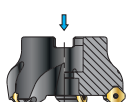
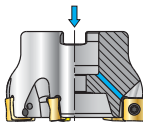
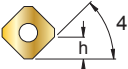
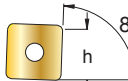
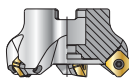
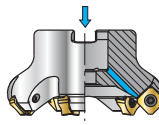
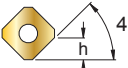
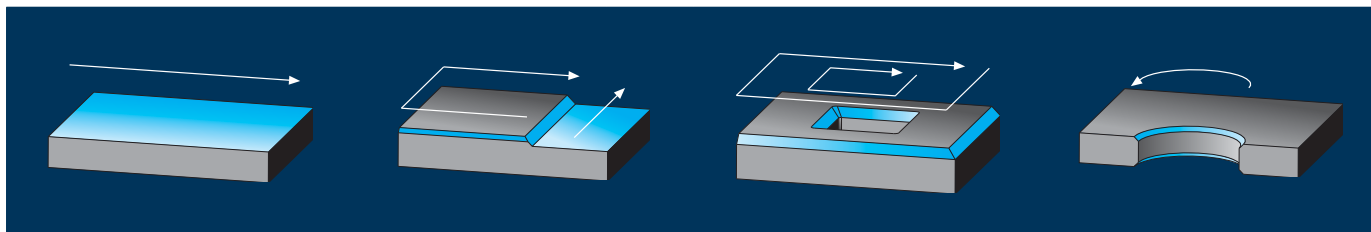
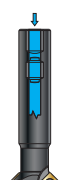
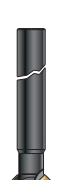
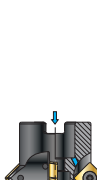
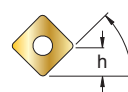
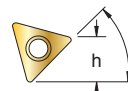
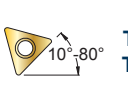
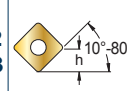
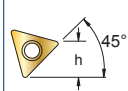
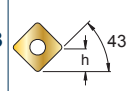




S406 Pag. B 158		S409 Pag. B 158		S8801-8W Pag. B 164			
							
S 406W .. 09		S 409W .. 09 S 409WF .. 09 S 409GW .. 09		S 8801-8W .. 12			
 SD..0903		h = 4		 SN..1206		h = 11,5	
S438		Pag. B 160					
		ØD = 50 - 315					
S 438 .. 13 S 438F .. 13 S 438G .. 13							
 SE..13T3		h = 6					
S4501		Pag. B 162					
		ØD = 50 - 250					
S 4501-8W .. 12							
 SN..1206		h = 6					

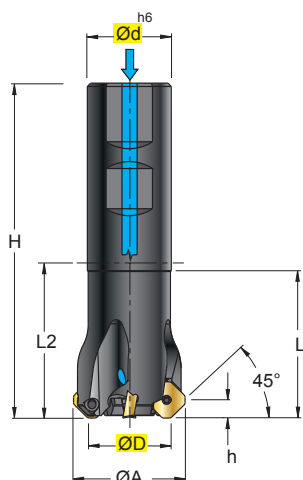


S676 Pag. B 166		S678 Pag. B 166			
	ØD = 9 - 32		ØD = 9 - 32		ØD = 40 - 50
S 676W..		S 676XLZ ..		S 678W .. 12	
	45° h	SP..0603 SP..09T3 SP..1204	h = 4,0 h = 5,8 h = 8,0		
S616 Pag. B 167					
	ØD = 16 30°		ØD = 1,2 - 25 45°		ØD = 5,4 - 17 60°
S 616.30 ..		S 616.45 .. S 6165XLZ.4 ..		S 616.60 .. S 616XLZ.60 ..	
	30° 45° 60° h	TC..1102 TC..16T3 TC..2204	h = 6,9/9,0 h = 7,3/13,0 h = 13,8		
S618.3 Pag. B 168		S618.4 Pag. B 169			
	ØD = 4,9 - 23,8		ØD = 7,8 - 27,2		
S 618 ..11.3 S 618 ..16.3		S 618 ..12.4			
	10°-80° h		10°-80° h		
TC..1102 TC..16T3		SC..1204			
S613 Pag. B 170		S614 Pag. B 171			
	ØD = 0 45°		ØD = 0 43°		
S 613.45W-0-16		S 614.45W-0-12			
	45° h		43° h		
TC..16T3 h = 10		SC..1204 h = 7,8			

S 406W .. 09

Ø 06-32

γ_p 0°/+12°
 γ_f -11°/-6,5°
 γ_o -8°/+4°

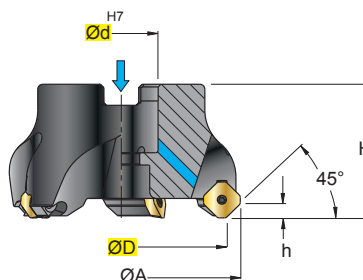
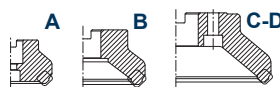


S 409W .. 09 S 409WF .. 09 S 409GW .. 09

Ø 32-100

γ_p +12°
 γ_f -6,5°/-6°
 γ_o +4°/+5°

ISO 6462 ...



SDHW 0903
.Z42



SDHT 0903
.L51



SDNT 0903
.L54



SDKT 0903
.L56

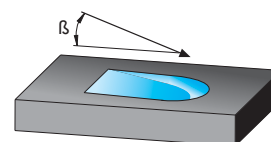
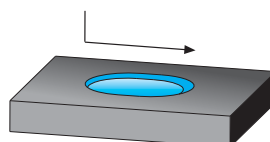
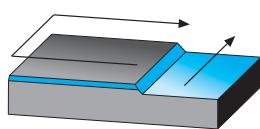
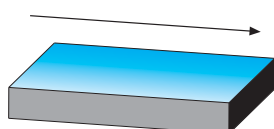


