UNIVERZITET U NOVOM SADU

FAKULTET TEHNIČKIH NAUKA

Nastavni predmet:

INTEGRISANI CAPP SISTEMI I TEHNOLOŠKA BAZA PODATAKA

Vežba br 5b:

Automatizacija izbora alata i režima obrade – Kennametal Hertel

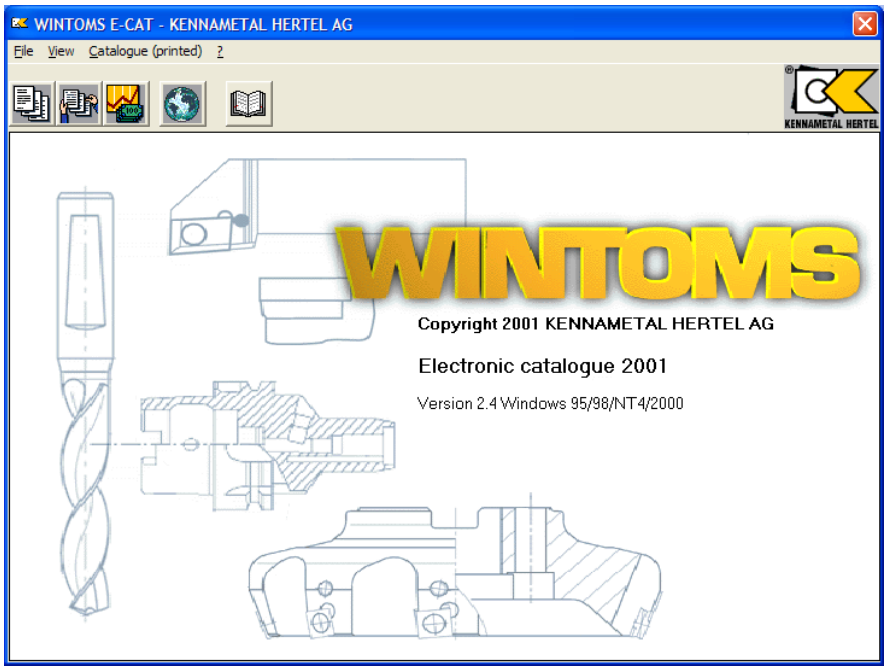
Profesor: dr Dejan Lukić

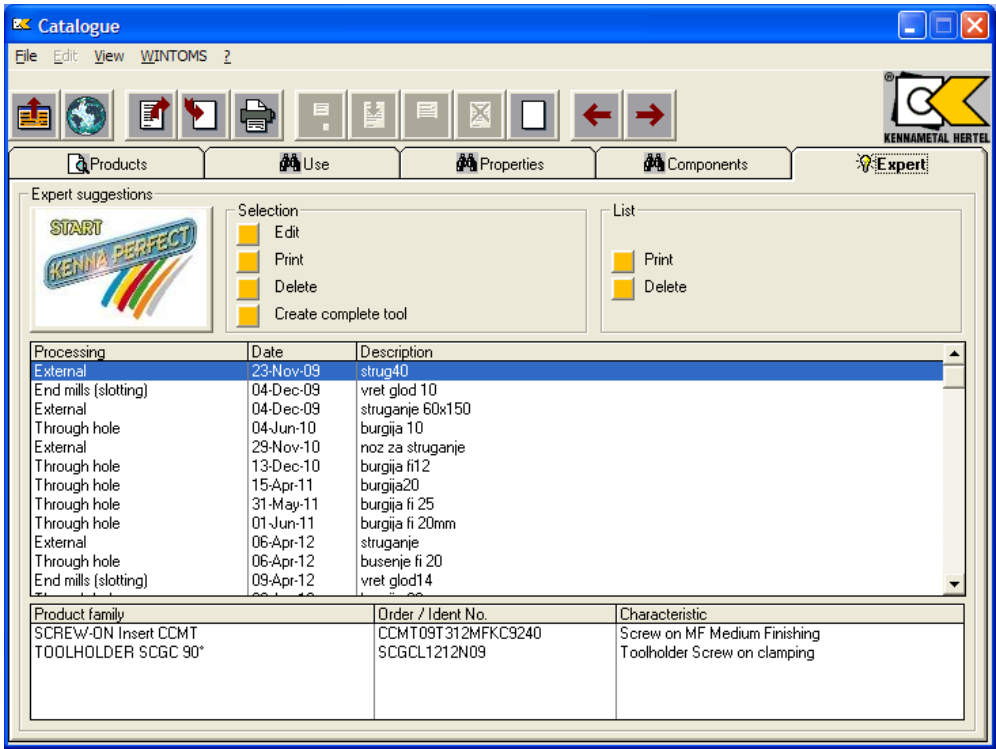
Predmetni asistent: Dejan Božić

Ekspertni sistem za automatizovan izbor alata i režima

U okviru ovog expertskog sistema (Kenna Perfect) izbor alata i režima obrade se vrši prema odgovarajućoj proceduri: :

