			

For more information see page: H.05



Characteristics:  
Vertical on edge threading toolholder.  
The insert is positioned with a 0° cutting angle, and a 0° clearance angle.  
Applications:  
Threading boring bar.



STGN 90°		D	L1	L2	f	A	a	T	G	Insert size	Kg
Ref.	S32U STGN R/L 16	32	350	19	21,0	50,4	45	2,7	1,59	TNMC 1603..	2,100
	S40V STGN R/L 16	40	400	19	25,0	60,4	55	2,7	1,59	TNMC 1603..	3,650
	S32U STGN R/L 22	32	350	28	21,0	50,4	45	4,1	2,38	TNMC 2204..	2,100
	S40V STGN R/L 22	40	400	28	25,0	60,4	55	4,1	2,38	TNMC 2204..	3,650
	S50W STGN R/L 22	50	450	28	36,5	78,2	70	4,1	2,38	TNMC 2204..	6,700
	S40V STGN R/L 27	40	400	28	25,0	60,4	55	6,0	3,18	TNMC 2704..	3,650
	S50W STGN R/L 27	50	450	28	36,5	78,2	70	6,0	3,18	TNMC 2704..	6,700

Ref.		
S32U STGN R/L 16	1935	5002
S40V STGN R/L 16	1935	5002
S32U STGN R/L 22	1950	5025
S40V STGN R/L 22	1950	5025
S50W STGN R/L 22	1950	5025
S40V STGN R/L 27	1955	5003
S50W STGN R/L 27	1955	5003

 	TNMC				Triangular inserts for threading.  For more information see page: H.10
	Ref.	l	s	d	
	TNMC 1603..	16,50	3,18	9,52	
	TNMC 2204..	22,00	4,76	12,70	
	TNMC 2704..	27,00	4,76	15,88	
	TNMC				

Inserts

General turning

Aluminium wheel turning

Automatic lathes

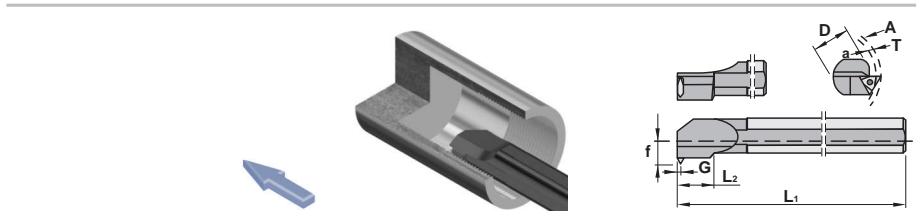
Ceramic tools

Parting and grooving

Threading



**Characteristics:**  
Vertical on edge threading toolholder.  
The insert is positioned with a 0° cutting angle, and a 0° clearance angle.  
**Applications:**  
Threading boring bar.



### STGP 90°

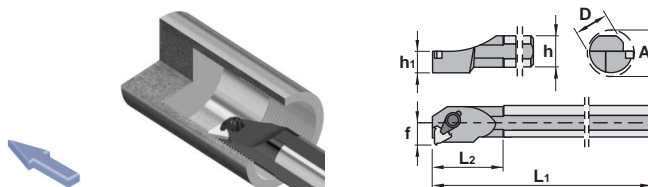
Ref.		D	L1	L2	f	A	a	T	G	Insert size	Kg
	<b>S25T STGP R/L 16</b>	25	300	19	17,5	50,4	45	2,7	1,59	TPMC 1603..	1,100
	<b>S32U STGP R/L 16</b>	32	350	19	20,5	50,4	45	2,7	1,59	TPMC 1603..	2,100
	<b>S40V STGP R/L 22</b>	40	400	28	25,0	78,2	70	4,1	2,38	TPMC 2204..	3,650
	<b>S50W STGP R/L 22</b>	50	450	28	36,5	78,2	70	4,1	2,38	TPMC 2204..	6,700