SDEX 0903
.L58



INSERTI - INSERTS
PAG. B 267

(mm)																	
ART.		ØD	Ød	ØA	H	h	L	L2	β	Z	kg	Nm	ISO 6462				
S 406W	006 - 09	6	16	14,2	80	4	32	32	10,5°	1	0,12	1,2÷1,5	–	0903	123006	5608	–
S 406W	012 - 09	12	16	20,2	80	4	32	32	3°	1	0,13	1,2÷1,5	–				
S 406W	016 - 09	16	20	24,2	90	4	40	40	28,5°	2	0,19	1,2÷1,5	–	0903	123008P	5608	–
S 406W	020 - 09	20	20	28,2	90	4	40	40	19,5°	3	0,20	1,2÷1,5	–				
S 406W	025 - 09	25	25	33,2	100	4	44	44	13,5°	4	0,35	1,2÷1,5	–				
S 406W	032 - 09	32	25	40,2	95	4	39	39	9,5°	5	0,36	1,2÷1,5	–				
S 409W	032 - 09	32	16	40,2	40	4	–	–	9,5°	3	0,19	1,2÷1,5	A	0903	123008P	5608P	VBSF08C
S 409W	040 - 09	40	16	48,2	40	4	–	–	7°	4	0,26	1,2÷1,5	A				
S 409W	050 - 09	50	22	58,2	40	4	–	–	5,5°	6	0,37	1,2÷1,5	A	0903	123008P	5608P	VBSF10
S 409W	063 - 09	63	22	71,2	40	4	–	–	4°	8	0,55	1,2÷1,5	A				
S 409W	080 - 09	80	27	88,2	50	4	–	–	3°	10	1,09	1,2÷1,5	A	0903	123008P	5608P	VBSF12
S 409W	100 - 09	100	32	108,2	50	4	–	–	2,5°	12	1,74	1,2÷1,5	A	0903	123008P	5608P	AL16x35
S 409WF	032 - 09	32	16	40,2	40	4	–	–	9,5°	5	0,19	1,2÷1,5	A	0903	123008P	5608P	VBSF08C
S 409WF	040 - 09	40	16	48,2	40	4	–	–	7°	6	0,26	1,2÷1,5	A				
S 409WF	050 - 09	50	22	58,2	40	4	–	–	5,5°	8	0,36	1,2÷1,5	A	0903	123008P	5608P	VBSF10
S 409WF	063 - 09	63	22	71,2	40	4	–	–	4°	10	0,55	1,2÷1,5	A				
S 409WF	080 - 09	80	27	88,2	50	4	–	–	3°	12	1,20	1,2÷1,5	A	0903	123008P	5608P	VBSF12
S 409WF	100 - 09	100	32	108,2	50	4	–	–	2,5°	14	1,76	1,2÷1,5	A	0903	123008P	5608P	AL16x35
S 409GW	063 - 09	63	22	71,2	40	4	–	–	4°	5	0,60	1,2÷1,5	A	0903	123008P	5608P	VBSF10
S 409GW	080 - 09	80	27	88,2	50	4	–	–	3°	6	1,06	1,2÷1,5	A	0903	123008P	5608P	VBSF12
S 409GW	100 - 09	100	32	108,2	50	4	–	–	2,5°	7	1,71	1,2÷1,5	A	0903	123008P	5608P	AL16x35

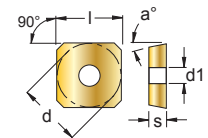


SCELTA VELOCE - QUICK PICK

Tenacità +
Toughness -



Pag. B 238



COD.		P			M			K			N			S			H			HT		HW		HC										
		F	M	R	F	M	R	F	M	R	F	M	R	F	M	R	F	M	R	DT61	N3105	T518M	F1040	T533										
SDHW	0903 AESN .L242	●	○																	■														
SDHT	0903 AESN .L51	○	○		●	●	○																											
SDNT	0903 AESN .L54	○	●	●				●	●	●													■											
SDKT	0903 AESN .L56	○	●	●	○	○	○	○	○	○													■											
SDEX	0903 AEFN .L58										●	●									■													

CON ADDUZIONE LUBROREFRIGERANTE - WITH COOLANT SUPPLY

SENZA ADDUZIONE LUBROREFRIGERANTE - WITHOUT COOLANT SUPPLY

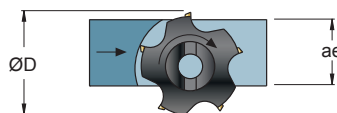
MATERIALI - MATERIALS Pag. H 73		VDI 3323 GR.	HB Rm1) HRC2)	fz0 mm			Vc m/min Pag. B 254									
				F	M	R	DT61	F1040	N3105	T518M	T533					
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	1--5	125-300	0,1	0,2		260	260		350	275					
	ACCIAIO POCO LEGATO - LOW ALLOY STEEL	6--9	180-350	0,08	0,15		250	220		270	210					
	ACCIAIO ALTO LEGATO - ALLOY STEEL	10-11	200-325	0,08	0,15		250	175		200	160					
	INOX MARTENS. - STAINLESS STEEL MART	12-13	200-240	0,06	0,12		230	110		180	100					
M	INOX AUST. DUPLEX - STAINLESS STEEL AUST	14.1-14.2	180-230	0,06	0,1					200	240					
K	GHISA GRIGIA - GREY CAST IRON	15-16	180-260	0,12	0,25					280						
	GHISA SFEROIDALE - SPHEROIDAL GRAPHITE	17-18	160-250	0,1	0,2					230						
	GHISA MALLEABILE - MALLEABLE CAST IRON	19-20	130-230	0,1	0,2					200						
N	ALLUMINIO E SUE LEGHE - ALUMINIUM	21--25	60-130	0,06	0,15	0,25			950							
	RAME E SUE LEGHE - COPPER	26--28	90-110	0,06	0,12	0,2			475							
	NON METALLICI - PLASTICS	29-30	/	0,06	0,12	0,2			950							
S	LEGHE RESIST. CALORE - HIG. TEMP. ALLOY	31--35	200-320	0,05	0,08						85					
	TITANIO E SUE LEGHE - TITANIUM	36-37	400-1050 ⁿ	0,05	0,08						60					
H	ACCIAIO TEMPRATO - HARDENED STEEL	38--41	45-60 ⁿ													

$$n = \frac{Vc \cdot 1000}{\phi D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$fz = fz0 \cdot Kae = \text{mm}$$

$$fn = fz \cdot z = \text{mm}$$

$$Vf = fz \cdot z \cdot n = \text{mm/min}$$



ae/D	0,5-1 50-100%	0,2 20%	0,1 10%	0,05 5%	0,02 2%
Kae	1	1,1	1,2	1,3	1,5

ae/D	0,5-1 50-100%	0,2 20%	0,1 10%	0,05 5%
Vc	Vc (min)-----Vc(max) R-----M-----F			

Pag. B 254

F = FINITURA, LAV. LEGGERA - FINISHING, LIGHT MACHINING
M = LAV. MEDIA, GENERICA - MEDIUM MACHINING, GENERIC
R = SGROSSATURA, LAV. PESANTE - ROUGHING, HEAVY MACHINING

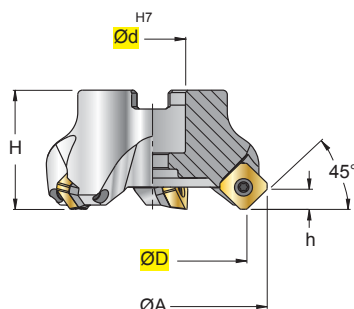
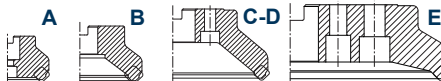
Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fz = mm AVANZAMENTO AL DENTE - TOOTH FEED
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED
Kae = FATTORE DI CORREZIONE - CORRECTION FACTOR

S 438 .. 13
S 438F .. 13
S 438G .. 13

Ø 50-315

γ_p +20°/+22,5°
 γ_f -15°/-7°
 γ_o +4°/+10°

ISO 6462 ...



