



Secolor Selection Guide

User's Manual

2007-11-21
Seco Business Solutions
SECO TOOLS AB, SWEDEN

1	INTRODUCTION.....	3
2	FEATURES	3
2.1	SEARCH FUNCTIONALITY	4
2.1.1	<i>ISO / ANSI</i>	4
2.1.2	<i>Insert designation</i>	4
2.1.3	<i>Method</i>	4
2.1.4	<i>Select a color in the Secolor matrix:</i>	5
2.1.5	<i>Search for grade</i>	5
2.1.6	<i>Language</i>	5
2.2	SEARCH RESULT LIST.....	6
2.2.1	<i>Insert information</i>	6
2.2.2	<i>Sorting of output in product list</i>	8
2.2.3	<i>Alternative inserts</i>	8
2.3	CUTTING DATA.....	8
2.4	HELP TEXTS.....	9
3	SYSTEM.....	10
3.1	REQUIREMENTS.....	10
3.2	UPDATES	10

1 Introduction

This is a user's manual describing how to use the new Secolor Selection Guide, SSG. It will present information about the basic features, the search function as well as system requirements for the application.

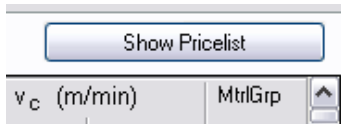
The application itself will present all recommended Seco Tools ISO-turning inserts for a selected turning application, as well as give basic cutting data parameters for all of the newest Seco turning grades.

2 Features

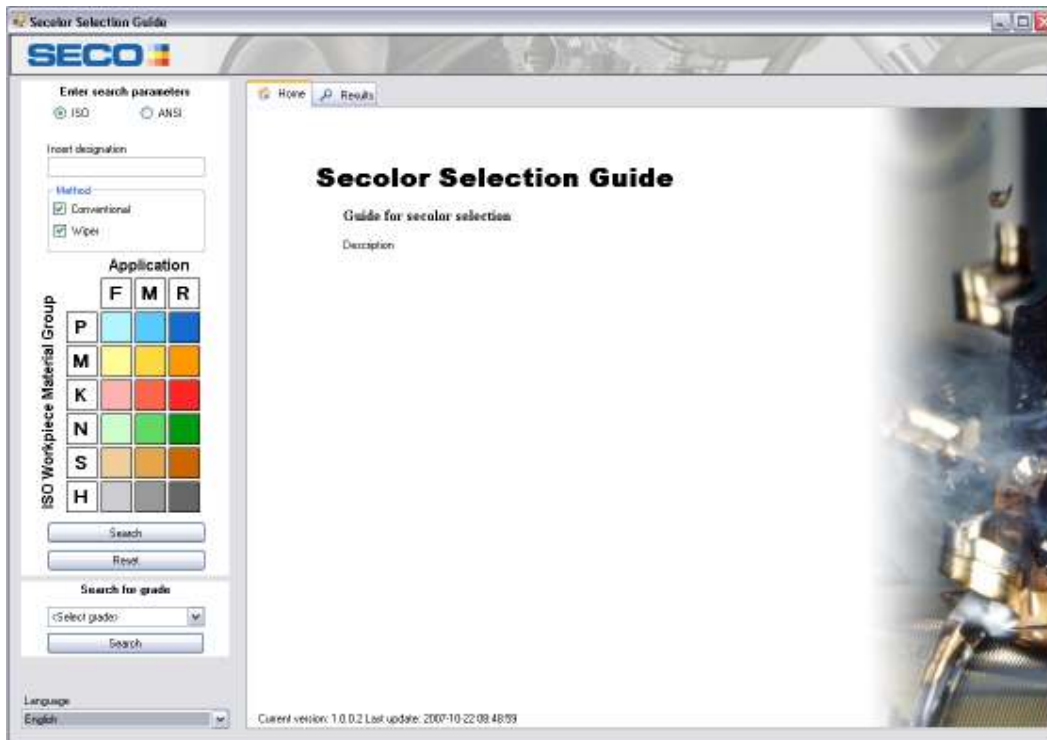
There are some new features in the new version of the software, such as a new output table, insert pictures, ability to search for a certain grade and also too sort the result in different ways.

