

Technical Information **KORLOY**

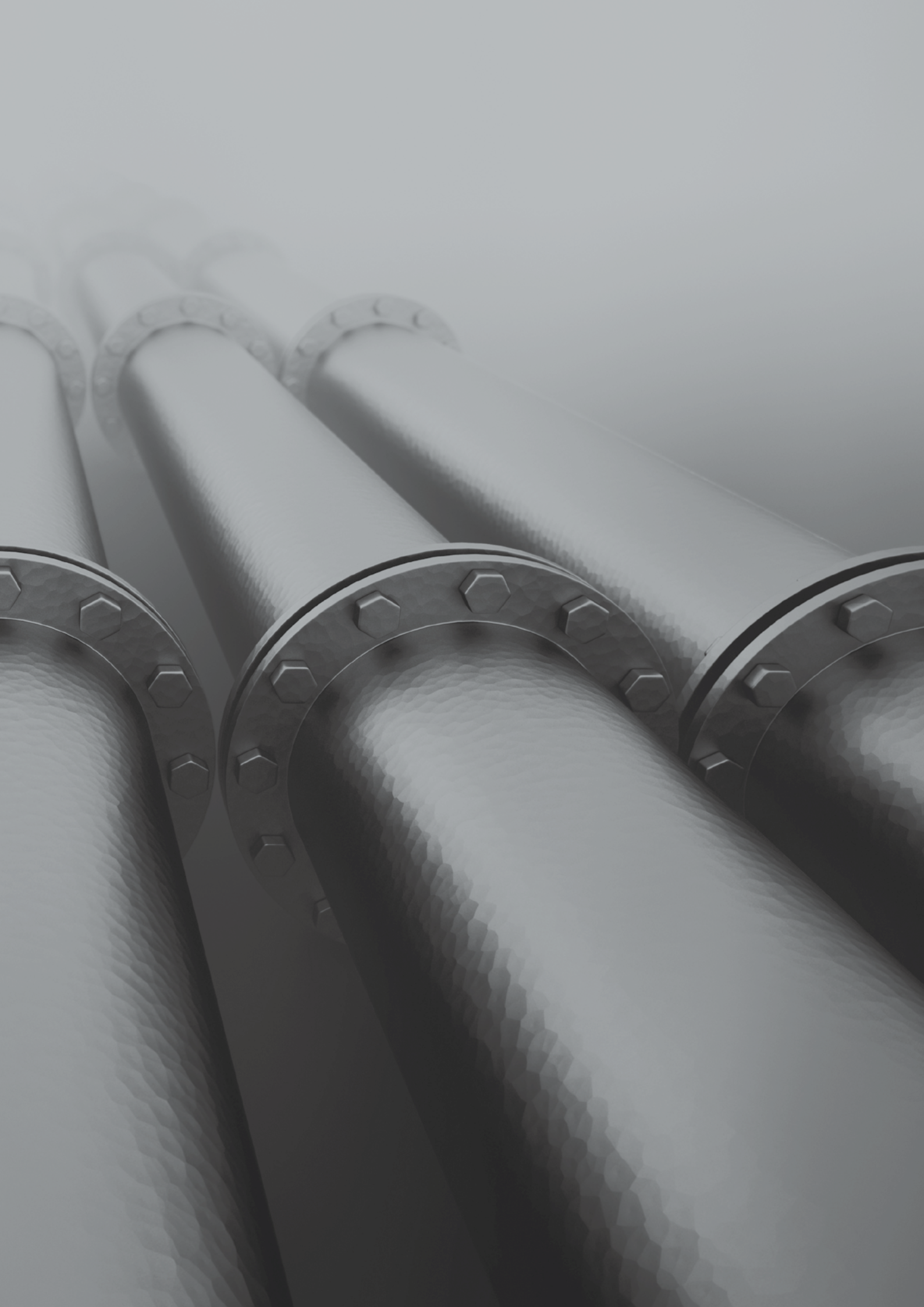
PIPE INDUSTRY



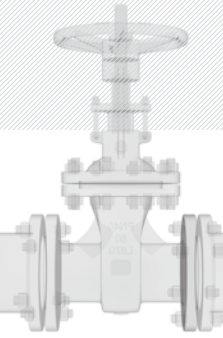


PIPE INDUSTRY

- 01 _ **Edge Milling**
- 02 _ **Bead Trimming**
- 03 _ **Pipe End Machining**
- 04 _ **Pipe Cutting-off Machining**
- 05 _ **Manufacturing Process**



PIPE INDUSTRY



Contents

PIPE INDUSTRY

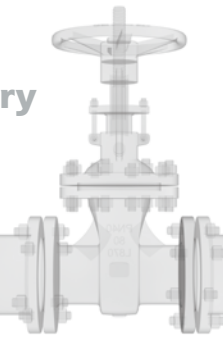
Part 1

**Pipe Structural
Components and
Applicable Tools**

1	Edge Milling	006
2	Bead Trimming	008
3	Pipe End Machining	010
4	Pipe Cutting-off Machining	012
5	Manufacturing Process	014