SEEX
13T3..
.M12



SEKT
13T3..
.L44



SEKT
13T3..
.L44



SEKT
13T3..
.L54



SEKT
13T3..
.L55



SEKW
13T3..
.L51

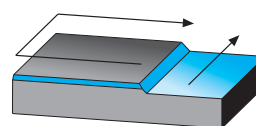
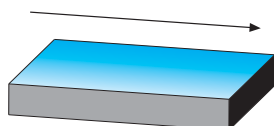


SEKX
1305..
.Z52



INSERTI - INSERTS
PAG. B 268

(mm)																				
ART.		ØD	Ød	ØA	H	h	Z	 kg	 Nm	ISO 6462										
S 438	050 - 13	50	22	63	40	6	4	0,405	3,0±3,5	A			PA13M	BCL7	123512P	5035	5615P	AL10x30		
S 438	063 - 13	63	22	76	40	6	5	0,60	3,0±3,5	A										
S 438	080 - 13	80	27	93	50	6	6	1,120	3,0±3,5	A			13T3	13T3	PA13M	BCL7	123512P	5035	5615P	AL12x35
S 438	100 - 13	100	32	113	50	6	7	1,786	3,0±3,5	A			13T3	13T3	PA13M	BCL7	123512P	5035	5615P	AL16x35
S 438	125 - 13	125	40	138	63	6	8	3,310	3,0±3,5	A			13T3	13T3	PA13M	BCL7	123512P	5035	5615P	AL20x45
S 438	160 - 13	160	40	173	63	6	10	4,070	3,0±3,5	C					PA13M	BCL7	123512P	5035	5615P	—
S 438	200 - 13	200	60	213	63	6	12	6,800	3,0±3,5	B										
S 438	250 - 13	250	60	263	63	6	14	9,700	3,0±3,5	D										
S 438	315 - 13	315	60	334	80	6	18	25,30	3,0±3,5	E										
S 438F	050 - 13	50	22	63	40	6	5	0,4	3,0±3,5	A			PA13M	BCL7	123512P	5035	5615P	AL10x30		
S 438F	063 - 13	63	22	76	40	6	6	0,6	3,0±3,5	A										
S 438F	080 - 13	80	27	93	50	6	8	1,10	3,0±3,5	A			13T3	13T3	PA13M	BCL7	123512P	5035	5615P	AL12x35
S 438F	100 - 13	100	32	113	50	6	10	1,74	3,0±3,5	A			13T3	13T3	PA13M	BCL7	123512P	5035	5615P	AL16x35
S 438F	125 - 13	125	40	138	63	6	12	3,250	3,0±3,5	A			13T3	13T3	PA13M	BCL7	123512P	5035	5615P	AL20x45
S 438G	160 - 13	160	40	173	63	6	7	4,3	3,0±3,5	C			PA13M	BCL7	123512P	5035	5615P	—		
S 438G	200 - 13	200	60	213	63	6	8	7,0	3,0±3,5	B										
S 438G	250 - 13	250	60	263	63	6	10	10,0	3,0±3,5	D										
S 438G	315 - 13	315	60	334	80	6	12	25,6	3,0±3,5	E										



Tenacità +
Toughness -

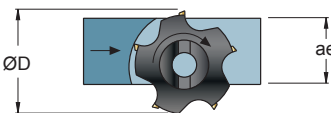
Pag. B 238



- CON INSERTI SEKX 1305.. .Z52	PROFONDITÀ MASSIMA DI LAVORO = 2 (mm) PER ALTI AVANZAMENTI PROFONDITÀ MASSIMA DI LAVORO = 6 (mm) PER AVANZAMENTI STANDARD
- WITH INSERTS SEKX 1305.. .Z52	MAXIMUM MACHINING DEPTH = 2 (mm) FOR HIGH FEED MAXIMUM MACHINING DEPTH = 6 (mm) FOR STANDARD FEED

[illegible]

$$n = \frac{V_c \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$



$$f_z = f_{z0} \cdot K_{ae} = \text{mm}$$

$$f_n = f_z \cdot z = \text{mm}$$

$$V_f = f_z \cdot z \cdot n = \text{mm/min}$$

ae/D	0,5-1 50-100%	0,2 20%	0,1 10%	0,05 5%	0,02 2%
Kae	1	1,1	1,2	1,3	1,5

Vc Pag. B 254	ae/D	0,5-1 50-100%	0,2 20%	0,1 10%	0,05 5%
	Vc (min)-----Vc (max) R-----M-----F				

F = FINITURA , LAV. LEGGERA - FINISHING , LIGHT MACHINING
M = LAV. MEDIA , GENERICA - MEDIUM MACHINING , GENERIC
R = SGROSSATURA , LAV. PESANTE - ROUGHING , HEAVY MACHINING

Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min^{-1}) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fz = mm AVANZAMENTO AL DENTE - TOOTH FEED
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED
Kae = FATTORE DI CORREZIONE - CORRECTION FACTOR

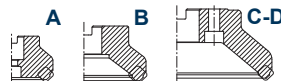
 INSERTO SEKK.. IN GRADO T528N INSERT SEKK.. WITH QUALITY T528N	MATERIALI MATERIALS pag. H 73	P					M	K			S	
		ACCIAIO NON LEGATO NOT ALLOY STEEL	ACCIAIO POCO LEGATO LOW ALLOY STEEL	ACCIAIO ALTO LEGATO ALLOY STEEL	INOX MARTENSITICO STAINLESS STEEL	MART	INOX AUST. DUPLEX STAINLESS STEEL AUST	GHISA GRIGIA GREY CAST IRON	GHISA SFERODALE SPHEROIDAL GRAPHITE	GHISA MALLEABILE MALLEABLE CAST IRON	LEGHE RESIST.	CALEORE GH. TEMP. ALLOY
ALTI AVANZAMENTI HIGH FEED	fz0 mm ap<2	0,2-0,6	0,2-0,5	0,2-0,4	0,2-0,4	0,2-0,5	0,2-0,6	0,2-0,6	0,2-0,6	0,1-0,4	0,1-0,4	
AVANZAMENTI STAND. STANDARD FEED	fz0 mm ap>2	0,25	0,25	0,25	0,25	0,25	0,25	0,25	0,25			
VELOCITÀ DI TAGLIO CUTTING SPEED	Vc m/min	100-220	80-220	80-180	70-180	60-200	80-180	70-160	70-170	20-60	40-70	

S 4501-8W .. 12

Ø 50-250

γ_p -6°
 γ_f -9°/-2°
 γ_o -11°/-6°

ISO 6462 ...