Ref.			
	<b>S25T STGP R/L 16</b>	1935	5002
	<b>S32U STGP R/L 16</b>	1935	5002
	<b>S40V STGP R/L 22</b>	1950	5025
	<b>S50W STGP R/L 22</b>	1950	5025

 	TPMC				Triangular inserts for threading.
	Ref.	l	s	d	
	<b>TPMC 1603..</b>	16,50	3,18	9,52	For more information see page: H.10
	<b>TPMC 2204..</b>	22,00	4,76	12,70	
	TNMC				



Characteristics:  
 Threading toolholder for flat positive inserts.  
 The insert is positioned with a 0° cutting angle, and a 0° clearance angle.  
 Applications:  
 Threading boring bar.



CXFP 90°		D	h	h1	L1	L2	f	A	Insert size	kg
Ref.	S16R CXFP R/L 11	16	15	7,5	200	30	11	20	R/L 166-2..	0,300
	S20S CXFP R/L 11	20	18	9,0	250	35	13	24	R/L 166-2..	0,550
	S20S CXFP R/L 16	20	18	9,0	250	35	13	24	R/L 166-3..	0,550
	S25T CXFP R/L 16	25	23	11,5	300	40	17	31	R/L 166-3..	1,050
	S32U CXFP R/L 16	32	30	15,0	350	50	22	39	R/L 166-3..	2,050
	S40V CXFP R/L 22	40	37	18,5	400	60	27	48	R/L 166-4..	3,650

Ref.	S16R CXFP R/L 11	2107	5025	
	S20S CXFP R/L 11	2107	5025	
	S20S CXFP R/L 16	2109	5003	
	S25T CXFP R/L 16	2109	5003	
	S32U CXFP R/L 16	2209	5003	
	S40V CXFP R/L 22	2211	5004	

	R/L 166				Positive triangular inserts for threading
	Ref.	l	s	d	
	R/L 166-2..	11,00	3,18	6,35	For more information see page: H.11
	R/L 166-3..	16,50	3,18	9,52	
	R/L 166-4..	22,00	4,76	12,70	
	R/L 166				



## Cutting data

Material	Cutting speed m/min. (Ft/min) Tool grade		
	PM25	KM15	TIN25
Low and medium carbon steel	120-80 (390-260)		250-210 (820-690)
High carbon steel	110-70 (360-230)		210-150 (690-490)
Alloyed tool steel and heat-treatment steels	100-70 (360-230)		180-140 (590-460)
Stainless steels	100-70 (360-230)	90-70 (295-230)	140-110 (460-360)
Cast-iron HB 180-250		90-70 (295-230)	
Non-Ferrous metals		180-120 (590-390)	

N° of passes		
P mm	TPI	N° of passes
0,50	48,0	4 - 6
0,75	32,0	4 - 7
1,00	24,0	4 - 8
1,25	20,0	5 - 9
1,50	16,0	6 - 10
1,75	14,0	7 - 12
2,00	12,0	7 - 12
2,50	10,0	8 - 14
3,00	8,0	10 - 18
3,50	7,0	11 - 18
4,00	6,0	11 - 18
4,50	5,5	11 - 19
5,00	5,0	12 - 20
5,50	4,5	12 - 20
6,00	4,0	12 - 20
8,00	3,0	15 - 24

### General recommendations :

- 1 Threading speeds should normally be a minimum of 80% to 90% of turning speeds being used to machine the same component. (Assuming grades are compatible).
- 1 Check helix angle and number of passes shown in charts before starting.
- 1 Ensure centre height is correct.
- 1 When there is a problem consult the following recommendations and change only one variable at time. This will help to be sure of the original problem.
- 1 Do not use flank infeed on work hardening materials.