Pipe
Industry



PIPE INDUSTRY

Part 2

Application Example

1	Edge Milling	018
2	End Facing	020

PIPE INDUSTRY

Part 3

Product Details

1	Edge Milling	022
2	Bead Removal Inserts	025
3	Chamfer Inserts	031



PIPE INDUSTRY

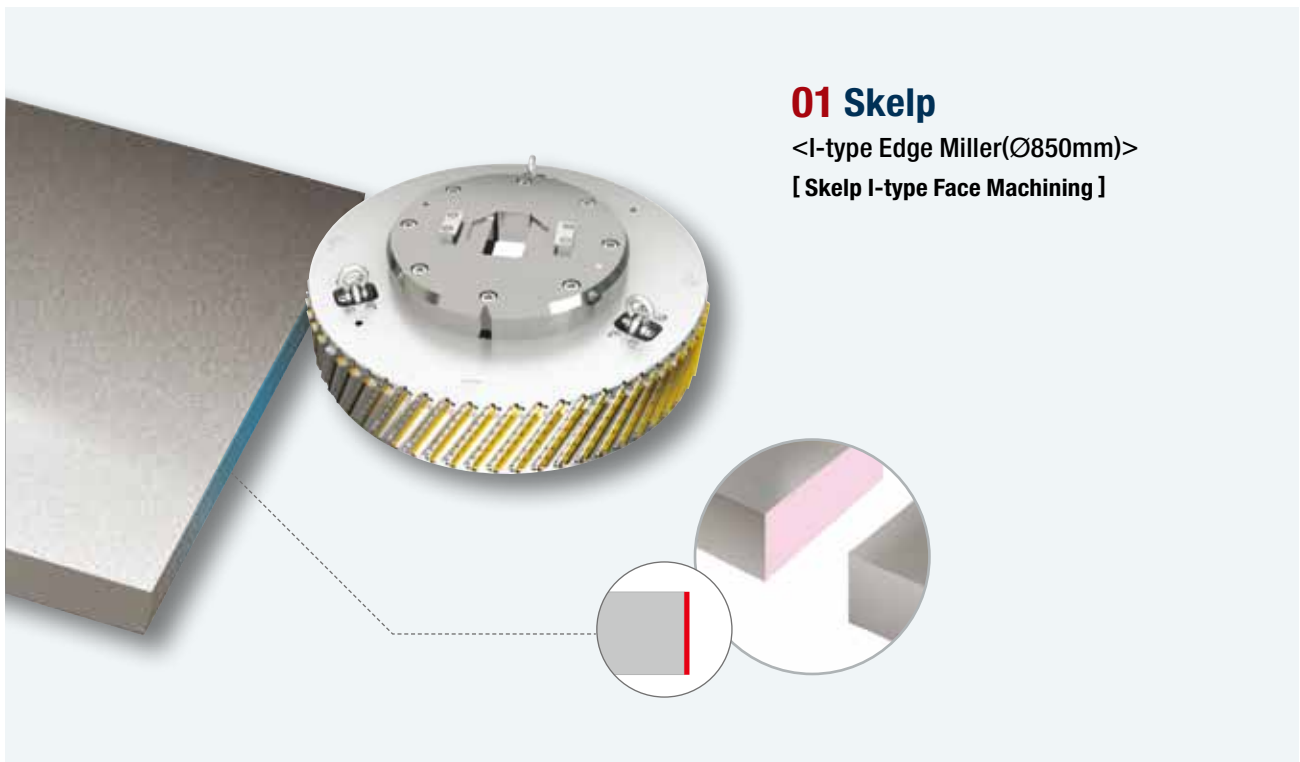
Part 1

PIPE INDUSTRY

Part 1

Pipe Structural Components and Applicable Tools

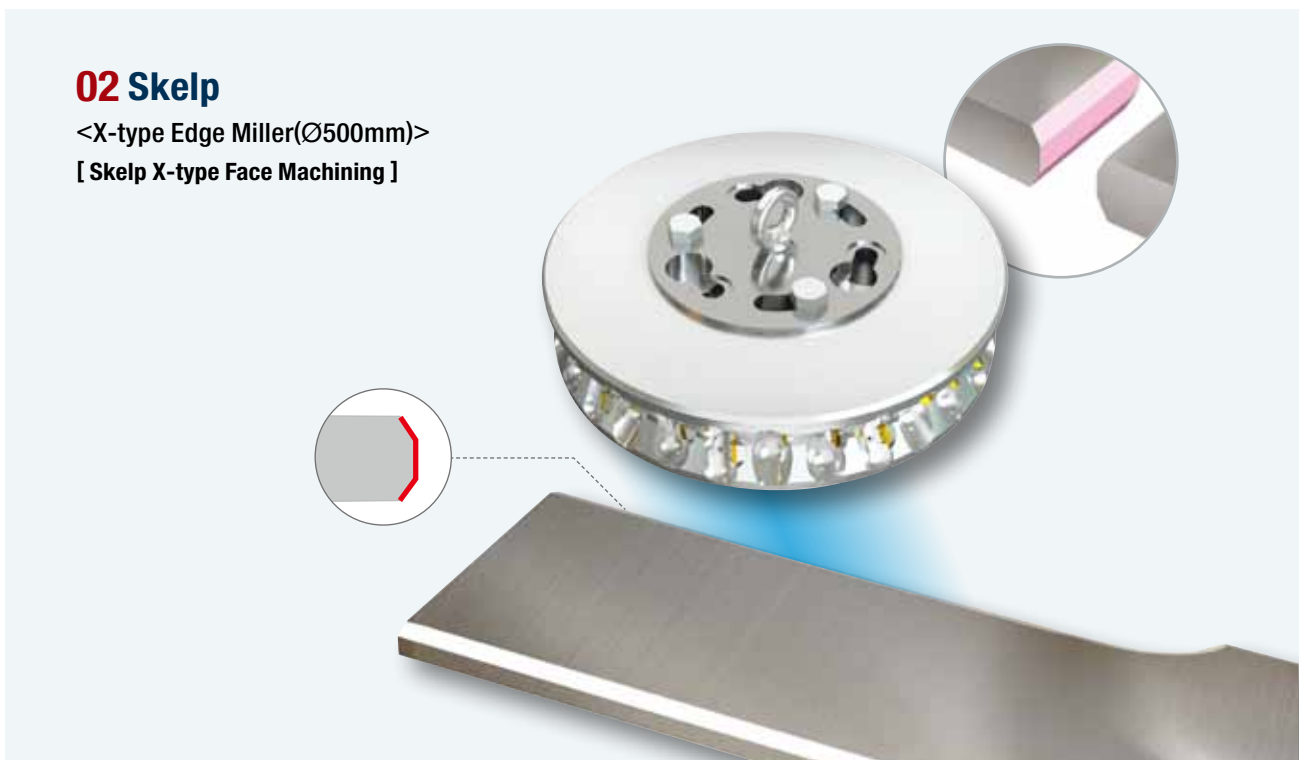
01	Edge Milling	006
02	Bead Trimming	008
03	Pipe End Machining	010
04	Pipe Cutting-off Machining	012
05	Manufacturing Process	014

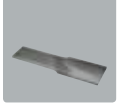


Pipe Industry

1

Edge Milling

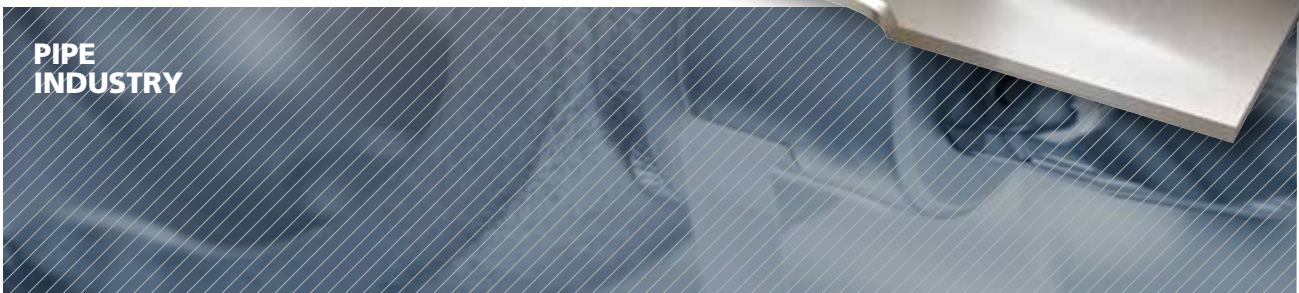




03 Skelp

<Special type Edge Miller>

[Special Edge Machining]