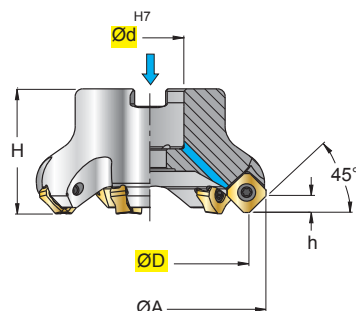
SNEX
1206NN
.K11



SNMX
1206NN
.F52

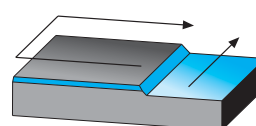
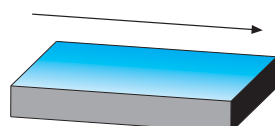


SNMX
120612
.F52

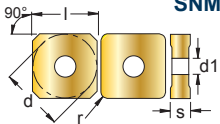


INSERTI - INSERTS
PAG. B 269

ART.	(mm)						kg	Nm	ISO 6462			
	ØD	Ød	ØA	H	h	Z						
S 4501-8W-050-04-12	50	22	63,4	40	6	4	0,41	3,8+5	A	1206	124011	5620
S 4501-8W-050-06-12	50	22	63,4	40	6	6	0,41	3,8+5	A			
S 4501-8W-063-06-12	63	22	76,4	40	6	6	0,55	3,8+5	A			
S 4501-8W-063-08-12	63	22	76,4	40	6	8	0,55	3,8+5	A			
S 4501-8W-080-07-12	80	27	93,4	50	6	7	0,98	3,8+5	A	1206	124011	5620
S 4501-8W-080-10-12	80	27	93,4	50	6	10	0,98	3,8+5	A			
S 4501-8W-100-08-12	100	32	113,4	50	6	8	1,60	3,8+5	A	1206	124011	5620
S 4501-8W-100-12-12	100	32	113,4	50	6	12	1,60	3,8+5	A			
S 4501-8W-125-10-12	125	40	138,4	63	6	10	3,25	3,8+5	A	1206	124011	5620
S4501-8W-125-16-12 New	125	40	138,4	63	6	16	3,26	3,8+5	A			
S4501-8-160-12-12 New	160	40	173,4	63	6	12	4,14	3,8+5	C			
S4501-8-160-20-12 New	160	40	173,4	63	6	20	4,16	3,8+5	C			
S4501-8-200-18-12 New	200	60	213,4	63	6	18	6,69	3,8+5	D	1206	124011	5620
S4501-8-200-26-12 New	200	60	213,4	63	6	26	6,81	3,8+5	D			
S4501-8-250-20-12 New	250	60	263,4	63	6	20	9,40	3,8+5	D			
S4501-8-250-30-12 New	250	60	263,4	63	6	30	9,51	3,8+5	D			



W = FORO PER LIQUIDO REFRIGERANTE - COOLANT BORE - KÜHLMITTELBOHRUNG - TROU DU LIQUIDE D'ARROSAGE

SCELTA VELOCE - QUICK PICK																				HT	HW	HC					SNMX..																												
																				CERMET	NON RIV. CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS																																	
																						F1135 WM2	F2430 WM2	T1025 WM2	T3415 WM3	F3010						L	d	s	d1	r	a°																		
COD.		P		M		K		N		S		H																																											
		F	M	R	F	M	R	F	M	R	F	M	R	F	M	R	F	M	R																																				
SNEX	1206NN	.K11	○	○							●	●	○																																										
SNMX	1206NN	.F52	●	●	●						●	●	●																																										
			○	●	○	○	○	○			●	●	●																																										
SNMX	120612	.F52	○	●	○	○	○	○			●	●	●																																										
CON ADDUZIONE LUBROREFRIGERANTE - WITH COOLANT SUPPLY																																																							
SENZA ADDUZIONE LUBROREFRIGERANTE - WITHOUT COOLANT SUPPLY																																																							

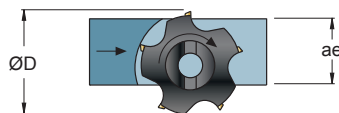
MATERIALI - MATERIALS Pag. H 73			VDI 3323 GR.	HB Rm ⁽¹⁾ HRC ⁽²⁾	fz0 mm			Vc m/min Pag. B 254										
					F	M	R	F1135	F2430	F3010	T1025	T3415						
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL		1—5	125-300	0,12	0,25	0,35	230		200	240							
	ACCIAIO POCO LEGATO - LOW ALLOY STEEL		6—9	180-350	0,1	0,2	0,3	170		200	240							
	ACCIAIO ALTO LEGATO - ALLOY STEEL		10-11	200-325	0,1	0,2	0,3	160		180	220							
	INOX MARTENS. - STAINLESS STEEL MART		12-13	200-240	0,08	0,15	0,25	160	150	120	160							
M	INOX AUST. DUPLEX - STAINLESS STEEL AUST		14.1-14.2	180-230	0,06	0,10	0,20	140	150									
K	GHISA GRIGIA - GREY CAST IRON		15-16	180-260	0,12	0,3	0,4			290		320						
	GHISA SFEROIDALE - SPHEROIDAL GRAPHITE		17-18	160-250	0,12	0,25	0,35			180		250						
	GHISA MALLEABILE - MALLEABLE CAST IRON		19-20	130-230	0,12	0,25	0,35			260		280						
N	ALLUMINIO E SUE LEGHE - ALUMINIUM		21—25	60-130														
	RAME E SUE LEGHE - COPPER		26—28	90-110														
	NON METALLICI - PLASTICS		29-30	/														
S	LEGHE RESIST. CALORE - HIG. TEMP. ALLOY		31—35	200-320	0,05	0,08	0,12		50									
	TITANIO E SUE LEGHE - TITANIUM		36-37	400-1050 ⁿ	0,05	0,08	0,12		45									
H	ACCIAIO TEMPRATO - HARDENED STEEL		38—41	45-60 ⁿ														

$$n = \frac{Vc \cdot 1000}{\phi D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$fz = fz0 \cdot Kae = \text{mm}$$

$$fn = fz \cdot z = \text{mm}$$

$$Vf = fz \cdot z \cdot n = \text{mm/min}$$



ae/D	0,5-1 50-100%	0,2 20%	0,1 10%	0,05 5%	0,02 2%
Kae	1	1,1	1,2	1,3	1,5

ae/D	0,5-1 50-100%	0,2 20%	0,1 10%	0,05 5%
Vc	Vc (min)-----Vc(max)			
Pag. B 254	R-----M-----F			

F = FINITURA, LAV. LEGGERA - FINISHING, LIGHT MACHINING
M = LAV. MEDIA, GENERICA - MEDIUM MACHINING, GENERIC
R = SGROSSATURA, LAV. PESANTE - ROUGHING, HEAVY MACHINING

Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fz = mm AVANZAMENTO AL DENTE - TOOTH FEED
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED
Kae = FATTORE DI CORREZIONE - CORRECTION FACTOR

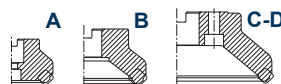


S 8801-8 .. 12
S 8801-8W .. 12

Ø 50-250

γ_p +6°
 γ_f -8°/-5,5°
 γ_o -8°/-5,5°

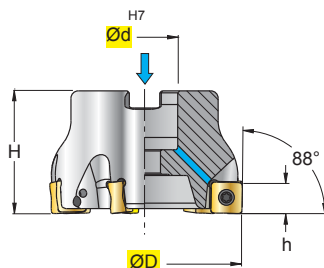
ISO 6462 ...