The layout of the new version has been completely redesigned. In the design changes we have added another Secolor matrix to the insert information section, just to minimize the risk of confutation between input and output dots in the matrix that was the case in the previous version.

There is also a link to the PriceCD application that will present the price of the selected product in your local currency (if the PriceCd application is installed on the computer).



2.1 Search functionality



2.1.1 ISO / ANSI

Select which designation standard to use when searching for inserts. This will also set the cutting data parameters in the output table to the measuring units related to the chosen standard (metric or imperial).

2.1.2 Insert designation

This field is used to enter the desired search criteria. It can be a complete designation or just a partial one. (Up to 10 characters can be entered).

2.1.3 Method

Selects what type of inserts the result should contain, either *Conventional*, *Wiper* or *Both*.

Conventional - turning with inserts with conventional nose radius
Wiper - turning with inserts with a wiper flat on the nose radius

2.1.4 Select a color in the Secolor matrix:

Application:

- F** – Finishing at low depth of cut.
- M** – Medium-rough machining.
- R** – Rough machining at higher depth of cut.

ISO work piece material group:

- P** – Steel: All kind of steel and cast steel except stainless steel with austenitic structure.
- M** – Stainless Steel: Stainless austenitic and austenitic/ferritic steel and cast steel.
- K** – Cast Iron: Grey cast iron, cast iron with spheroidal graphite, malleable cast iron.
- N** – Non-ferrous Metal: Aluminium and other non-ferrous metals, non-metallic materials.
- S** – Super alloys and titanium: Heat resistant special alloys based on iron, nickel and cobalt, titanium and titanium alloys.
- H** – Hard Materials: Hardened steel, hardened cast iron materials, chilled cast iron.

2.1.5 Search for grade

Here you can specify if you are looking for a certain Seco-grade. Choose a grade in the drop-down list and only inserts with that exact grade will be shown in the results. If no result is shown, the selected grade is not suitable for the specified situation.

2.1.6 Language

This is where the language of the application is selected. Choose your preferred language in the drop-down list.

2.2 Search result list

Home		Results(Found: 4)		Show Pricelist					
Description	Grade	a_p (mm)		f_n (mm/r)		v_c (m/min)		MtrlGrp	
		Rec.	Range	Rec.	Range	Rec.	Range		
WNMG080408-M3	TP2500	2.00	0.50-4.00	0.27	0.15-0.60	315	360-270	4	
WNMG080408-MF5	TP2500	0.70	0.35-2.70	0.40	0.30-0.45	320	370-270	4	
WNMG080408W-M3	TP2500	1.50	1.00-4.00	0.50	0.15-0.90	285	330-240	4	
WNMG080408W-MF2	TP2500	1.00	0.20-4.00	0.40	0.10-0.70	330	380-280	4	

When a search has been executed this is how the result will look. You will receive a list containing all suitable inserts for the specified situation. You can see information of grade and cutting data recommendations for a_p , f_n and v_c and the ISO work piece material group for which the recommendations are given.

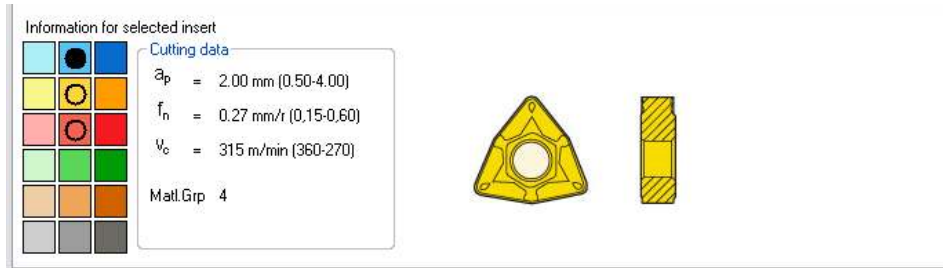
The green rows highlight which inserts have the selected material group as a primary work area (dot in the Secolor matrix, see below). The yellow ones only have the specified material group as optional (ring in the Secolor matrix).