PIPE
INDUSTRY



04 Skelp

<X-type Edge Miller(Ø350mm)>

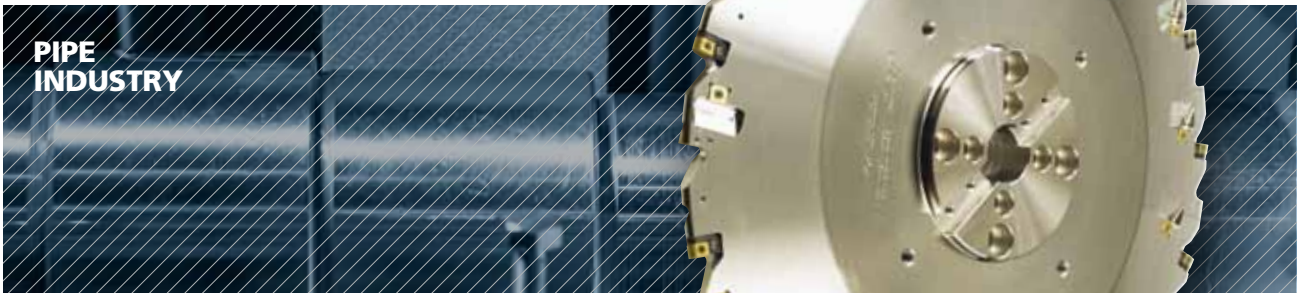
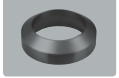
[Skelp X-type Face Machining]



Pipe Industry

2 Bead Trimming





**PIPE
INDUSTRY**

03 Pipe Welding Part Machining Process

[Welding Part Machining]

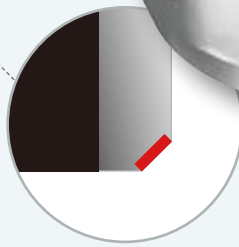
Milling cutter with special long shim



01 Pipe End Chamfer

[Pipe End Machining Step 1]

Special cutters for chamfering

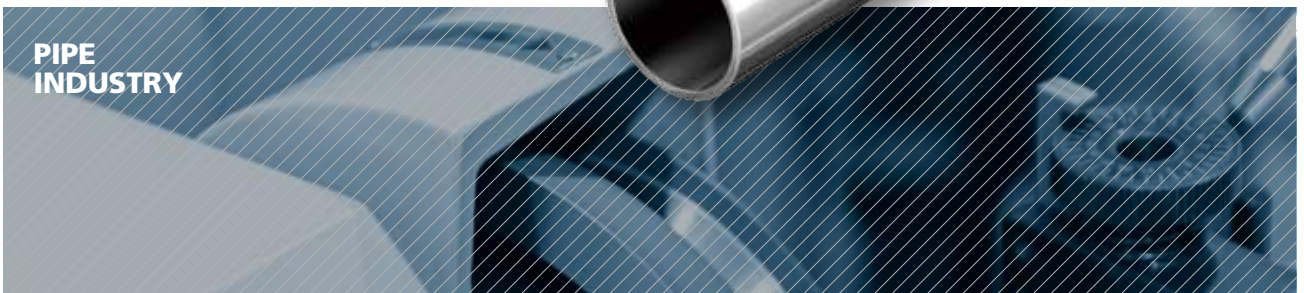
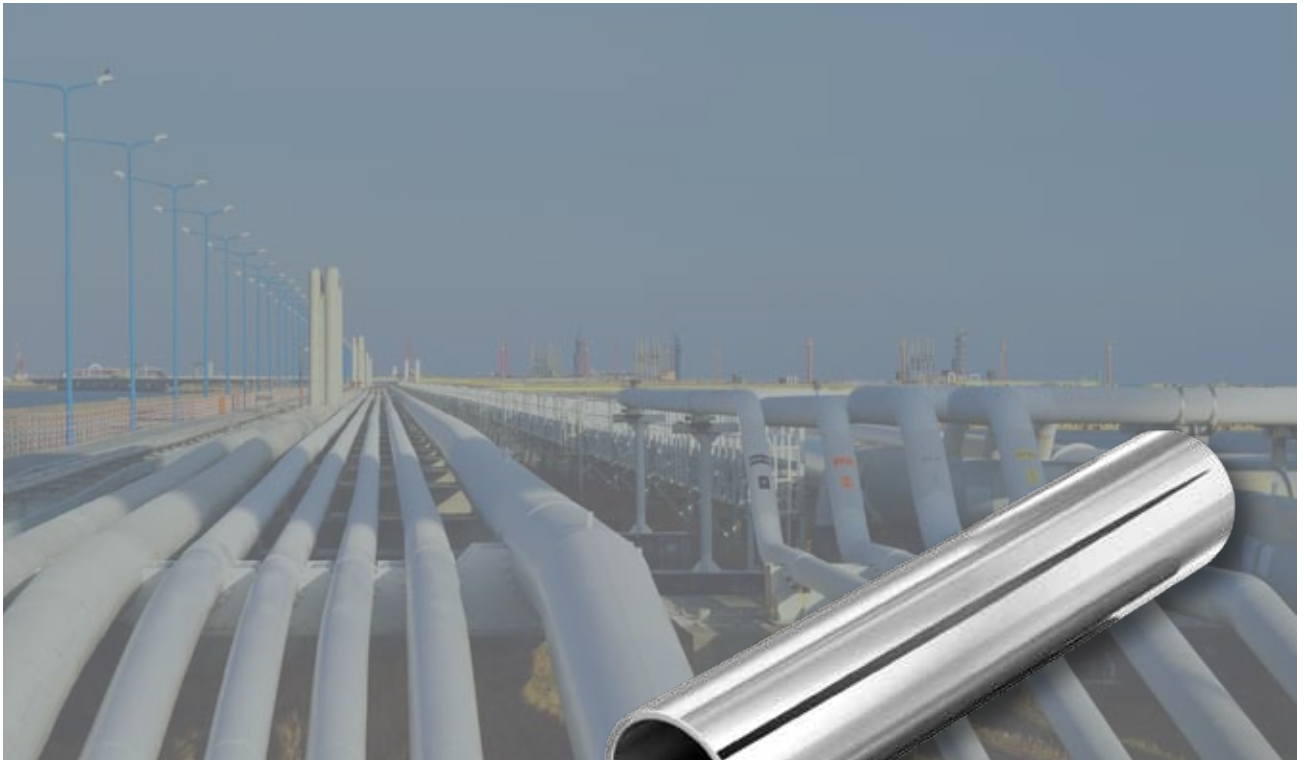


Pipe Industry

3

Pipe End Machining (End Facing)



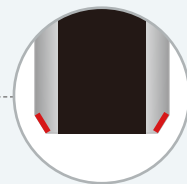
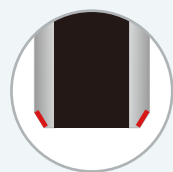


