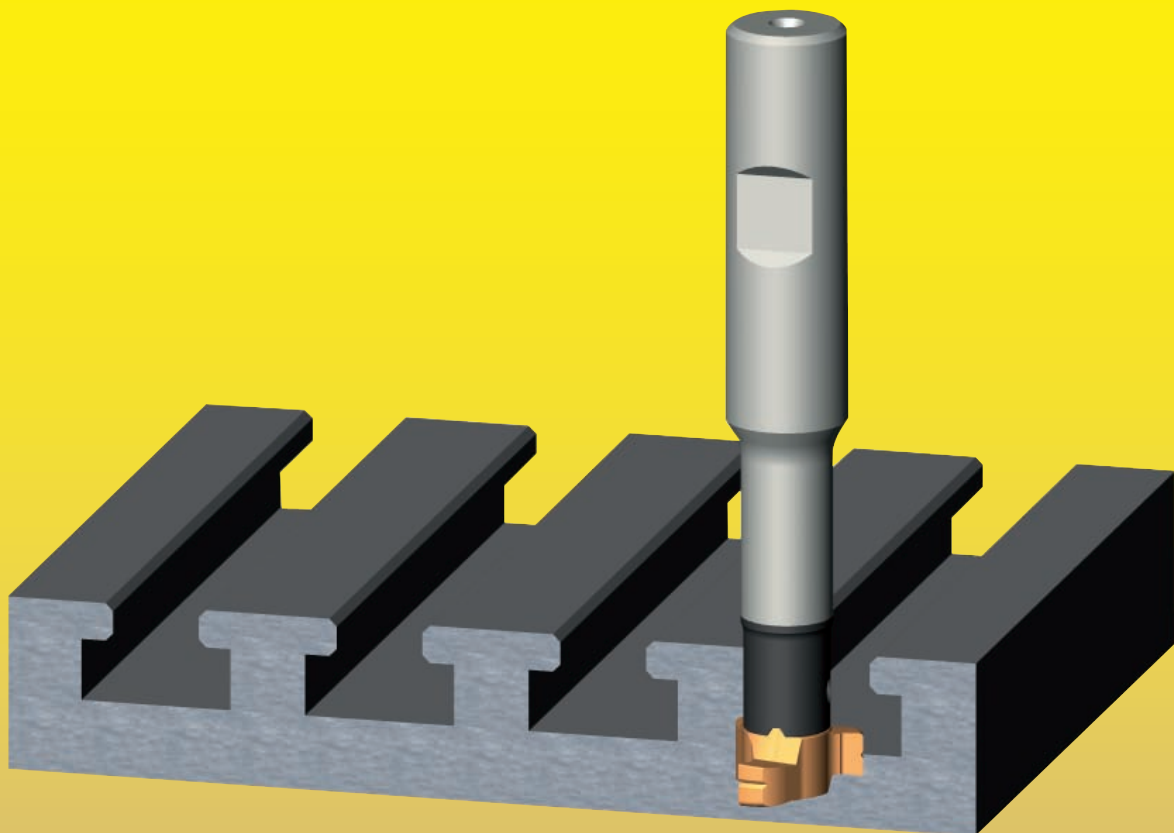


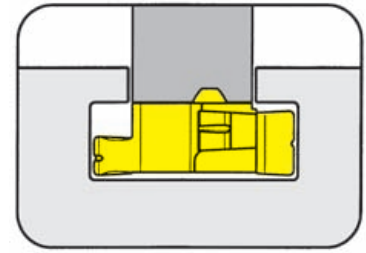
**Excellent removal of chips, flushed by
through coolant supply.**