SNMX
120612
.F52

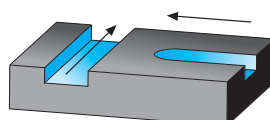


SNMX
1206QNN
.F52

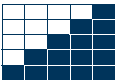
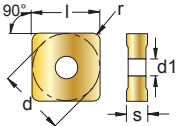


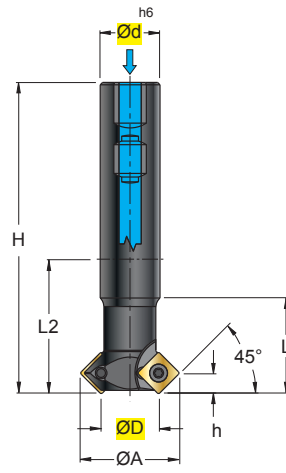
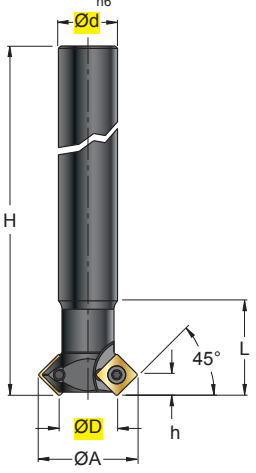
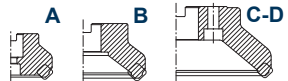
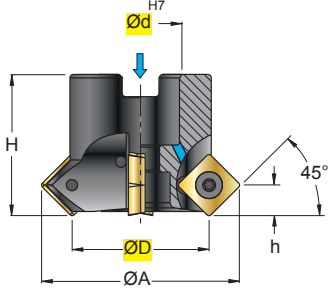
INSERTI - INSERTS
PAG. B 269

ART.	(mm)					kg	Nm	ISO 6462				
	ØD	Ød	H	h	Z							
S 8801-8W-050-04-12	50	22	40	11,5	4	0,27	3,8+5	A	1206	124011	5620	VBSF10
S 8801-8W-063-06-12	63	22	40	11,5	6	0,46	3,8+5	A				
S 8801-8W-080-07-12	80	27	50	11,5	7	0,94	3,8+5	A	1206	124011	5620	AL12x35
S 8801-8W-080-09-12	80	27	50	11,5	9	0,92	3,8+5	A				
S 8801-8W-100-08-12	100	32	50	11,5	8	1,63	3,8+5	A-B	1206	124011	5620	AL16x35
S 8801-8W-100-11-12	100	32	50	11,5	11	1,59	3,8+5	A-B				
S 8801-8W-125-10-12	125	40	63	11,5	10	3,05	3,8+5	A-B	1206	124011	5620	AL20x45
S 8801-8W-125-14-12	125	40	63	11,5	14	2,99	3,8+5	A-B				
S 8801-8-160-12-12	160	40	63	11,5	12	4,00	3,8+5	C	1206	124011	5620	—
S 8801-8-160-18-12	160	40	63	11,5	18	3,91	3,8+5	C				
S 8801-8-200-14-12	200	60	63	11,5	14	6,61	3,8+5	D				
S 8801-8-200-22-12	200	60	63	11,5	22	6,48	3,8+5	D				
S 8801-8-250-16-12	250	60	63	11,5	16	9,68	3,8+5	D				
S 8801-8-250-24-12	250	60	63	11,5	24	9,52	3,8+5	D				

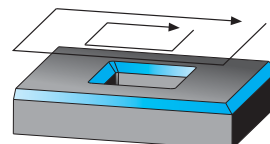
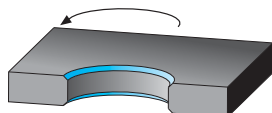


W = FORO PER LIQUIDO REFRIGERANTE - COOLANT BORE - KÜHLMITTELBOHRUNG - TROU DU LIQUIDE D'ARROSAGE

SCELTA VELOCE - QUICK PICK															Tenacità + Toughness -		 Pag. B 238				HT	HW	HC																				
COD.			P			M			K			N			S			H			CERMET	NON RIV. CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS										l	d	s	d1	r	a°					
F	M	R	F	M	R	F	M	R	F	M	R	F	M	R	F	M	R	F	M	R			F1135	T3415																			
SNMX	1206 QNN	.F52	○	●	○	○	○	○	●	●	●											■	■										12,7	12,7	6,35	4,5	0,8	—					
SNMX	120612	.F52	○	●	○	○	○	○		●	●	●										■	■										12,7	12,7	6,35	4,5	1,2	—					
CON ADDUZIONE LUBROREFRIGERANTE - WITH COOLANT SUPPLY																								○	○																		
SENZA ADDUZIONE LUBROREFRIGERANTE - WITHOUT COOLANT SUPPLY																								○	○																		
																																						</					

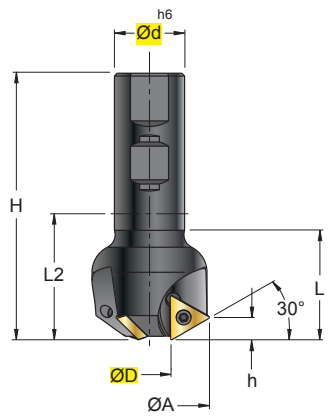
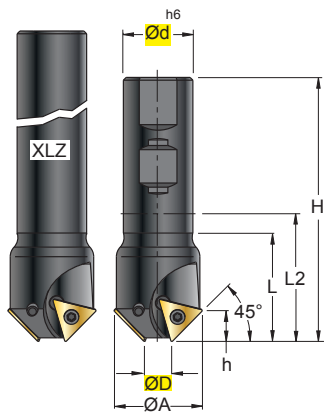
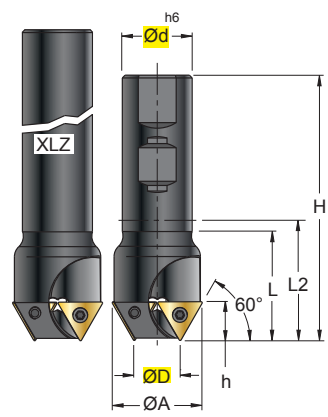
S 676W ..	S 676XLZ ..	S 678W .. 12	SPHTA57P	
Ø 09-032	Ø 09-032	Ø 040-050	SPMWA51	
		ISO 6462 ... 	SPMWA52	
			SPMTA53	
			SPMTA56	
 INSERTI - INSERTS PAG. B 271				