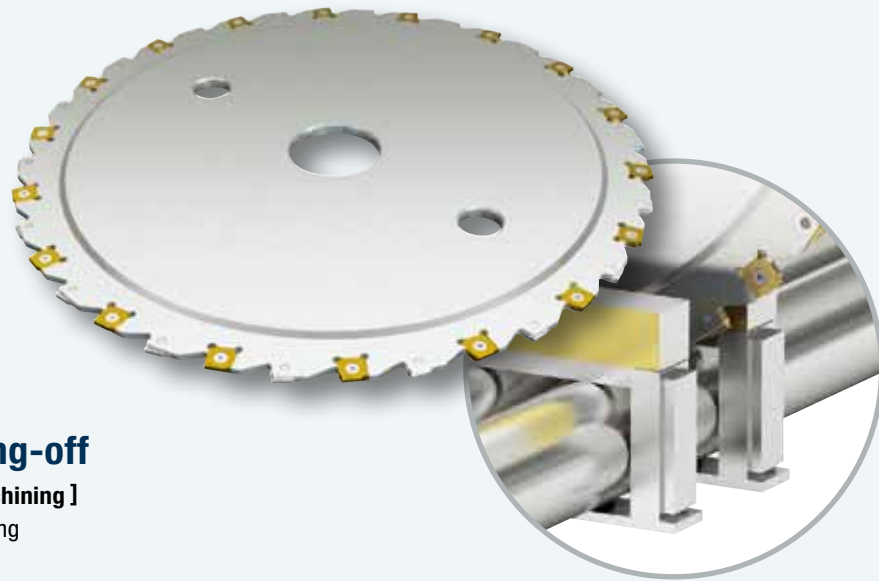
PIPE
INDUSTRY

02 Pipe End Chamfer

[Pipe End Machining Step 2]

Special cutters for chamfering





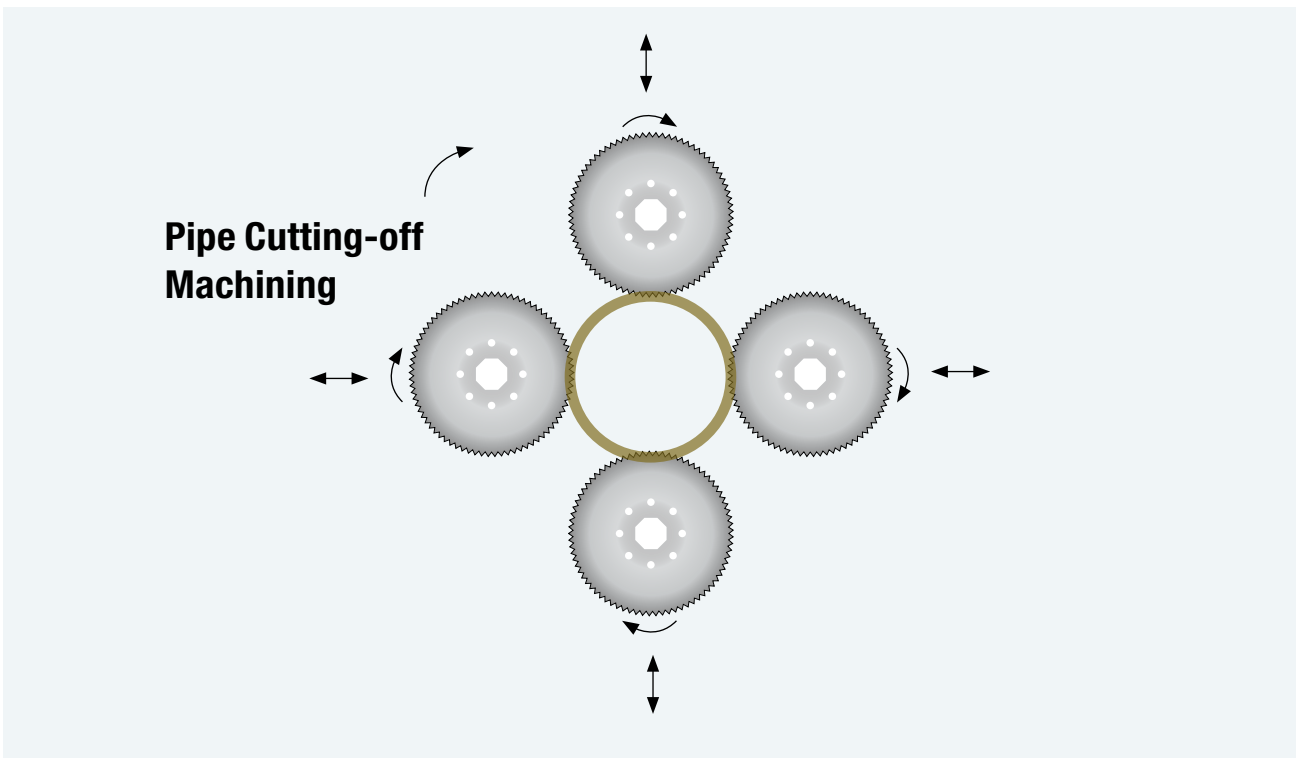
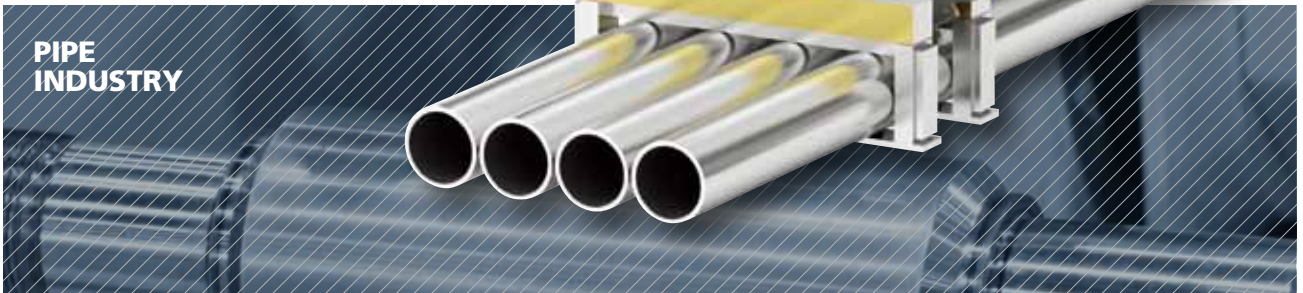
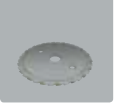
01 Pipe Cutting-off
[Pipe Cutting-off Machining]
Special cutters for slitting