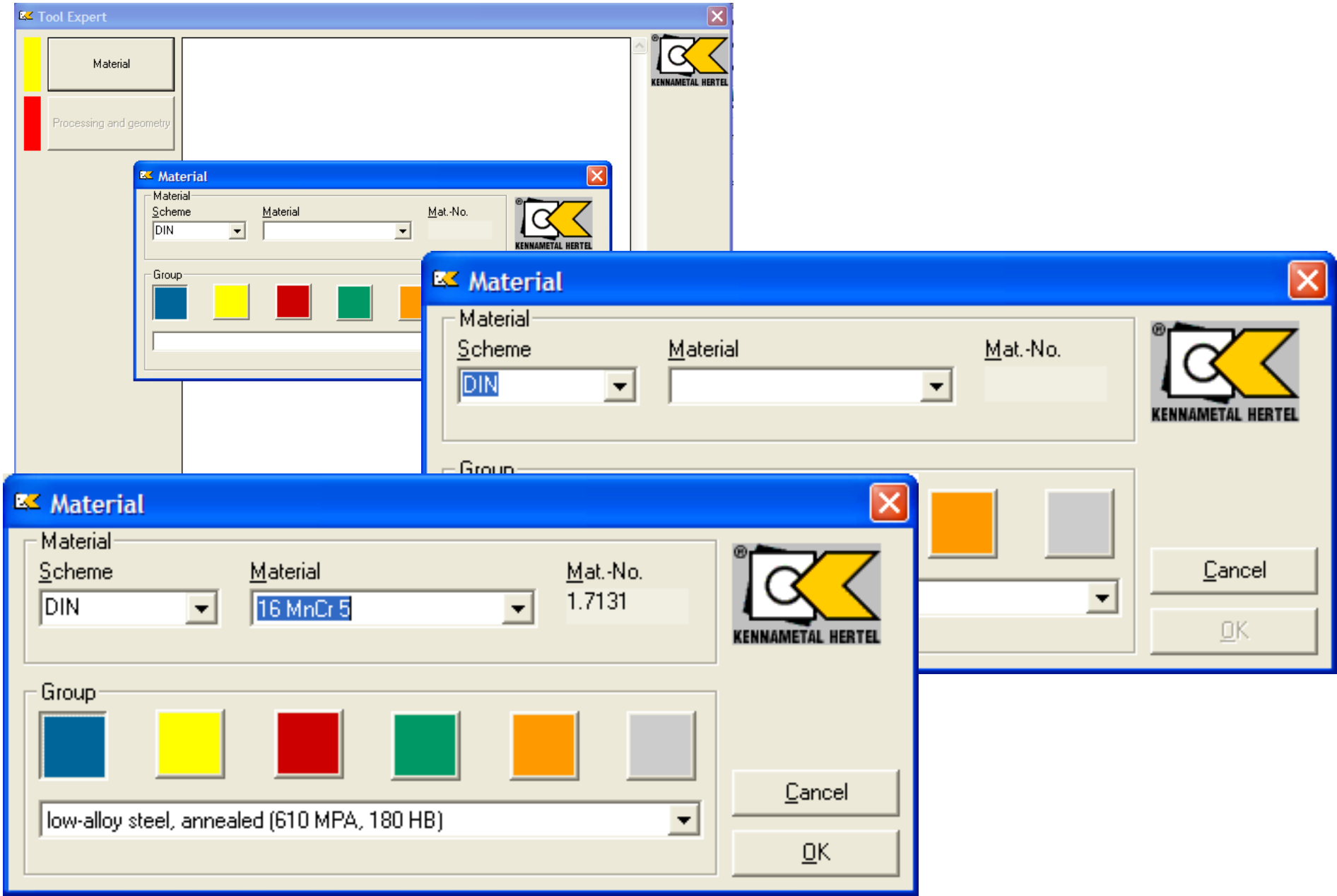
1. *Izbor materijala radnog predmeta,*
2. *Izbor vrste procesa i zahvata obrade*
3. *Izbor vrste obradnog sistema*
4. *Izbor alata – reznog modula*
5. *Izbor rezne pločice (ako je predviđena)*
6. *Izbor režima obrade*