G

MILLING SHANK Type

MU311

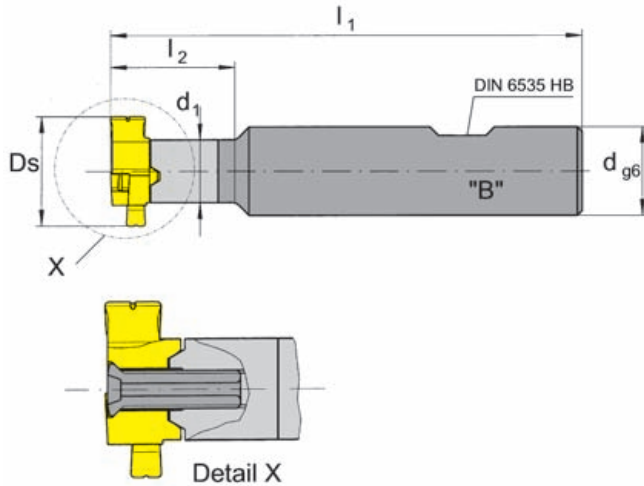


Cutting edge \varnothing .669"

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert

Type 311



Picture = right hand cutting version

Part number	l_1	l_2	d_1	d
MU311.0625.00B	3.543	.984	.354	.625

Further sizes upon request

Ds see inserts

Dimensions in inch

Ordering note:

Milling cutter shanks with damaged seating can be repaired by HORN.

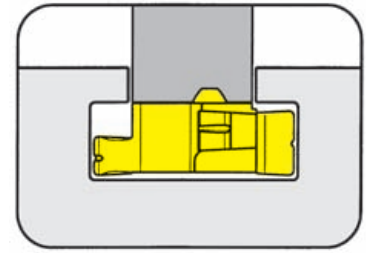
For torque specifications of the screw, please see Technical Instructions.

Spare parts

Milling shank	Screw	TORX PLUS® Wrench
MU311.0625.00B	4.16T15KP	T15PQ

MILLING SHANK Type

M311



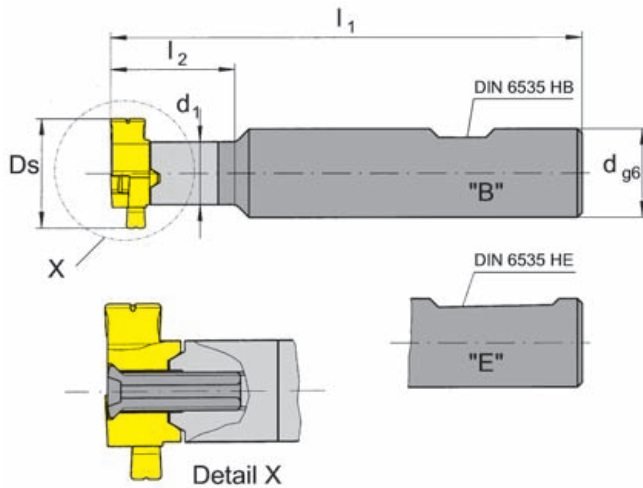
Cutting edge \varnothing

Ds .669" (17.0 mm)

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert

Type 311



Picture = right hand cutting version

Part number	l_1	l_2	d_1	d	Form
M311.0016.00B	90	25	9	16	B
M311.0016.00E	90	25	9	16	E

Further sizes upon request

Ds see inserts

Dimensions in mm

Ordering note:

Milling cutter shanks with damaged seating can be repaired by HORN.

For torque specifications of the screw, please see Technical Instructions.

Spare parts

Milling shank	Screw	TORX PLUS® Wrench
M311.0016.00...	4.16T15KP	T15PQ



MILLING OF T-SLOTS

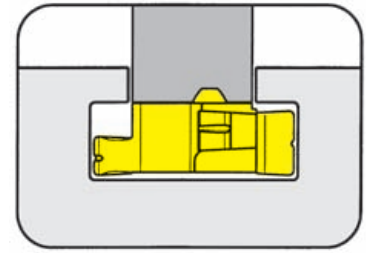


INSERT Type

311

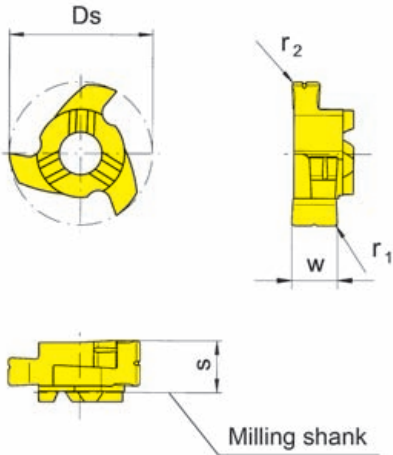
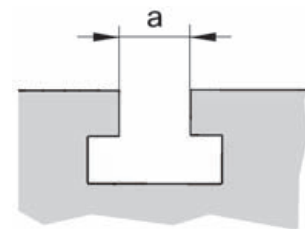
T-Slots DIN 650
Cutting edge \emptyset