Pipe Industry

4

Pipe Cutting-off Machining





Roll Bending type > Steel Plate Edge Milling

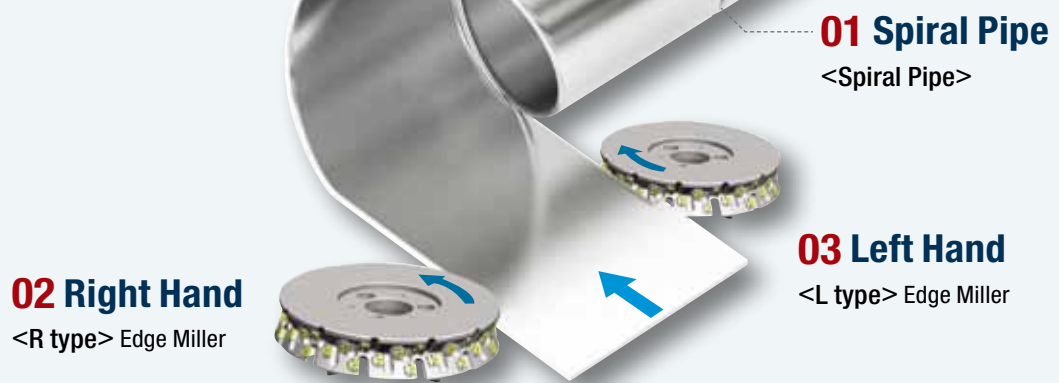


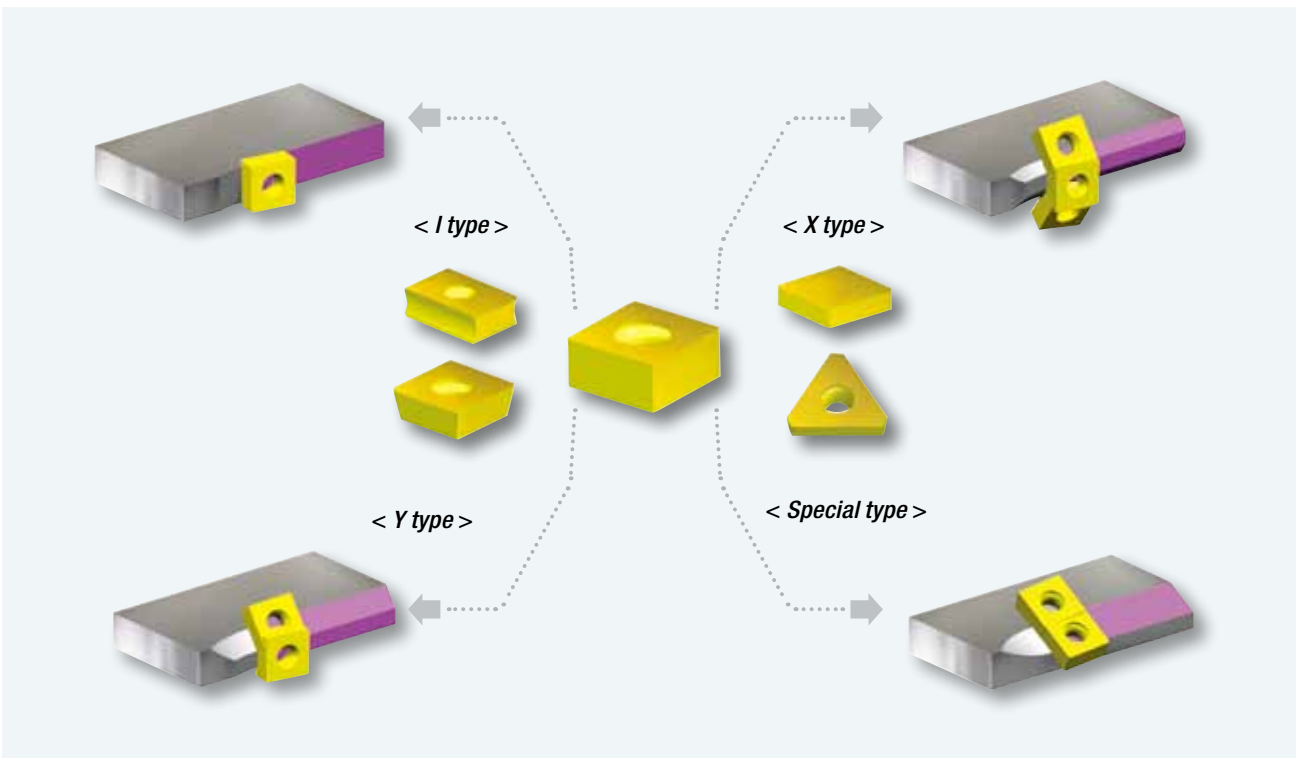
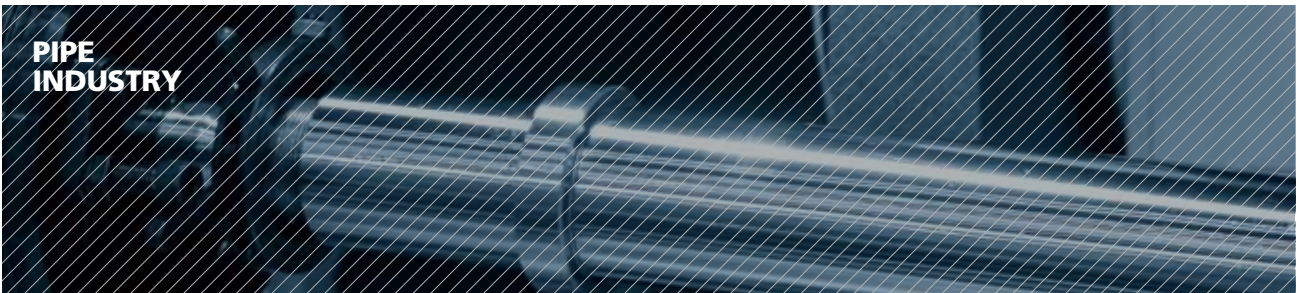
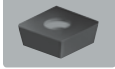
Pipe Industry

5

Manufacturing Process

Spiral type > Hot Coil Skelp Edge Milling







PIPE INDUSTRY

Part 2

PIPE INDUSTRY

Part 2

Application Example



01 Edge Milling

018

02 End Facing

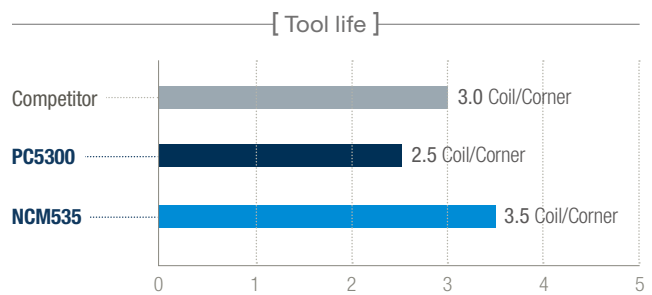
020



Edge Milling

Application Example 1

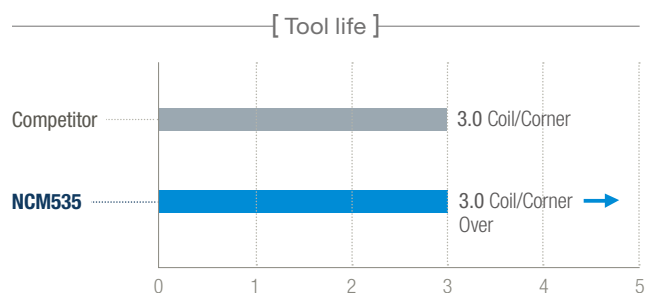
Cutting conditions		
Insert	TPEW3106ZS-IN	
Grade	NCM535, PC5300	
Workpiece	API X83 (Ø850, 65t)	
Application	Steel Pipe t : 12.5	
Cutting Condition	Cutting speed	n = -
	Feed	f = 3 (m/min)
	Depth of cut	ap = 6~12 (mm)
Tool Failure	Wear	



Edge Milling

Application Example 2

Cutting conditions		
Insert	TPEW3106ZS-IN	
Grade	NCM535	
Workpiece	API X52 (Ø650, 68t)	
Application	Steel Pipe t : 12.5	
Cutting Condition	Cutting speed	n = -
	Feed	f = 3 (m/min)
	Depth of cut	ap = 6~12 (mm)
Tool Failure	Wear	