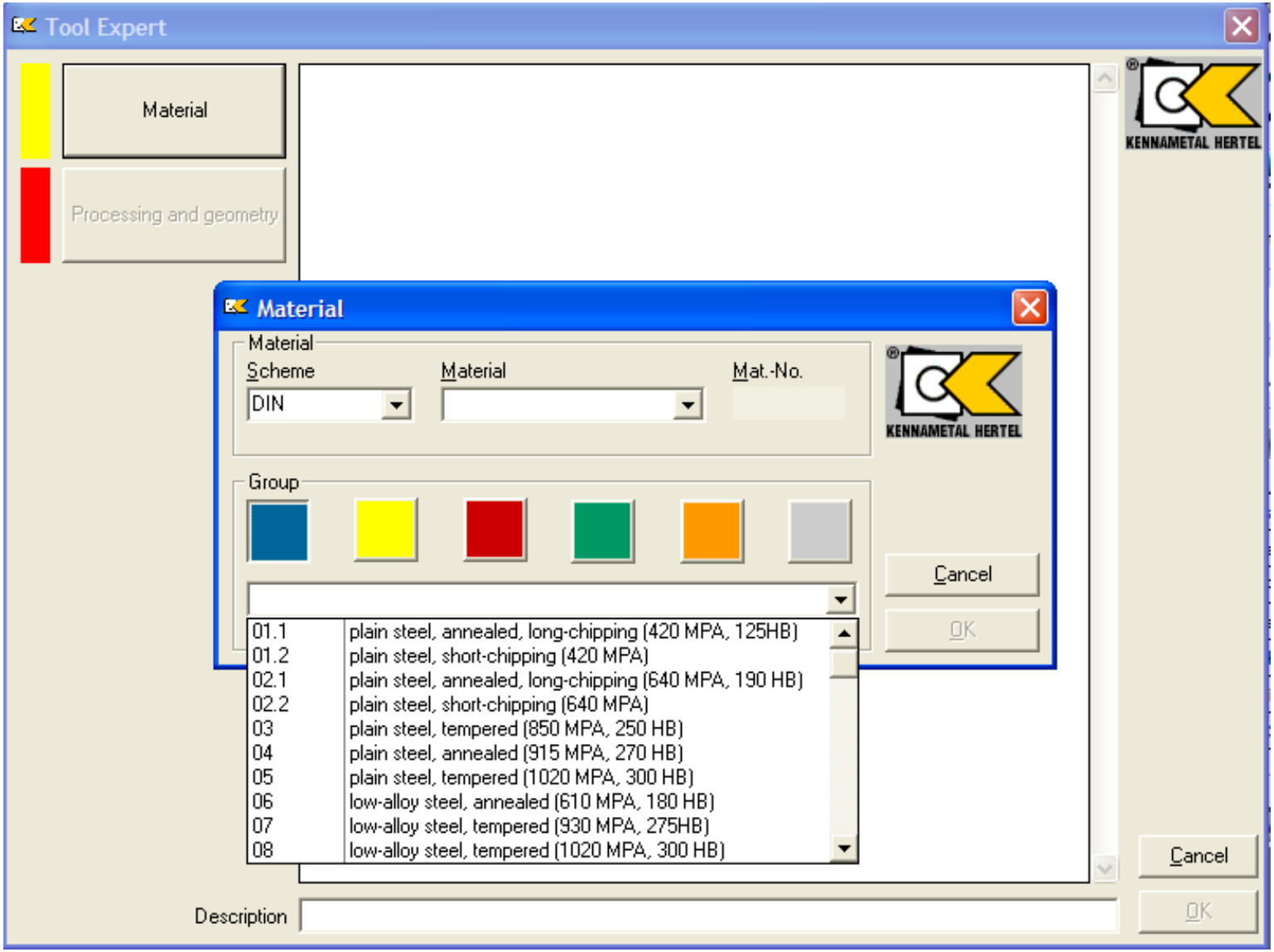


1. Izbor materijala radnog predmeta

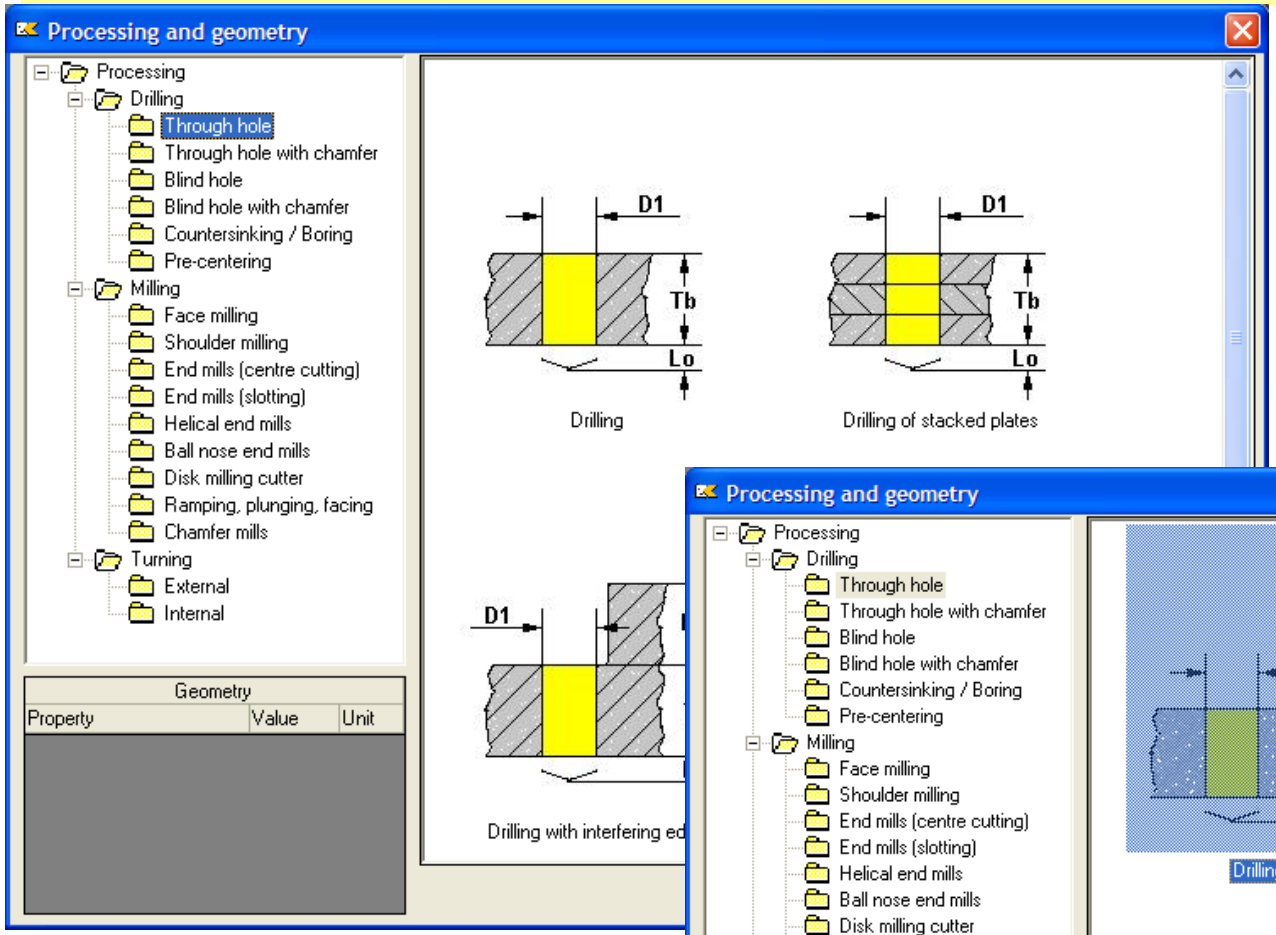
Prvo izbor standarda – pa onda izbor materijala prema oznaci u standardu