a .394"
Ds .669"



for use with Milling shank

Type M311



Picture = right hand cutting version

Part number	Ds	w	s	r ₁	a	Carbide grades	
						MG12	TI25
311.1016.00	.669	.283	.303	.020	.394		▲
						P	•
						M	•
						K	•
						N	•
						S	•
						H	

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

Dimensions in inch

Further sizes upon request

Carbide grades

G

CHAMFERING OF T-SLOTS

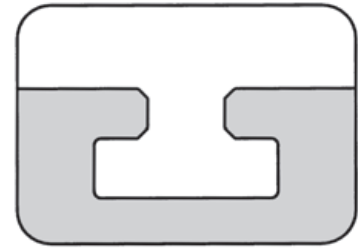


INSERT Type

311

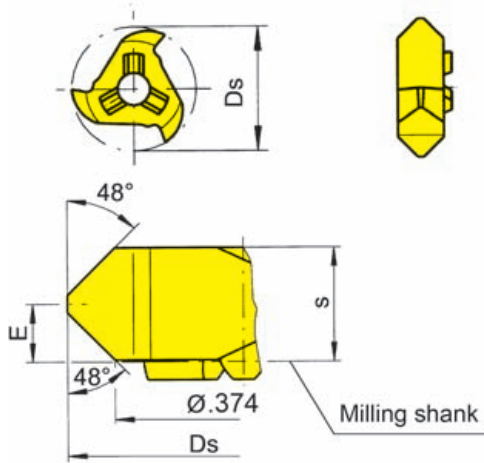
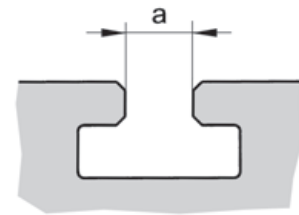
T-Slots DIN 650
Cutting edge \emptyset

a .394/.472/.551"
Ds .622"



for use with Milling shank

Type M311



Picture = right hand cutting version

Part number	Ds	s	E	Carbide grades		
				MG12	TN35	TI25
311.4216.00	.622	.234	.118			▲
▲ on stock Δ 4 weeks				P		•
● main recommendation				M		•
○ alternative recommendation				K		•
■ uncoated grades				N		•
■ coated grades				S		•
■ brazed/Cermet				H		

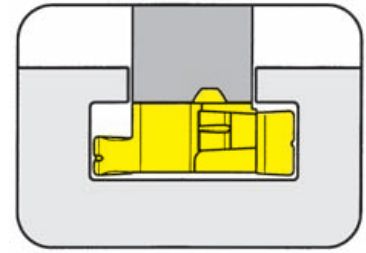
Dimensions in inch

Further sizes upon request



MILLING SHANK Type

MU313

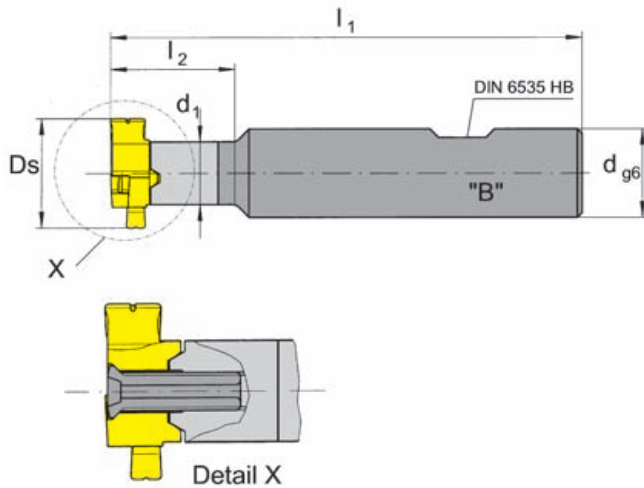


Cutting edge \varnothing .787"

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert

Type 313



Picture = right hand cutting version

Part number	l_1	l_2	d_1	d
MU313.0625.00B	3.661	1.181	.453	.625

Further sizes upon request

Ds see inserts

Dimensions in inch

Ordering note:

Milling cutter shanks with damaged seating can be repaired by HORN.