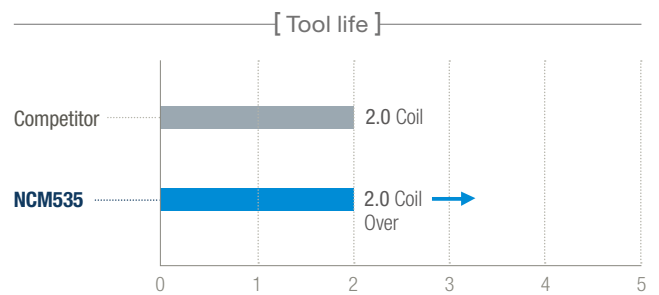




Edge Milling

Application Example 3

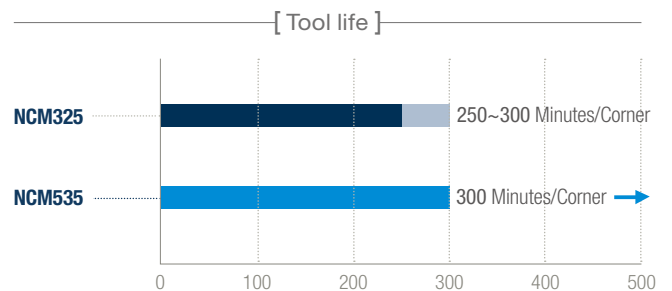
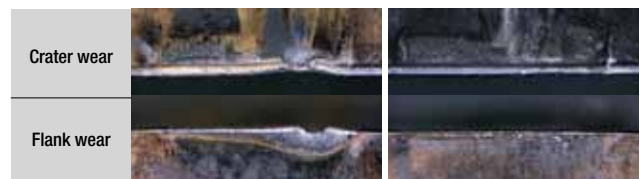
Cutting conditions		
Insert	LNMN500604	
Grade	NCM535	
Workpiece	PL-52-LHRE 145660	
Application	Oil Pipeline, Pipe t : 9.15	
Cutting Condition	Cutting speed	n = 280(rpm)
	Feed	f = 24 (m/min)
	Depth of cut	ap = 3.2~5.9 (mm)
Tool Failure	Wear	



End Facing

Application Example 1

Cutting conditions		
Insert	TPKR2204PDR-MX	
Grade	NCM325, NCM535	
Workpiece	API X55	
Application	Steel Pipe (Ø60.3, 4.7t)	
Cutting Condition	Cutting speed	n = 350~450(rpm)
	Feed	fn = 0.6 (mm/rev)
	Depth of cut	ap = 2~4 (mm)
Tool Failure	Wear	

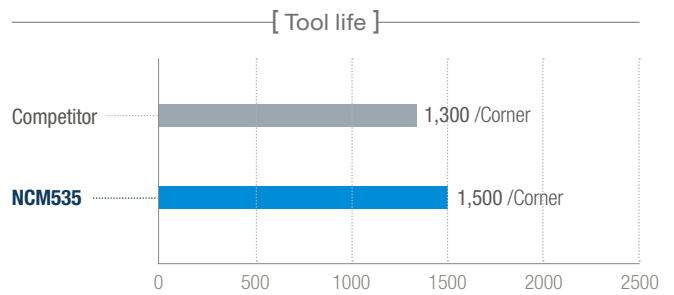




End Facing

Application Example 2

Cutting conditions		
Insert	TPMR160408-MT	
Grade	NCM535	
Workpiece	STKM (Ø60.2)	
Application	Steel Pipe t : 1.2	
Cutting Condition	Cutting speed	$n = 1400(\text{rpm})$
	Feed	$f_n = 0.2 (\text{mm/min})$
	Depth of cut	$a_p = 0.5 (\text{mm})$
Tool Failure	Wear	



PIPE INDUSTRY

Part 3

Product Details

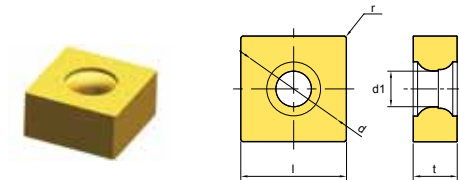
01 Edge Milling 022

02 Bead removal Inserts 025

03 Chamfer Inserts 031

Edge Milling

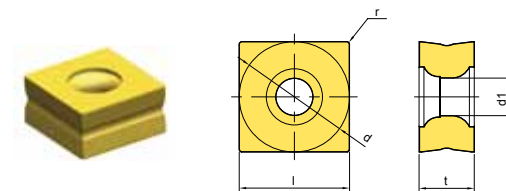
SNHQ



(mm)

Designation	l	d	t	d1	r
SNHQ150704S	15.875	15.875	7.94	5.8	0.4
SNHQ190704S	19.05	19.05	7.94	6.4	0.4

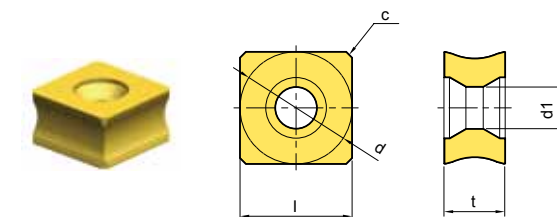
KES



(mm)

Designation	l	d	t	d1	r
KES1507-MXR	15.875	15.875	7.94	5.8	0.6

SOCX



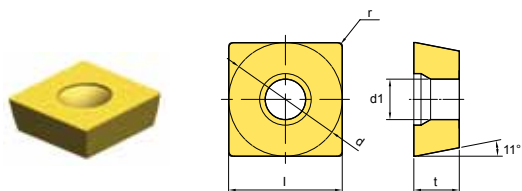
(mm)

Designation	l	d	t	d1	r
SOCX1810ZZ	18.3	18.3	10	6.9	-



Edge Milling

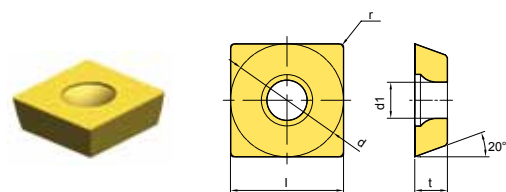
SPEW



(mm)

Designation	l	d	t	d1	r
SPEW190606-BY	19	19	6.35	6.6	0.6

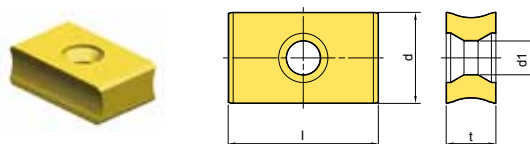
SEEW



(mm)

Designation	l	d	t	d1	r
SEEW22	22	22	6.35	5.8	0.3

LOCX

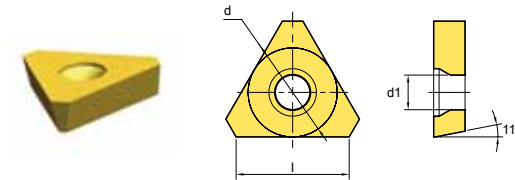


(mm)