2.2.1 Insert information



Home		Results(Found: 4)		Show Pricelist					
Description	Grade	a_p (mm)		f_n (mm/r)		v_c (m/min)		MtrlGrp	
		Rec.	Range	Rec.	Range	Rec.	Range		
WNMG080408-M3	TP2500	2.00	0.50-4.00	0.27	0.15-0.60	315	360-270	4	
WNMG080408-MF5	TP2500	0.70	0.35-2.70	0.40	0.30-0.45	320	370-270	4	
WNMG080408W-M3	TP2500	1.50	1.00-4.00	0.50	0.15-0.90	285	330-240	4	
WNMG080408W-MF2	TP2500	1.00	0.20-4.00	0.40	0.10-0.70	330	380-280	4	

If an insert is marked in the Search result list additional information for that insert will be presented in the bottom of the application window. Here a new output Secolor matrix will show the dots and rings of the selected insert. It will also present the cutting data recommendations the same way as the previous version did.

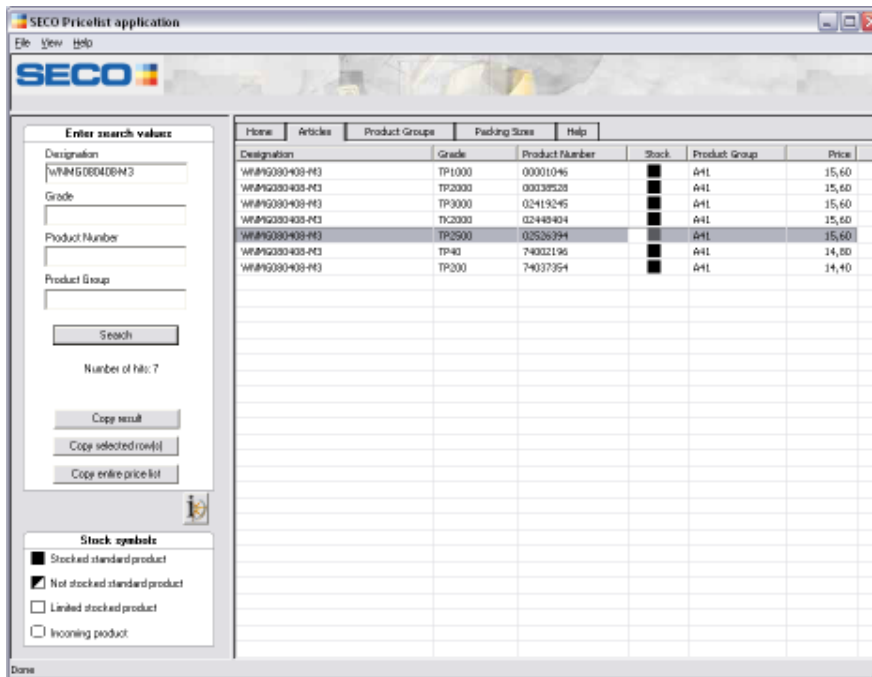
A new feature here is the insert picture showing the basic shape of the selected insert.



The symbols in the Secolor matrix show in what material group/applications the insert can be used. User should always try to find inserts in the primary work area. See symbol information in the table below.

Symbol in matrix	Description
	Primary work areas for insert.
	Secondary work areas for inserts.

Selecting an insert in the list will also enable the Show Pricelist button on top that will open the PriceCD-application and give the price for the selected insert (if the application is installed).



2.2.2 Sorting of output in product list

The products are sorted in two groups, one with primary working areas and one with secondary work area (green and yellow).

Within each group the products are sorted after wear resistance.

Products with higher wear resistance will be placed higher up in the list

2.2.3 Alternative inserts

The SSG will automatically guide to inserts with a deviant designation showed in following examples:

- 1) Search for CNMG will include CNMA if Cast iron is marked.
- 2) Search for TNMG will include TNMX if High Feed Turning is marked.
- 3) Search for CCMT will include CCGT if Non-ferrous Metal is marked.