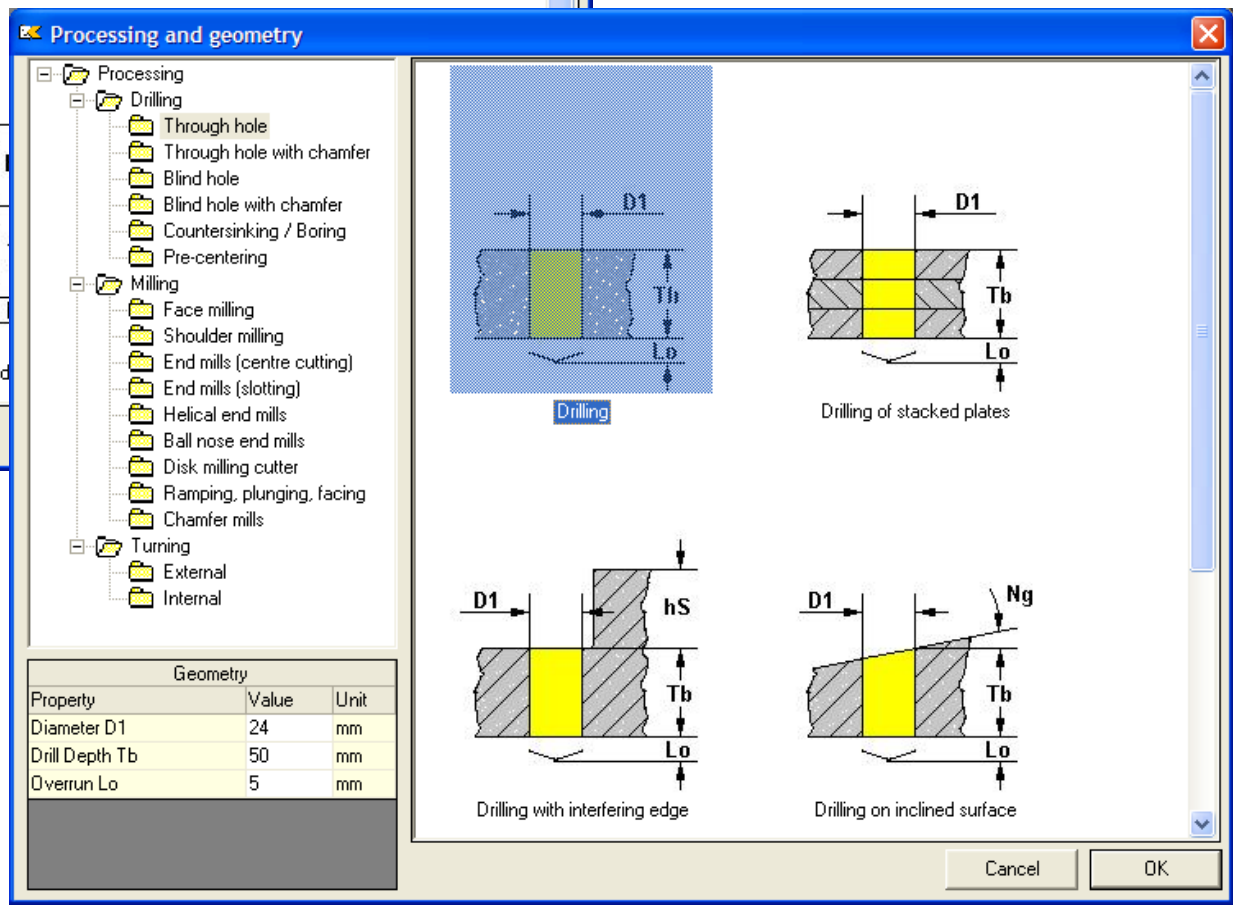


ili Izbor grupe materijala, pa karakteristika materijala (vrsta materijala, zatezna čvrstoća, tvrdoća)