(mm)												ISO 6462				
ART.	ØD	Ød	ØA	H	h	L	L2	Z								
S 676W 009 - 06	9	16	17,0	90	4,0	29	42	1	0,107	1,1+1,3	—	060304	12256P	5608P	—	
S 676W 016 - 09	16	20	28,0	110	5,8	42	60	2	0,209	3,0+3,5	—	09T308	123509P	5615P	—	
S 676W 025 - 12	25	25	41,5	130	8	40	74	2	0,434	4,0+5,0	—	120408	124510	5620	—	
S 676W 032 - 12	32	32	48,5	130	8	50	70	3	0,716	4,0+5,0	—					
S 676XLZ 009 - 06	9	16	17,0	150	4,0	29	—	1	0,205	1,1+1,3	—	060304	12256P	5608P	—	
S 676XLZ 016 - 09	16	20	28,0	200	5,8	42	—	2	0,444	3,0+3,5	—	09T308	123509P	5615P	—	
S 676XLZ 025 - 12	25	25	41,5	200	8	40	—	2	0,723	4,0+5,0	—	120408	124510	5620	—	
S 676XLZ 032 - 12	32	32	48,5	250	8	50	—	3	1,491	4,0+5,0	—					
S 678W 040 - 12	40	22	56,0	40	8	—	—	4	0,252	4,0+5,0	A	120408	124510	5620	VBSF10	
S 678W 050 - 12	50	22	66,0	40	8	—	—	5	0,403	4,0+5,0	A					



W = FORO PER LIQUIDO REFRIGERANTE - COOLANT BORE - KÜHLMITTELBOHRUNG - TROU DU LIQUIDE D'ARROSAGE

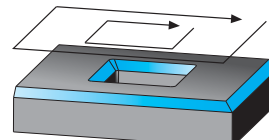
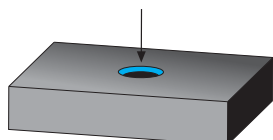
XLZ = EXTRALUNGA, STELO CILINDRICO - EXTRALONG, CYLINDRICAL SHANK - EXTRALANG, ZYLINDERSCHAFT - EXTRALONGUE, QUEUE CYLINDRIQUE

S 616.30 ..			S 616.45 ..			S 616.60 ..			TCMTS42				
Ø 16	$\gamma_p +10^\circ$ $\gamma_f 0^\circ$ $\gamma_o +8^\circ$		Ø 1,2-25	$\gamma_p +29,5^\circ/+6^\circ$ $\gamma_f -14^\circ/-5^\circ$ $\gamma_o +12^\circ/+1^\circ$		Ø 5,4-17	$\gamma_p +8,5^\circ/4^\circ$ $\gamma_f -15^\circ/+4^\circ$ $\gamma_o -0,5^\circ/+1^\circ$		TCMT 2204 .Z52				
 INSERTI - INSERTS PAG. B 271													
(mm)													
ART.	ØD	Ød	ØA	H	h	L	L2	Z	kg	Nm			
S616.30-16-16 (**)	16,0	25	42,5	95	7,5	39	39	3	0,420	3,8+5,0	16T3	1240P	5615P
S616.45-1,2-11 (*)	1,2	12	15,0	70	6,9	25	25	1	0,060	1,1+1,3	1102	12256P	5608P
S616.45-6,2-11 (*)	6,2	16	21,0	80	7,3	27	32	2	0,120	1,1+1,3			
S616.45-10,4-16 (**)	10,4	25	32,0	95	10,8	39	39	2	0,352	3,8+5,0	16T3	1240P	5615P
S616.45-25-22 (***)	25,0	32	53,0	110	13,8	40	50	3	0,694	4,0+5,0	2204	124510	5620
S616XLZ.45-6,2-11 (*)	6,2	16	21,0	150	7,3	27	–	2	0,231	1,1+1,3	1102	12256P	5608P
S616XLZ.45-10,4-16 (**)	10,4	25	32,0	150	10,8	39	–	2	0,519	3,8+5,0	16T3	1240P	5615P
S616.60-5,4-11 (*)	5,4	12	16,0	70	9,0	25	25	1	0,060	1,1+1,3	1102	12256P	5608P
S616.60-14,4-11 (*)	14,4	16	24,0	80	8,5	27	32	2	0,140	1,1+1,3			
S616.60-17-16 (**)	17,0	25	32,0	95	13,0	39	39	2	0,326	3,8+5,0	16T3	1240P	5615P
S616XLZ.60-14,4-11 (*)	14,4	16	24,0	150	8,5	27	–	2	0,248	1,1+1,3	1102	12256P	5608P
S616XLZ.60-17-16 (**)	17,0	25	32,0	150	13,0	39	–	2	0,543	3,8+5,0	16T3	1240P	5615P

(*) Misure rilevate con inserto TCMT 110202
Dimensions obtained with insert TCMT 110202
Mit der Wendeplatte TCMT 110202 aufgenommene
Bemessungen
Dimensions relevées avec plaquette TCMT 110202

(**) Misure rilevate con inserto TCMT 16T304
Dimensions obtained with insert TCMT 16T304
Mit der Wendeplatte TCMT 16T304 aufgenommene
Bemessungen
Dimensions relevées avec plaquette TCMT 16T304

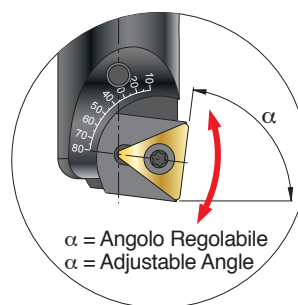
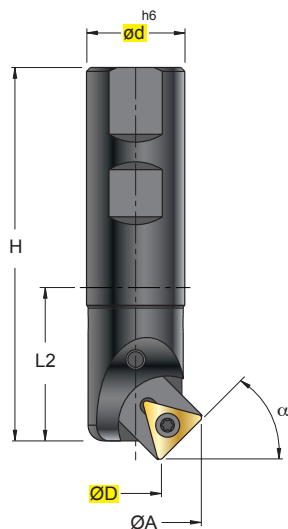
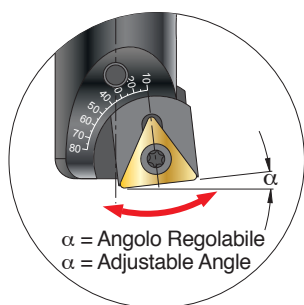
(***) Misure rilevate con inserto TCMT 220408
Dimensions obtained with insert TCMT 220408
Mit der Wendeplatte Tcmt 220408 aufgenommene
Bemessungen
Dimensions relevées avec plaquette TCMT 220408