## Component problems

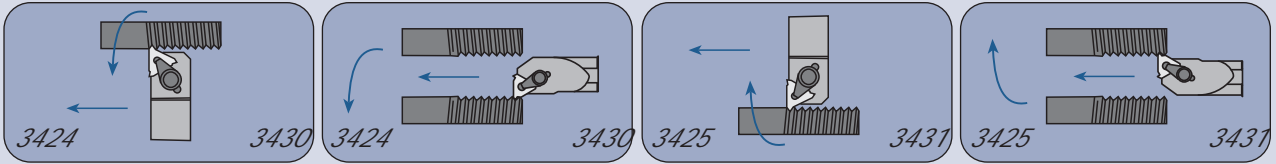
	Problem	Cause and remedy
<b>Pitch error (on CNC machines)</b>	H Starting too close to workpiece H Saddle speed towards chuck is excessive	I Start cycle further back from workpiece. I Reduce speed by 10% until correct.
<b>Thread torn on one side only</b>	H Incorrect helix angle in toolholder.	I Check helix chart. I Reassemble with correct anvil. I Check centre height.
<b>Thread torn on both sides</b>	H Running too slow. H Built up edge.	I Increase cutting speed. I Check center height. I Use coated grade. I Compare thread speed with turning speed.
<b>Long dangerous swarf</b>	H Incorrect chipbreaker geometry. H Incorrect method of infeed.	I Use Canela (TD) chipbreaker. I Use different infeed method.
<b>Vibration chatter marks on both flanks</b>	H Poor stability. H Excessive overhang.	I Renew anvil to support insert. I Check tool clamping. I Check rigidity of setup.
<b>Shallow threads Problem with gauging</b>	H Insert not cresting. H Incorrect effective diameter.	I Check machined diameters. I Excessive tool wear or chipped on nose see remedies above.

# Helix chart

Feed direction towards the chuck

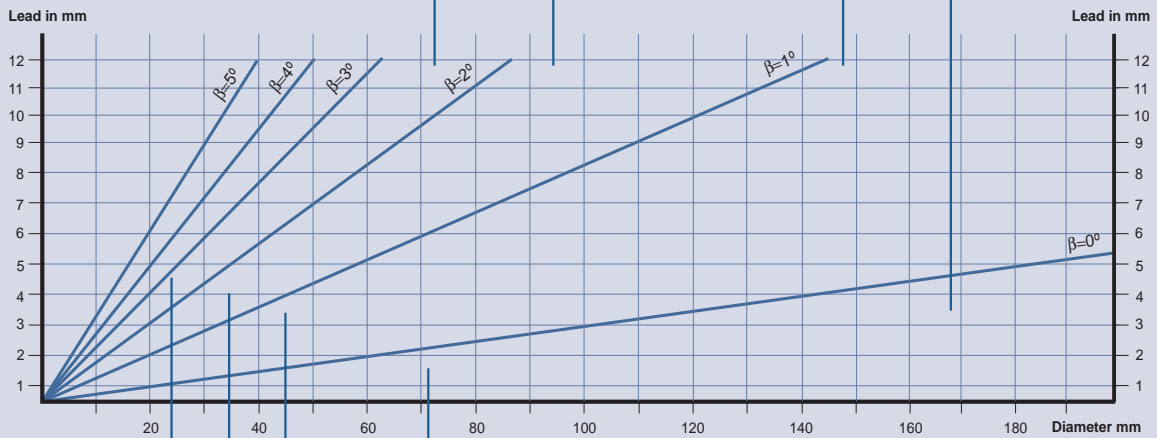
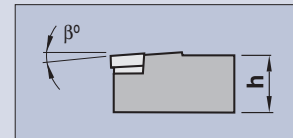
RH Thread - RH Tool

LH Thread - LH Tool



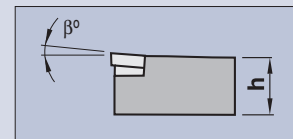
Anvil to give correct helix

Insert size	+3°	+2°	+1°	+0°
16R	3424+3	3424+2	3424+1	3424
16L	3425+3	3425+2	3425+1	3425
22R	3430+3	3430+2	3430+1	3430
22L	3431+3	3431+2	3431+1	3431