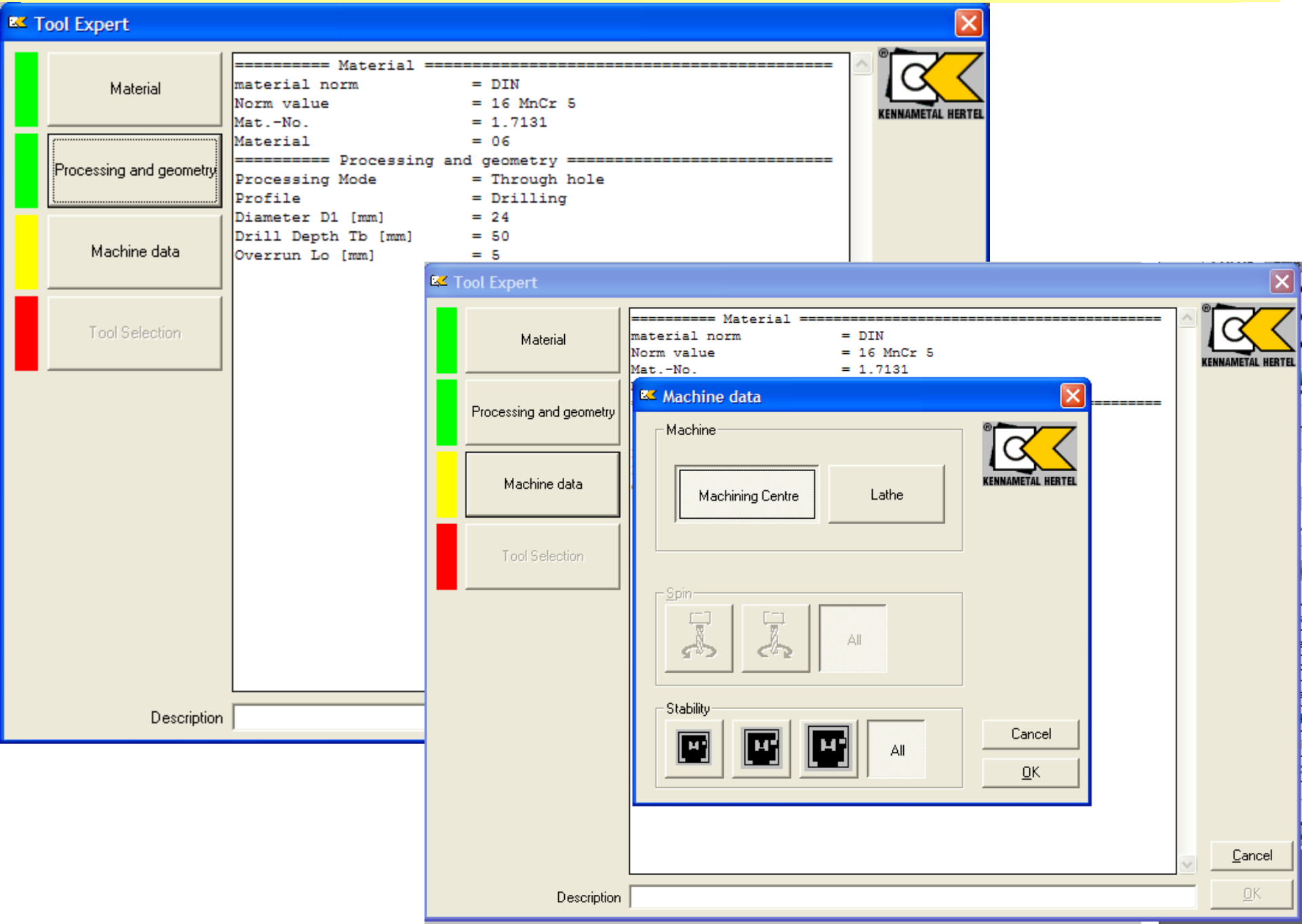


2. Izbor vrste procesa (struganje,glodanje,bušenje) i odgovarajućeg zahvata

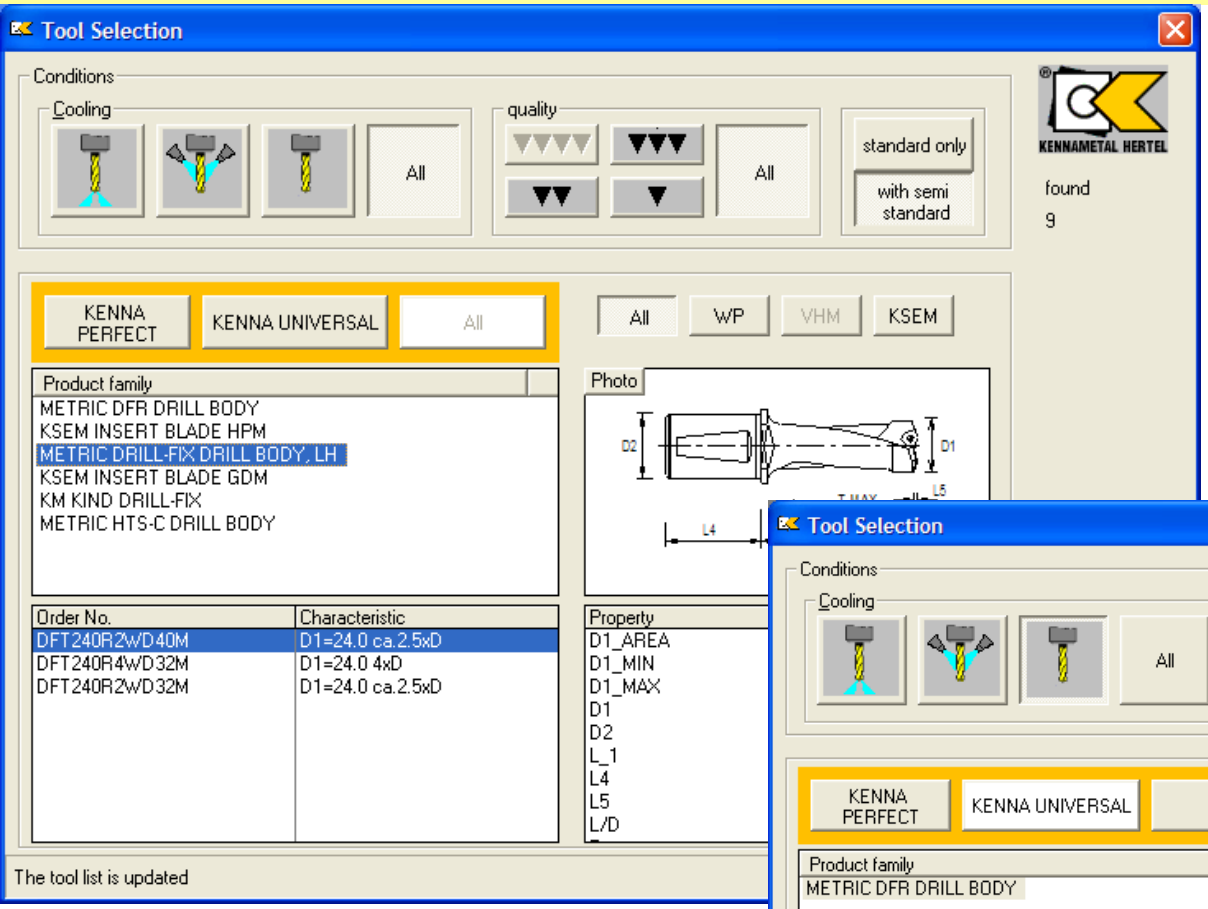


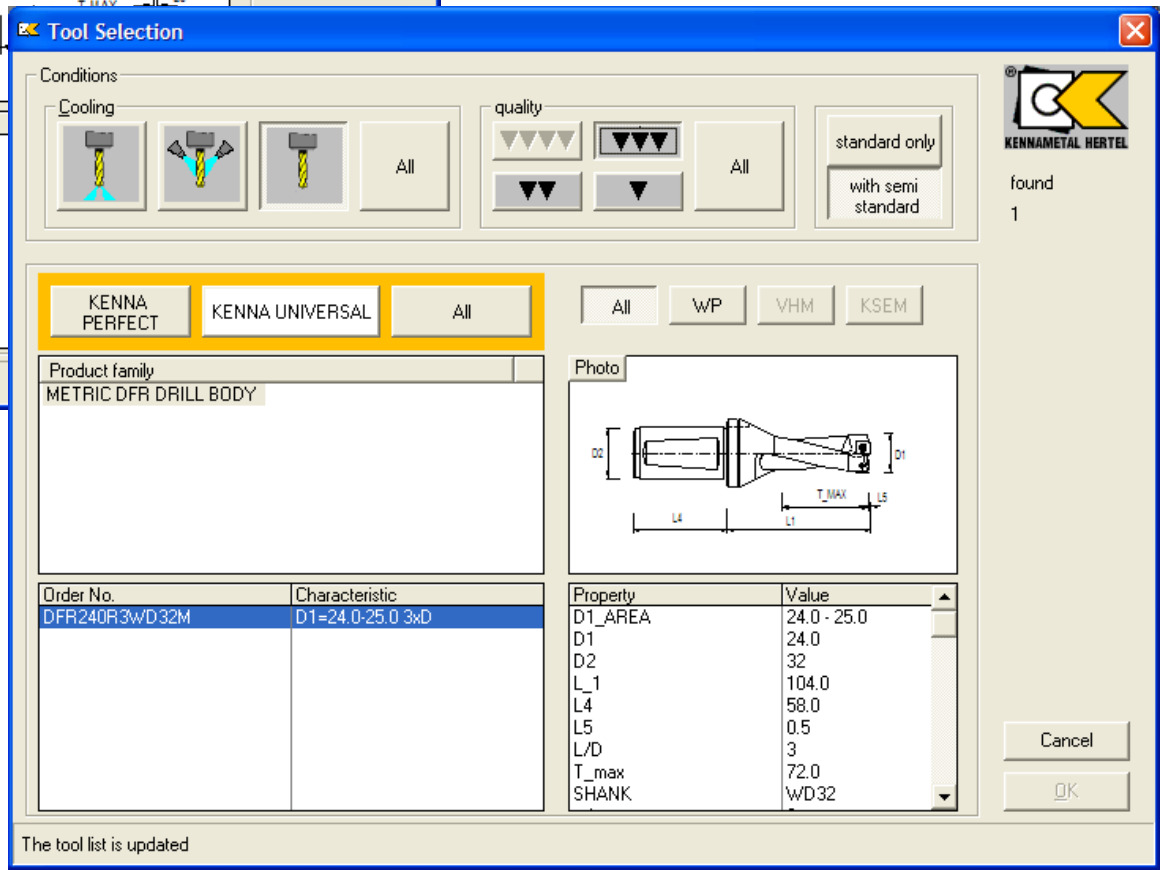


3. Izbor vrste obradnog sistema

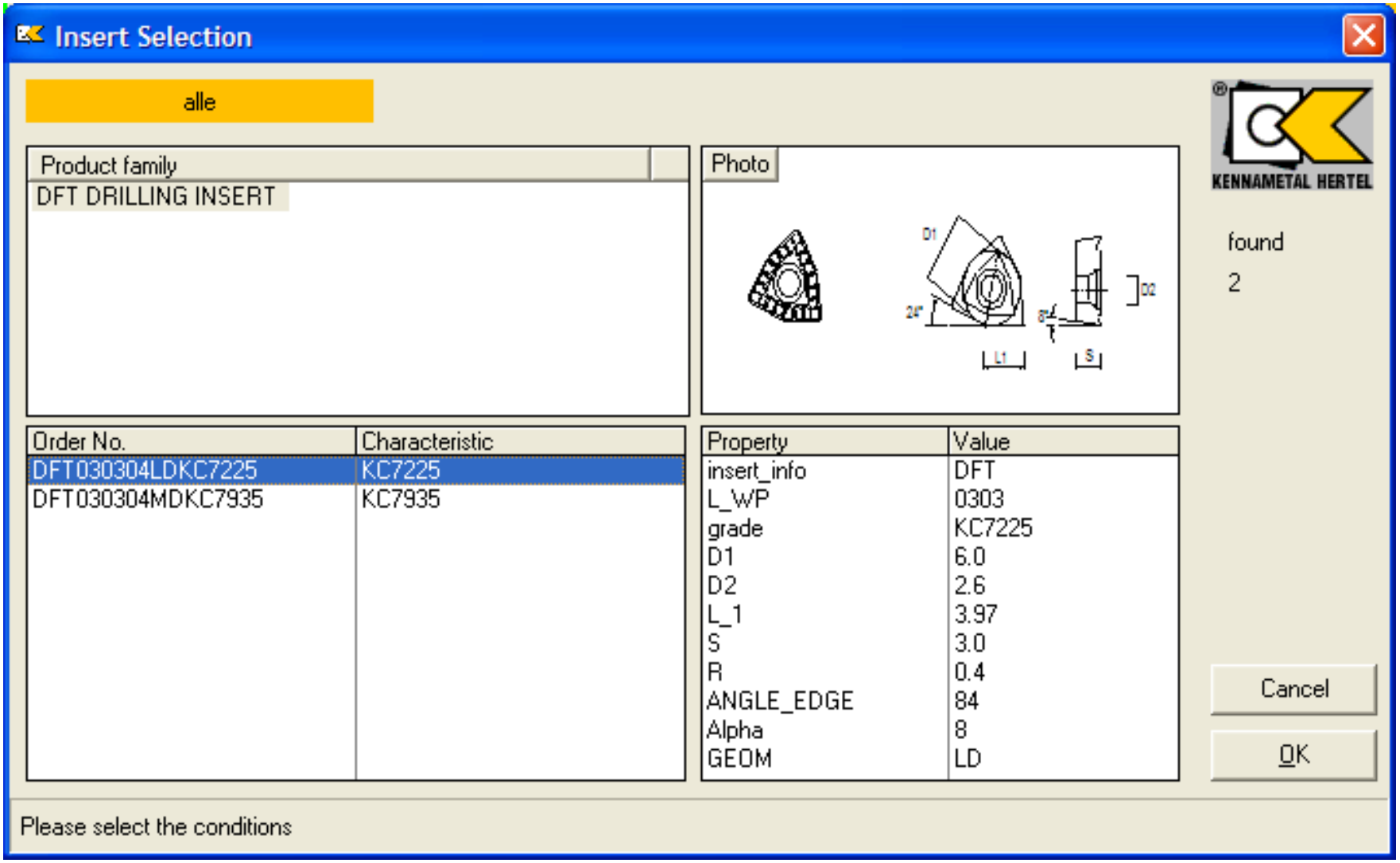


4. Izbor alata – reznog modula i uslova obrade





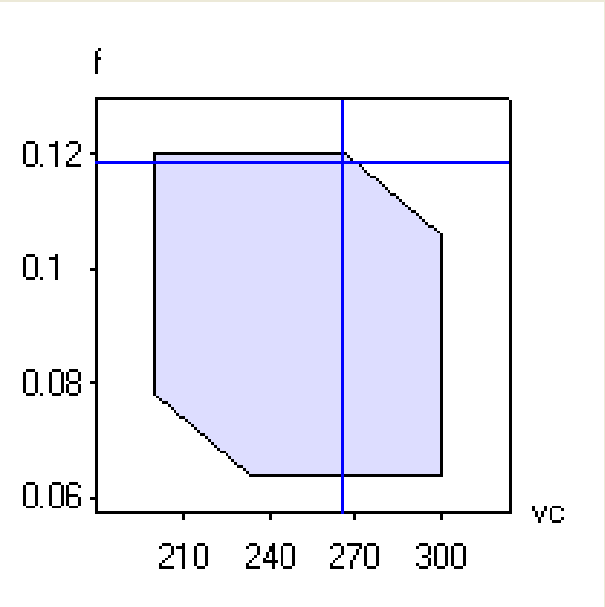
5. Izbor rezne pločice



6. Izbor režima obrade

Cutting Data Recommendations

Feed Range



Results

Eigenschaft	Wert	Einheit
vc_min	200	m/min
vc_max	300	m/min
vc	265.66	m/min
f_min	0.06	mm/U
f_max	0.12	mm/U
Feed	0.12	mm/U
Torque	26.5	Nm
Feed Force	3522	N
Drehzahl	3523.4	rpm
Power	9.78	kW

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Cancel

OK

Finalni izveštaj i štampa