XLZ = EXTRALUNGA , STELO CILINDRICO - EXTRALONG , CYLINDRICAL SHANK - EXTRALANG , ZYLINDERSCHAFT - EXTRALONGUE , QUEUE CYLINDRIQUE

S 618 ... 3

Ø 20-25



TCMT ...
.S42

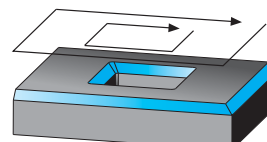
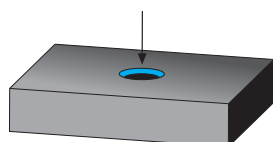


TCMT ...
.Z52



INSERTI - INSERTS
PAG. B 271

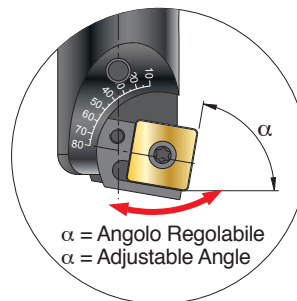
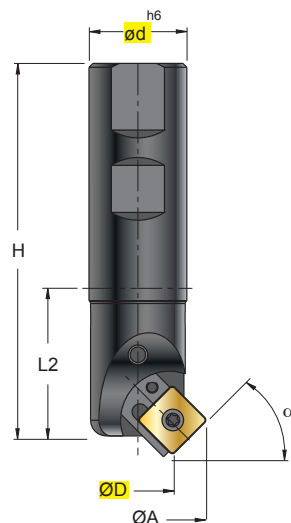
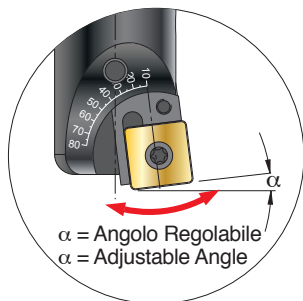
(mm)														
ART.		ØD	Ød	ØA	H	L2	α							
S 618	020-11 .3	7,1	20	25,6	100	51	10°	0,213	1,1+1,3	1102	S11	12256P	5608P	FS243
		8,6	20	26,2	100	51	20°	0,213	1,1+1,3					
		10,3	20	26,5	100	51	30°	0,213	1,1+1,3					
		12,2	20	26,4	100	51	40°	0,213	1,1+1,3					
		13,2	20	26,3	100	51	45°	0,213	1,1+1,3					
		14,2	20	26,0	100	51	50°	0,213	1,1+1,3					
		16,2	20	25,3	100	51	60°	0,213	1,1+1,3					
		18,2	20	24,2	100	51	70°	0,213	1,1+1,3					
		20,1	20	22,9	100	51	80°	0,213	1,1+1,3					
S 618	025-16 .3	4,9	25	31,6	100	44	10°	0,310	3,8+5,0	16T3	S16	12409P	5515P	SM612
		7,1	25	32,6	100	44	20°	0,310	3,8+5,0					
		9,7	25	33,1	100	44	30°	0,310	3,8+5,0					
		12,4	25	33,1	100	44	40°	0,310	3,8+5,0					
		13,8	25	32,9	100	44	45°	0,310	3,8+5,0					
		15,3	25	32,6	100	44	50°	0,310	3,8+5,0					
		18,2	25	31,6	100	44	60°	0,310	3,8+5,0					
		21,0	25	30,1	100	44	70°	0,310	3,8+5,0					
		23,8	25	28,2	100	44	80°	0,310	3,8+5,0					



S 618 .. .4

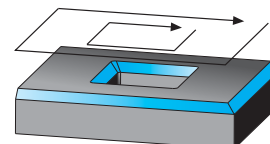
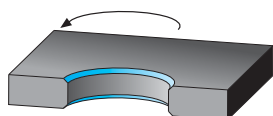
Ø 20

SCMT 1204
.B56



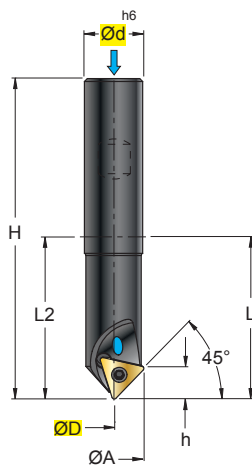
INSERTI - INSERTS
PAG. A 141

		(mm)														
ART.		ØD	Ød	ØA	H	L2	α	kg	Nm							
S 618	020-12 .4	7,8	20	29,5	100	51	10°	0,213	5,5÷7,0	1204	S12.4	FS243	5620	SM612	5004	5015
		10,5	20	31,0	100	51	20°	0,213	5,5÷7,0							
		13,3	20	32,3	100	51	30°	0,213	5,5÷7,0							
		16,2	20	33,0	100	51	40°	0,213	5,5÷7,0							
		17,7	20	33,1	100	51	45°	0,213	5,5÷7,0							
		19,2	20	33,2	100	51	50°	0,213	5,5÷7,0							
		22,1	20	32,8	100	51	60°	0,213	5,5÷7,0							
		24,8	20	32,0	100	51	70°	0,213	5,5÷7,0							
		27,2	20	30,7	100	51	80°	0,213	5,5÷7,0							



S 613.45W-0-16

Ø 0



TCMX 16T308ZN .S52



INSERTI - INSERTS
PAG. B 271

GRADO
GRADE

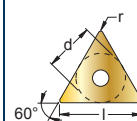
QUICK
PICK

MATERIALI
MATERIALS

F4140



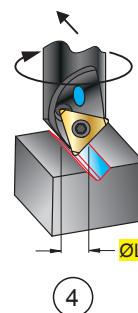
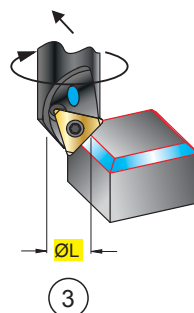
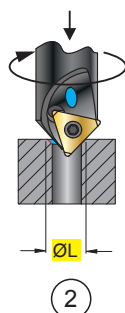
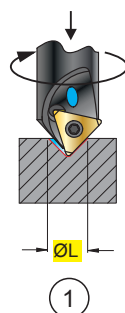
P	M	K	N	S	H
●	●	○	○	●	



l	d	S	d1	r
16,5	9,52	3,97	4,4	0,8

(mm)

ART.	ØD	Ød	ØA	H	h	L	L2	Z	kg	Nm			
S 613.45W-0-16	0	20	21,6	110	10	50	60	1	0,21	3,8+5,0	16T308	12409P	5615P