For torque specifications of the screw, please see Technical Instructions.

Spare parts

Milling shank	Screw	TORX PLUS® Wrench
MU313.0625.00B	5.13T20KP	T20PQ

MILLING SHANK Type

M313

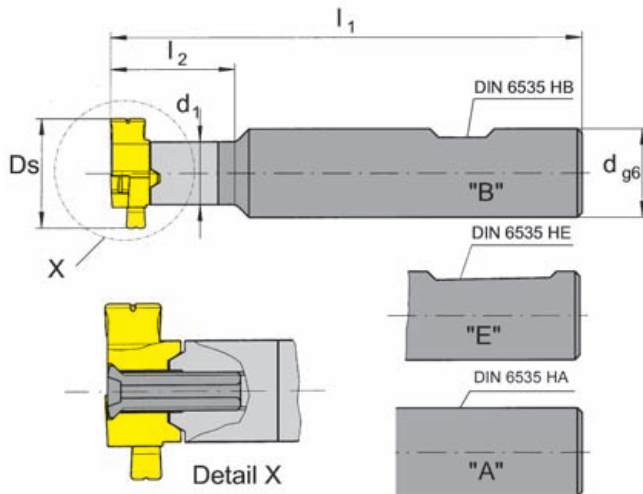
Cutting edge \varnothing

Ds .787" (20.0 mm)

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert

Type 313



Picture = right hand cutting version

Part number	l_1	l_2	d_1	d	Form
M313.0016.00A	93	30	11.5	16	A
M313.0016.00B	93	30	11.5	16	B
M313.0016.00E	93	30	11.5	16	E

Further sizes upon request

Ds see inserts

Dimensions in mm

Ordering note:

Milling cutter shanks with damaged seating can be repaired by HORN.

For torque specifications of the screw, please see Technical Instructions.

Spare parts

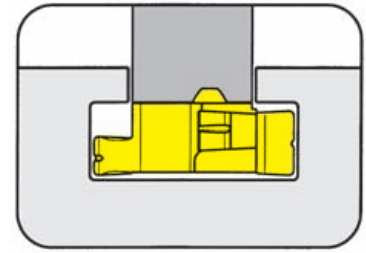
Milling shank	Screw	TORX PLUS® Wrench
M313.0016.00A	5.14T20P	T20PQ
M313.0016.00B/00E	5.13T20KP	T20PQ

INSERT Type

313

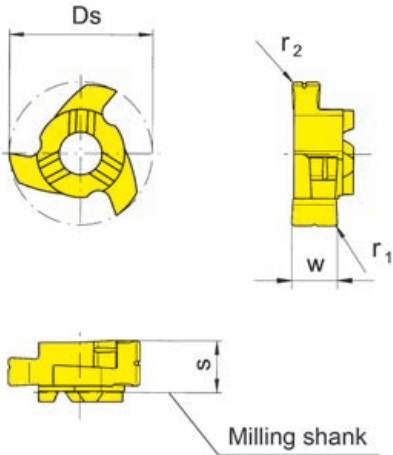
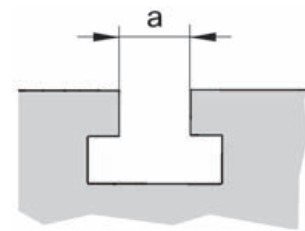
T-Slots DIN 650
Cutting edge \emptyset

a .472"
Ds .787"



for use with Milling shank

Type M313



Picture = right hand cutting version

Part number	Ds	w	s	r ₁	a	Carbide grades	
						MG12	TI25
313.1219.00	.787	.323	.343	.020	.472		▲
						P	•
						M	•
						K	•
						N	•
						S	•
						H	