Tool Expert

Material

Processing and geometry

Machine data

Tool Selection

Insert Selection

Cutting Data Recommendations

```
material norm              = DIN
Norm value                 = 16 MnCr 5
Mat.-No.                   = 1.7131
Material                   = 06
========== Processing and geometry ===
Processing Mode            = Through hol
Profile                    = Drilling
Diameter D1 [mm]           = 24
Drill Depth Tb [mm]        = 50
Overrun Lo [mm]            = 5
========== Machine data ==============
kind of machine            = 1
Additional machine attribute [yes/no]=
========== Tool Selection ============
SemiStandardTool           = false
Kategorie                  = 3
Product family             = METRIC DRIL
Order No.                  = DFT240R2WD4
========== Insert Selection ==========
Product family insert      = DFT DRILLIN
Insert                     = DFT030304LD
========== Cutting Data Recommendation
vc_min [m/min]             = 200
vc_max [m/min]             = 300
vc [m/min]                 = 265.66
f_min [mm/U]               = 0.06
f_max [mm/U]               = 0.12
Feed [mm/U]                = 0.12
Torque [Nm]                = 26.5
Feed Force [N]             = 3522
Drehzahl [rpm]             = 3523.4
Power [kW]                 = 9.78
```

Description: burgija fi24

Cutting Data Recommendations

Print... | 75 % | 1/2 | Back... | Forward... | Close

Cutting Data Recommendations

KENNAMETAL HERTEL

Expert suggestions 4/12/2014 2:31:43 PM

Order / Ident No.	Characteristic	Product family
DFT240R2WD40M	D1=24.0 ca.2.5xD	METRIC DRILL-FIX DRILL BODY, LH
DFT030304LDKC7225	KC7225	DFT DRILLING INSERT

Data Sheet burgija fi24

Property	Value	Property	Value
material norm	DIN	SemiStandardTool	0
Norm value	16 MnCr 5	Kategorie	3
Mat.-No.	1.7131	Product family	METRIC DRILL-FIX DRILL BODY, LH
Material	low-alloy steel, annealed (610 MPA, 180 HB)	Order No.	DFT240R2WD40M
Processing Mode	Through hole	Product family insert	DFT DRILLING INSERT
Profile	Drilling	Insert	DFT030304LDKC7225
Diameter D1 [mm]	24	vc_min [m/min]	200
Drill Depth Tb [mm]	50	vc_max [m/min]	300
Overrun Lo [mm]	5	vc [m/min]	265.66
kind of machine	1	f_min [mm/U]	0.06
Additional machine attribute [ja/nein]	0	f_max [mm/U]	0.12
		Feed [mm/U]	0.12