Designation	l	d	t	d1	r
LOCX3010Z	30	18.3	10	6.8	-

Edge Milling

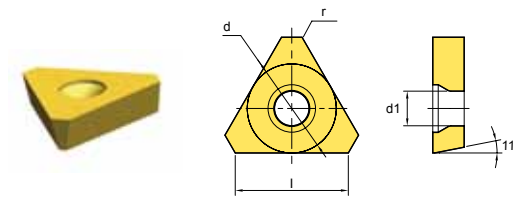
TP□W



(mm)

Designation	l	d	t	d1	r
TPEW3106ZS	22.5	18	6.35	7	-
TPEW33ZZSN-VA	24	19.05	7	6.7	-
TPGW3306Z-CX	24	19.05	7	6.7	-

TP□W



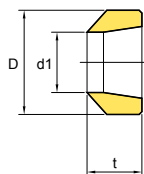
(mm)

Designation	l	d	t	d1	r
TPEW33M715S	26.7	18.953	7	6.7	1.6
TPEW33M726S	24	19.05	7	6.7	2.6



Bead Removal Inserts

AR (For Internal)



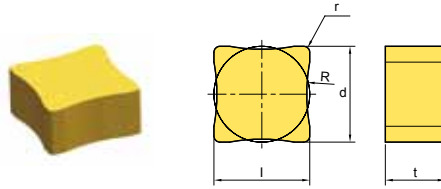
(mm)

Designation	$\varnothing D$	$\varnothing d1$	t
AR 4.5	8	5	4.5
AR 6.5	10	6	4.5
AR 7	13	6	6
AR 8	13	7	6
AR 9	13	8	6
AR 9.5	13	8.5	6
AR 11	19	10	10
AR 12	19	11	10
AR 13	19	11.5	10
AR 14	22	12	12
AR 15	22	13	12
AR 15.5	22	13.5	12
AR 16	22	14	12
AR 17	22	15	12
AR 18	28	14	12
AR 19	35	17	12
AR 20	35	17.5	12
AR 21	35	18	12
AR 22	35	19	12
AR 23	35	20	12
AR 24	35	21	12
AR 25	35	22	12

Designation	$\varnothing D$	$\varnothing d1$	t
AR 26	35	23	12
AR 27	35	24	12
AR 28	35	25	12
AR 30	45	27	15
AR 31	45	28	15
AR 32	45	28.5	15
AR 33	45	29	15
AR 34	45	30	15
AR 35	50	31	15
AR 36	50	32	15
AR 37	50	33	15
AR 38	50	34	15
AR 39	50	35	15
AR 40	50	36	15
AR 41	55	37	18
AR 42	55	38	18
AR 44	55	39	18
AR 46	55	40	18
AR 47	55	43	18
AR 52	65	46	20
AR 56	65	49	20

Bead Removal Inserts

SNMN (For External)



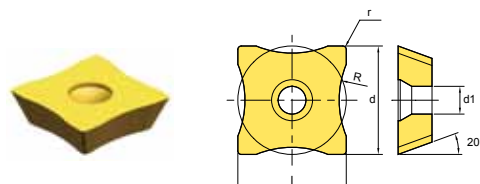
(mm)

Designation	l	d	t	r	R
SNMN1207-8R / SNU452-8R	12.7	12.7	7.94	0.8	8
SNMN1207-10R / SNU452-10R	12.7	12.7	7.94	0.8	10
SNMN1207-12R	12.7	12.7	7.94	0.8	12
SNMN1207-13R / SNU452-13R	12.7	12.7	7.94	0.8	13
SNMN1207-14R / SNU452-14R	12.7	12.7	7.94	0.8	14
SNMN1207-15R / SNU452-15R	12.7	12.7	7.94	0.8	15
SNMN1207-23R / SNU452-23R	12.7	12.7	7.94	0.8	23
SNMN1207-24R / SNU452-24R	12.7	12.7	7.94	0.8	24
SNMN1207-26R	12.7	12.7	7.94	0.8	26
SNMN1207-28R / SNU452-28R	12.7	12.7	7.94	0.8	28
SNMN1207-40R / SNU452-40R	12.7	12.7	7.94	0.8	40
SNMN1207-45R / SNU452-45R	12.7	12.7	7.94	0.8	45
SNMN1207-55R	12.7	12.7	7.94	0.8	55
SNMN1207-80R / SNU452-80R	12.7	12.7	7.94	0.8	80
SNMN1207-90R / SNU452-90R	12.7	12.7	7.94	0.8	90
SNMN1207-100R / SNU452-100R	12.7	12.7	7.94	0.8	100



Bead Removal Inserts

SEGW (For External)

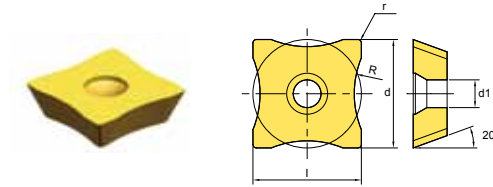


(mm)

Designation	l	d	t	r	R	d1
SEGW 8R	25.4	25.4	7.94	0.8	8	6.5
SEGW 10R	25.4	25.4	7.94	0.8	10	6.5
SEGW 12R	25.4	25.4	7.94	0.8	12	6.5
SEGW 13R	25.4	25.4	7.94	0.8	13	6.5
SEGW 14R	25.4	25.4	7.94	0.8	14	6.5
SEGW 15R	25.4	25.4	7.94	0.8	15	6.5
SEGW 16R	25.4	25.4	7.94	0.8	16	6.5
SEGW 18R	25.4	25.4	7.94	0.8	18	6.5
SEGW 20R	25.4	25.4	7.94	0.8	20	6.5
SEGW 23R	25.4	25.4	7.94	0.8	23	6.5
SEGW 25R	25.4	25.4	7.94	0.8	25	6.5
SEGW 28R	25.4	25.4	7.94	0.8	28	6.5
SEGW 30R	25.4	25.4	7.94	0.8	30	6.5
SEGW 32R	25.4	25.4	7.94	0.8	32	6.5
SEGW 35R	25.4	25.4	7.94	0.8	35	6.5
SEGW 38R	25.4	25.4	7.94	0.8	38	6.5
SEGW 40R	25.4	25.4	7.94	0.8	40	6.5
SEGW 43R	25.4	25.4	7.94	0.8	43	6.5
SEGW 45R	25.4	25.4	7.94	0.8	45	6.5
SEGW 50R	25.4	25.4	7.94	0.8	50	6.5
SEGW 55R	25.4	25.4	7.94	0.8	55	6.5
SEGW 60R	25.4	25.4	7.94	0.8	60	6.5
SEGW 70R	25.4	25.4	7.94	0.8	70	6.5
SEGW 80R	25.4	25.4	7.94	0.8	80	6.5
SEGW 100R	25.4	25.4	7.94	0.8	100	6.5

Bead Removal Inserts

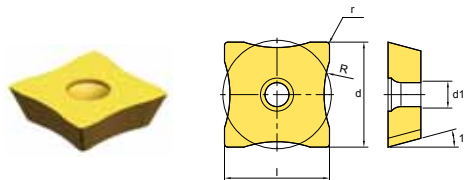
SEGW (For External)



(mm)