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

Dimensions in inch

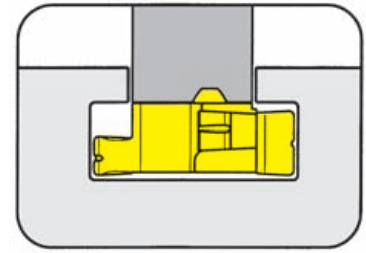
Further sizes upon request

Carbide grades

G

MILLING SHANK Type

MU328

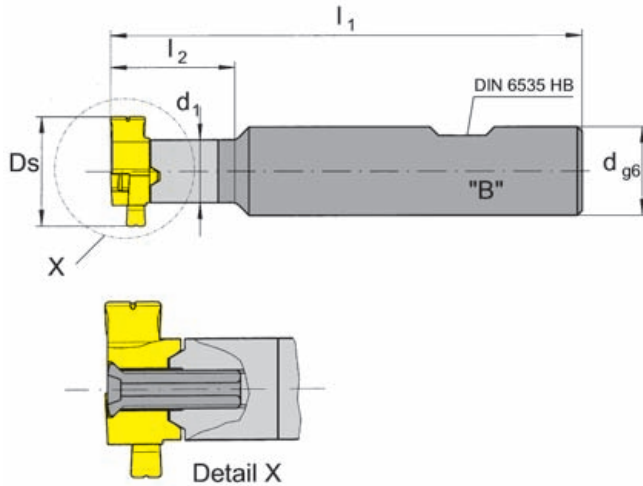


Cutting edge \varnothing .945"

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert

Type 328



Picture = right hand cutting version

Part number	l_1	l_2	d_1	d
MU328.0750.00B	4.094	1.378	.531	.750

Further sizes upon request

Ds see inserts

Dimensions in inch

Ordering note:

Milling cutter shanks with damaged seating can be repaired by HORN.

For torque specifications of the screw, please see Technical Instructions.

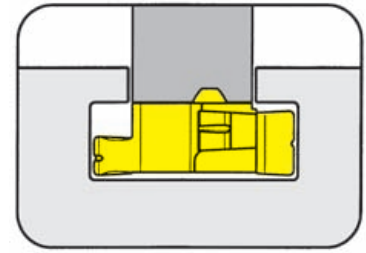
Spare parts

Milling shank	Screw	TORX PLUS® Wrench
MU328.0750.00B	5.13T20KP	T20PQ



MILLING SHANK Type

M328

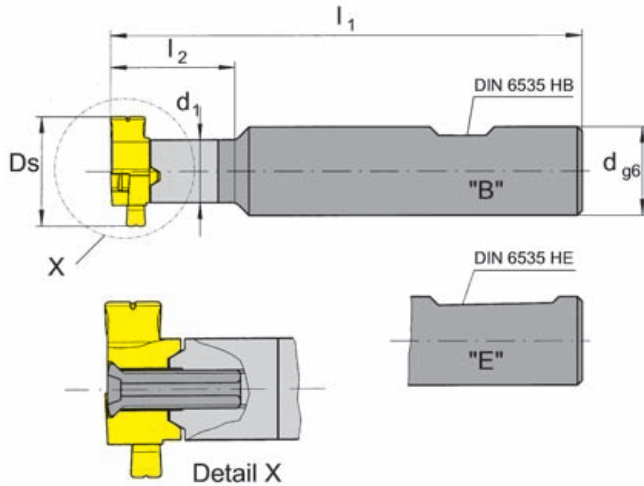


Cutting edge \varnothing Ds .945" (24.0 mm)

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert

Type 328



Picture = right hand cutting version

Part number	l_1	l_2	d_1	d	Form
M328.0020.00B	104	35	13.5	20	B
M328.0020.00E	104	35	13.5	20	E

Further sizes upon request

Dimensions in mm

Ordering note:

Milling cutter shanks with damaged seating can be repaired by HORN.

For torque specifications of the screw, please see Technical Instructions.