Anvil to give correct helix

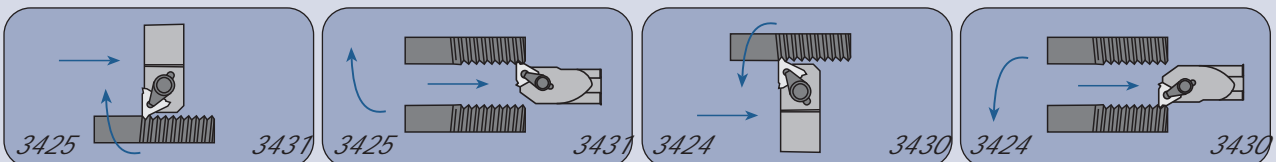
Insert size	-3°	-2°	-1°	0°
16R	3424-3	3424-2	3424-1	3424
16L	3425-3	3425-2	3425-1	3425
22R	3430-3	3430-2	3430-1	3430
22L	3431-3	3431-2	3431-1	3431



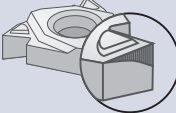
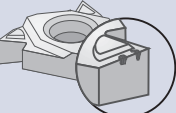
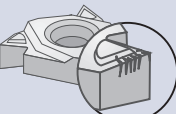
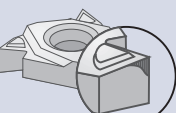
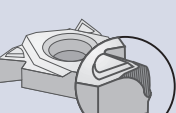

Feed direction away from the chuck

RH Thread - RH chuck

LH Thread - LH Tool



## Threading insert wear and tool life

	<i>Problem</i>	<i>Cause and Remedy</i>
<b>Rapid flank wear</b> 	H Cutting speed too high. H Lack of coolant. H Infeed per pass too small - too many passes H Incorrect grade.	I Reduce the cutting speed. I Increase the coolant supply. I Increase the depth of infeed for the smallest infeed depths - reduce the number of passes. I Select a more wear resistant grade.
<b>Edge frittering</b> 	H Instability of workholding and/or tool set-up.	I Check rigidity of operation. I Select a tougher grade.
<b>Edge spalling</b> 	H Intermittent coolant supply.	I Position coolant flow and/or increase coolant supply.
<b>Uneven flank wear</b> 	H Incorrect method of infeed. H Incorrect angle of inclination.	I In case of flank infeed use modified flank infeed. Decrease infeed angle 3-5°. I Correct the angle on inclination according to the diagram.
<b>Excessive plastic deformation</b> 	H Infeed per pass too big - too few passes. H Lack of coolant. H Cutting speed too high. H Incorrect grade. H Excessive stock removal from crest.	I Decrease the depth of infeed for the biggest depths. - Increase the number of passes. I Increase coolant supply. I Reduce the cutting speed. I Select a harder grade. I Check the volume of the material above the crest.
<b>Insert breakage</b> 	H Instability. H Lack of chip control. H Excessive plastic deformation. H Intermittent or inadequate coolant supply H Incorrect preparation of the operation	I Check rigidity of operation. I Select a tougher grade. Select modified flank infeed. I Machine with same infeed per pass. I Direct coolant flow and/or increase coolant supply. I Check dimension of blank.
<b>Shallow thread profile</b>	H Wrong centre height. H Insert not cresting. H Excessive tool wear.	I Adjust cutting edge height. I Check dimension of blank. I Change insert earlier.
<b>Incorrect thread profile</b>	H Incorrect tool setting.	I Correct tool setting.
<b>Lack of chip control</b>	H Incorrect depth of infeed per pass H Radial infeed.	I Adjust cutting edge height. I Check dimension of blank. I Change insert earlier.
<b>Bad surface finish</b>	H Cutting speed too low. H Incorrect angle of inclination. H Flank infeed.	I Increase the cutting speed. I Correct the angle of inclination according to diagram. I Use modified flank infeed or radial infeed.

Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

Parting and grooving

Threading

## Tooling for the petroleum industry

Due to the fact that these tools  
belong to a very specialized  
sector, we have issued a  
separate catalogue concerning  
only these tools.

This catalogue is available at  
any of our subsidiaries.