2.3 Cutting data

The screenshot shows the SECO Selection Guide software interface. On the left, there are search parameters including ISO/ANSI selection, insert designation, method (Conventional/Wipe), application (F, M, R), and ISO Workpiece Material Group (P, M, K, N, S, H). The main area displays a table of results with 943 items found. The table has columns for Description, Grade, a_p (mm), f_n (mm/f), v_c (m/min), and MatGrp. A red box highlights the cutting data for the TP2000 grade, showing $a_p = 1.50$ mm, $f_n = 0.45$ mm/f, and $v_c =$ m/min. Below the table, there are two 3D models of inserts and a 'Cutting data' section with a red box around it.

Description	Grade	a_p (mm)		f_n (mm/f)		v_c (m/min)		MatGrp
		Rec.	Range	Rec.	Range	Rec.	Range	
PCMT0602M0-F1	TP200							
PCMT0602M0-F1	TP2000	0.50	0.10-1.50	0.30	0.10-0.40			4
PCMT0602M0-F1	TP2500	0.50	0.10-1.50	0.30	0.10-0.40			4
PCMT0602M0-F1	TP3000	0.50	0.10-1.50	0.30	0.10-0.40			4
PCMT0602M0-F2	TP1000	0.90	0.20-1.50	0.50	0.10-0.75			4
PCMT0602M0-F2	TP2000	0.90	0.20-1.50	0.50	0.10-0.75			4
PCMT0602M0-F2	TP3000	0.90	0.20-1.50	0.50	0.10-0.75			4
PCMT0603M0-F1	CP900							
PCMT0603M0-F1	TP200							
PCMT0603M0-F1	TP2000	1.00	0.20-3.00	0.40	0.13-0.50			4
PCMT0603M0-F1	TP2500	1.00	0.20-3.00	0.40	0.13-0.50			4
PCMT0603M0-F1	TP3000	1.00	0.20-3.00	0.40	0.13-0.50			4
PCMT0603M0-F2	TP1000	1.20	0.20-3.00	0.60	0.13-1.00			4
PCMT0603M0-F2	TP2000	1.20	0.20-3.00	0.60	0.13-1.00			4
PCMT0603M0-F2	TP3000	1.20	0.20-3.00	0.60	0.13-1.00			4
PCMT10T3M0-F1	CP900							
PCMT10T3M0-F1	TP200							
PCMT10T3M0-F1	TP2000	1.50	0.20-4.00	0.45	0.15-0.60			4

Information for selected insert:

Cutting data:
 $a_p = 1.50$ mm (0.20-4.00)
 $f_n = 0.45$ mm/f (0.15-0.60)
 $v_c =$ m/min ()
 MatGrp: 4

Cutting data recommendations are available for all new insert grades (TPXX00, TKX000 etc.). The same cutting data can be found on bottom of the insert box. General recommendation and intervals are given for:

a_p – Depth of cut

f_n – Feed speed

v_c – Cutting speed

In this new version the cutting data recommendations is presented in 2 different ways, first in the result table and also in the information section for the selected insert. The new result table gives you the possibility to sort inserts by the cutting data recommendations.

2.4 Help texts



Help texts are shown if the cursor is hovered above the following texts:

- Conventional turning
- High Feed turning
- ISO work piece material group: P, M, K, M, S, and H.
- Application: F, M, R

The information shown in the help texts are the same as described in chapter 2.1.

3 System

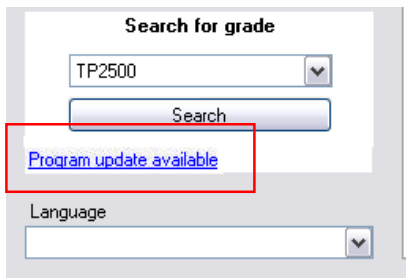
3.1 Requirements

The application is designed for Windows 2000 or later and it requires Microsoft .Net framework 2.0 to be installed.
(If it is not installed, the application will link to Microsoft's download server)

3.2 Updates

When downloaded and installed on the computer, SSG automatically updates data files from Seco's website.

If a software update is available a link will be shown.



When clicked it will automatically update the software and restart itself.

No effort needed by the user, what so ever!