Spare parts

Milling shank	Screw	TORX PLUS® Wrench
M328.0020.00...	5.13T20KP	T20PQ

MILLING OF T-SLOTS

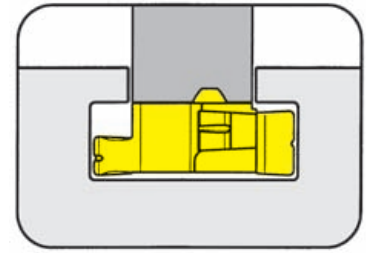


INSERT Type

328

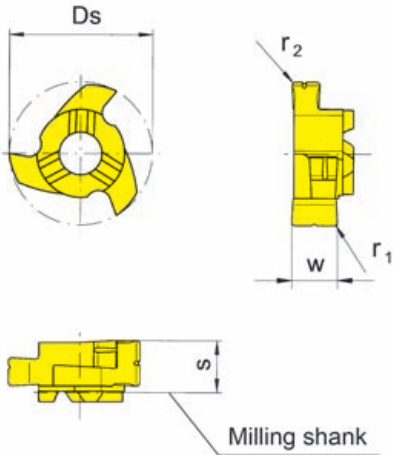
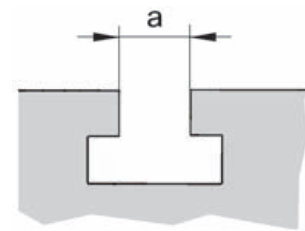
T-Slots DIN 650
Cutting edge \emptyset

a .551"
Ds .945"



for use with Milling shank

Type M328



Picture = right hand cutting version

Part number	Ds	w	s	r ₁	a	Carbide grades	
						MG12	TI25
328.1423.00	.945	.362	.386	.020	.551		▲
						P	•
						M	•
						K	•
						N	•
						S	•
						H	

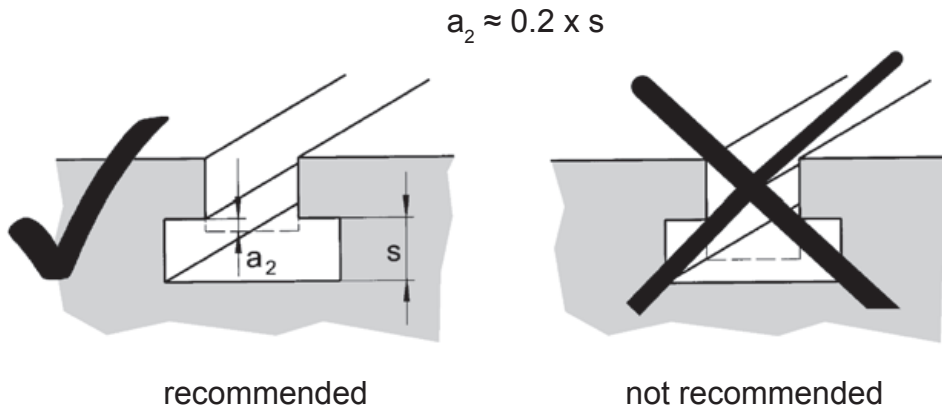
- ▲ on stock Δ 4 weeks
- main recommendation
- alternative recommendation
- uncoated grades
- coated grades
- brazed/Cermet

Dimensions in inch

Further sizes upon request



Application Technology



G

CUTTING DATA

MILLING OF T-SLOTS

Workpiece material	Cutting material	v_c [sfm]	$f_z = \text{IPT}$ Ds .669"	$f_z = \text{IPT}$ Ds .787"-.945"
Carbon steel	TI25	650 - 980	.0012 - .0025	.0020 - .0031
Alloyed steel	TI25	460 - 720	.0008 - .0016	.0012 - .0020
Grey cast iron	TI25	330 - 520	.0012 - .0025	.0020 - .0039

CUTTING DATA

CHAMFERING OF T-SLOTS

Workpiece material	Cutting material	v_c [sfm]	$f_z = \text{IPT}$
Carbon steel	TI25	980 - 1300	.0051 - .0083
Alloyed steel	TI25	590 - 980	.0039 - .0051
Grey cast iron	TI25	460 - 790	.0063 - .0106

The cutting data is only valid for standard carbide toolholders (shanks) listed in this chapter.