MATERIALI - MATERIALS Pag. H 73		VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min	fz mm		
				F4140	①	②-③	④
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	1-5	125-300	120	0,02-0,04	0,05-0,2	0,03-0,08
	ACCIAIO POCO LEGATO - LOW ALLOY STEEL	6-9	180-350	100	0,02-0,04	0,05-0,2	0,03-0,08
	ACCIAIO ALTO LEGATO - ALLOY STEEL	10-11	200-325	80	0,02-0,04	0,05-0,2	0,03-0,08
	INOX MARTENS. - STAINLESS STEEL MART	12-13	200-240	100	0,02-0,04	0,05-0,2	0,03-0,08
M	INOX AUST. DUPLEX - STAINLESS STEEL AUST	14.1-14.2	180-230	100	0,03-0,05	0,05-0,2	0,03-0,08
K	GHISA GRIGIA - GREY CAST IRON	15-16	180-260	120	0,03-0,06	0,05-0,2	0,05-0,1
	GHISA SFEROIDALE - SPHEROIDAL GRAPHITE	17-18	160-250	140	0,03-0,06	0,05-0,2	0,05-0,1
	GHISA MALLEABILE - MALLEABLE CAST IRON	19-20	130-230	120	0,03-0,06	0,05-0,2	0,05-0,1
N	ALLUMINIO E SUE LEGHE - ALUMINIUM	21-25	60-130	200	0,03-0,06	0,05-0,2	0,08-0,15
	RAME E SUE LEGHE - COPPER	26-28	90-110	150	0,03-0,06	0,05-0,2	0,08-0,15
	NON METALLICI - PLASTICS	29-30	/				
S	LEGHE RESIST. CALORE - HIG. TEMP. ALLOY	31-35	200-320	50	0,01-0,06	0,03-0,07	0,05-0,1
	TITANIO E SUE LEGHE - TITANIUM	36-37	400-1050 ¹⁾	50	0,01-0,06	0,03-0,07	0,05-0,1
H	ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾				

$$n = \frac{Vc \cdot 1000}{\phi L \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$fz = fz0 \cdot Kae = \text{mm}$$

$$fn = fz \cdot z = \text{mm}$$

$$Vf = fz \cdot z \cdot n = \text{mm/min}$$

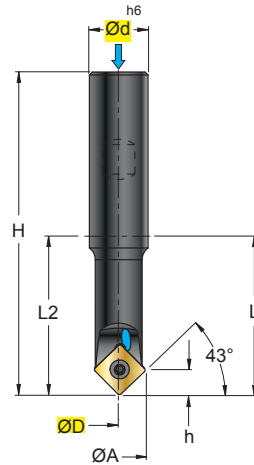
F = FINITURA, LAV. LEGGERA - FINISHING, LIGHT MACHINING
M = LAV. MEDIA, GENERICA - MEDIUM MACHINING, GENERIC
R = SGROSSATURA, LAV. PESANTE - ROUGHING, HEAVY MACHINING

Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fz = mm AVANZAMENTO AL DENTE - TOOTH FEED
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED
Kae = FATTORE DI CORREZIONE - CORRECTION FACTOR

S 614.45W-0-12

Ø 0

SCMX 120408ZN .S52



INSERTI - INSERTS
PAG. B 267

GRADO
GRADE

QUICK
PICK

MATERIALI
MATERIALS

F4140



P

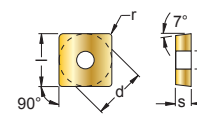
M

K

N

S

H



mm

l

d

S

d1

r

12,7

12,7

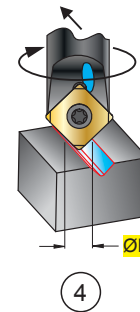
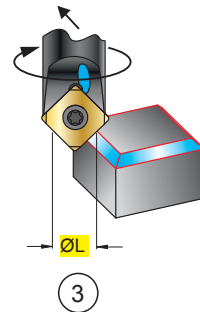
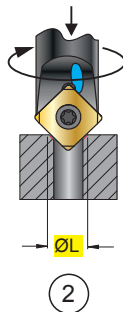
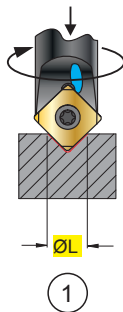
4,76

5,3

0,8

(mm)

ART.	ØD	Ød	ØA	H	h	L	L2	Z	kg	Nm			
S 614.45W-0-12	0	20	18,4	110	7,8	50	60	1	0,21	5,5+7,0	120408	FS242	5620



MATERIALI - MATERIALS Pag. H 73		VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min	fz mm		
				F4140	①	②-③	④
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	1-5	125-300	120	0,02-0,04	0,05-0,2	0,03-0,08
	ACCIAIO POCO LEGATO - LOW ALLOY STEEL	6-9	180-350	100	0,02-0,04	0,05-0,2	0,03-0,08
	ACCIAIO ALTO LEGATO - ALLOY STEEL	10-11	200-325	80	0,02-0,04	0,05-0,2	0,03-0,08
	INOX MARTENS. - STAINLESS STEEL MART	12-13	200-240	100	0,02-0,04	0,05-0,2	0,03-0,08
M	INOX AUST. DUPLEX - STAINLESS STEEL AUST	14.1-14.2	180-230	100	0,03-0,05	0,05-0,2	0,03-0,08
K	GHISA GRIGIA - GREY CAST IRON	15-16	180-260	120	0,03-0,06	0,05-0,2	0,05-0,1
	GHISA SFEROIDALE - SPHEROIDAL GRAPHITE	17-18	160-250	140	0,03-0,06	0,05-0,2	0,05-0,1
	GHISA MALLEABILE - MALLEABLE CAST IRON	19-20	130-230	120	0,03-0,06	0,05-0,2	0,05-0,1
N	ALLUMINIO E SUE LEGHE - ALUMINIUM	21-25	60-130	200	0,03-0,06	0,05-0,2	0,08-0,15
	RAME E SUE LEGHE - COPPER	26-28	90-110	150	0,03-0,06	0,05-0,2	0,08-0,15
	NON METALLICI - PLASTICS	29-30	/				
S	LEGHE RESIST. CALORE - HIG. TEMP. ALLOY	31-35	200-320	50	0,01-0,06	0,03-0,07	0,05-0,1
	TITANIO E SUE LEGHE - TITANIUM	36-37	400-1050 ¹⁾	50	0,01-0,06	0,03-0,07	0,05-0,1
H	ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾				

$$n = \frac{Vc \cdot 1000}{\phi L \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$fz = fz0 \cdot Kae = \text{mm}$$

$$fn = fz \cdot z = \text{mm}$$

$$Vf = fz \cdot z \cdot n = \text{mm/min}$$

F = FINITURA, LAV. LEGGERA - FINISHING, LIGHT MACHINING
M = LAV. MEDIA, GENERICA - MEDIUM MACHINING, GENERIC
R = SGROSSATURA, LAV. PESANTE - ROUGHING, HEAVY MACHINING

Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fz = mm AVANZAMENTO AL DENTE - TOOTH FEED
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED
Kae = FATTORE DI CORREZIONE - CORRECTION FACTOR