Designation	l	d	t	r	R	d1
SEGW54-12R	15.875	15.875	6.35	0.8	12	5.6
SEGW54-16R	15.875	15.875	6.35	0.8	16	5.6
SEGW54-18R	15.875	15.875	6.35	0.8	18	5.6
SEGW54-20R	15.875	15.875	6.35	0.8	20	5.6
SEGW54-25R	15.875	15.875	6.35	0.8	25	5.6
SEGW54-60R	15.875	15.875	6.35	0.8	60	5.6
SEGW54-R15	15.875	15.875	6.35	0.8	15	5.6
SEGW54-R20	15.875	15.875	6.35	0.8	20	5.6
SEGW54-R25	15.875	15.875	6.35	0.8	25	5.6
SEGW54-R30	15.875	15.875	6.35	0.8	30	5.6
SEGW54-R40	15.875	15.875	6.35	0.8	40	5.6
SEGW54-R45	15.875	15.875	6.35	0.8	45	5.6
SEGW54-R50	15.875	15.875	6.35	0.8	50	5.6

SDMX (For External)



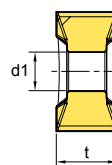
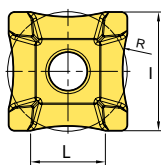
(mm)

Designation	l	d	t	r	R	d1
SDMX85-R16	25.4	25.4	7.94	0.8	16	5.8
SDMX85-R25	25.4	25.4	7.94	0.8	25	5.8
SDMX85-R40	25.4	25.4	7.94	0.8	40	5.8
SDMX85-R50	25.4	25.4	7.94	0.8	50	5.8



Bead Removal Inserts

Designation	l	d	t	r	R	d1
SDMX85-R60	25.4	25.4	7.94	0.8	60	5.8
SDMX85-R70	25.4	25.4	7.94	0.8	70	5.8
SDMX85-R80	25.4	25.4	7.94	0.8	80	5.8
SDMX85-R90	25.4	25.4	7.94	0.8	90	5.8
SDMX85-R100	25.4	25.4	7.94	0.8	100	5.8
SDMX85-R170	25.4	25.4	7.94	0.8	170	5.8
SDMX85-R200	25.4	25.4	7.94	0.8	200	5.8
SDMX85-R300	25.4	25.4	7.94	0.8	300	5.8

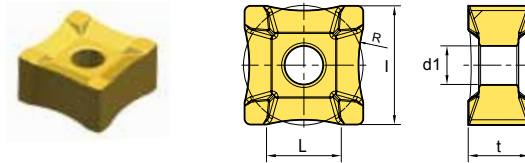
SNMG (For External)

(mm)

Designation	l	L	t	R	d1
SNMG150708-R11	15.875	10	7.94	11	5.16
SNMG150708-R13	15.875	10	7.94	13	5.16
SNMG150708-R15	15.875	10	7.94	15	5.16
SNMG150708-R18	15.875	10	7.94	18	5.16
SNMG150708-R20	15.875	10	7.94	20	5.16
SNMG150708-R22	15.875	10	7.94	22	5.16
SNMG150708-R25	15.875	10	7.94	25	5.16
SNMG150708-R30	15.875	10	7.94	30	5.16
SNMG150708-R35	15.875	10	7.94	35	5.16
SNMG150708-R40	15.875	10	7.94	40	5.16
SNMG190708-R10	19.05	12	8.35	10	8.0
SNMG190708-R12	19.05	12	8.35	12	8.0
SNMG190708-R15	19.05	12	8.35	15	8.0

Bead Removal Inserts

SNMG (For External)

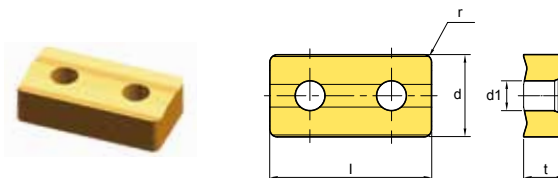


Designation	I	L	t	R	d1
SNMG190708-R18	19.05	12	8.35	18	8.0
SNMG190708-R20	19.05	12	8.35	20	8.0
SNMG190708-R25	19.05	12	8.35	25	8.0
SNMG190708-R27	19.05	12	8.35	27	8.0
SNMG190708-R30	19.05	12	8.35	30	8.0
SNMG190708-R35	19.05	12	8.35	35	8.0
SNMG190708-R40	19.05	12	8.35	40	8.0
SNMG190708-R45	19.05	12	8.35	45	8.0
SNMG190708-R55	19.05	12	8.35	55	8.0
SNMG190708-R60	19.05	12	8.35	60	8.0
SNMG190708-R80	19.05	12	8.35	80	8.0



Chamfer Inserts

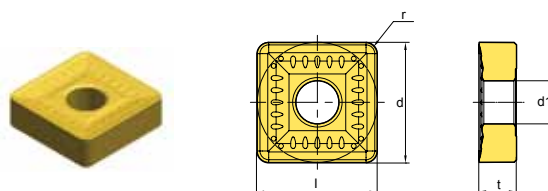
LNUX



(mm)

Designation	l	d	t	d1	r
LNUX400624	40	25.4	6.35	9.2	2.4
LNUX400924	40	25.4	9.52	9.2	2.4
LNUX501224-BF	50	25.4	12.7	9.2	2.4
LNUX601224-BF1	60	25.4	12.7	9.2	2.4
LNUX701224EN	70	25.4	12.7	9.2	2.4

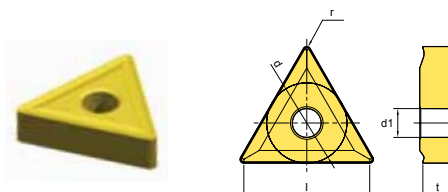
SNMM



(mm)

Designation	l	d	t	d1	r
SNMM250724-GH	25.4	25.4	7.94	9.12	2.4

TNMM

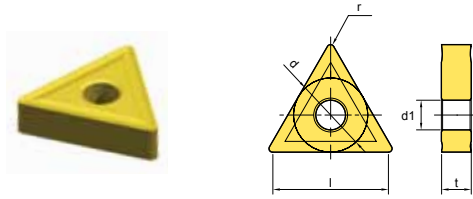


(mm)

Designation	l	d	t	d1	r
TNMM440912Z	40	25.4	9.52	9.1	1.2
TNMM440912Z-B	40	25.4	9.52	9.1	1.2

Chamfer Inserts

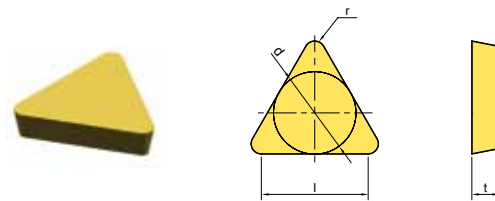
TNMG



(mm)

Designation	l	d	t	d1	r
TNMG270612KP-B25	23	15.875	6.35	6.35	1.2
TNMG330704-B25	31	19.05	7.94	7.9	0.4
TNMG330716KP-B25	27	19.05	7.94	7.9	1.6

TPUN



(mm)

Designation	l	d	t	d1	r
TPUN330624T	24.6	19.05	6.35	-	2.4

Pipe Industry





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