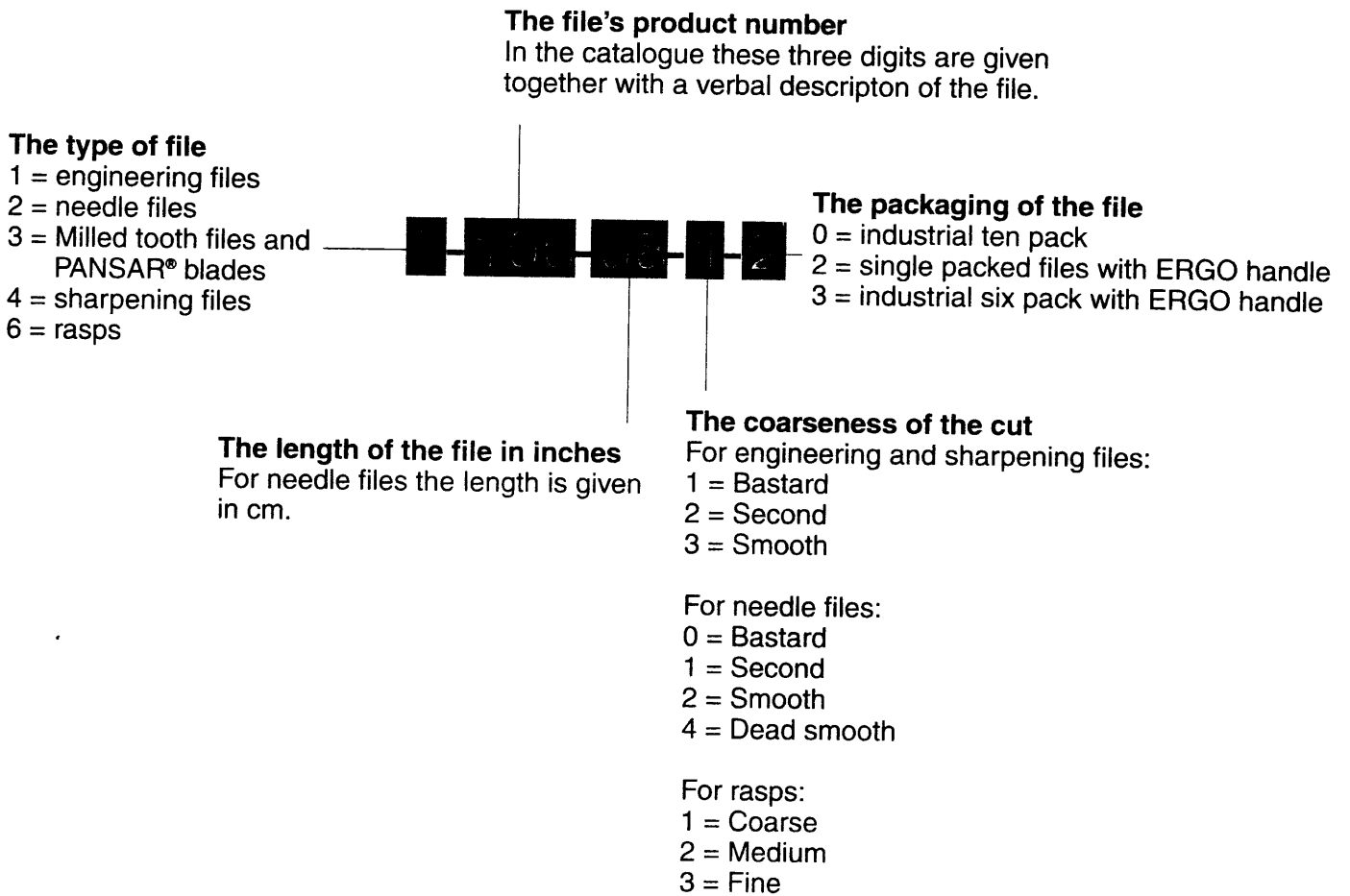




Article code structure

The importance of easily being able to identify the Sandvik file in catalogues or in the warehouse has been the main factor behind the Sandvik code structure. The code is logically built with an identifying piece of information in each digit.

The majority of Sandvik files fits into the code structure explained below. The example is describing the eight inch 106 Öberg cut.





Practical packaging for industrial deliveries

Industry pack, with handle



Sandvik is the first file manufacturer to offer a complete handled file assortment to the professional user.

The file is equipped with the Ergo handle which is ergonomically designed to reduce muscle tension and the risk of injury. The handle has a comfortable non-slip grip and its smooth contours reduce the pressure in the palm of the hand. The handle is asymmetric to help identify which side of the file is being used, and it has an incorporated hanging hole. A very important safety feature is that the handle covers the file tang and the sharp shoulder of the file completely, thus preventing the hand from slipping on to any sharp file edge.

The handled files for industrial distribution are packed six files in a strong cardboard box. Each file is individually packed in a reusable sleeve. A label is placed on the front with product information for easy identification and handling throughout the distribution chain.

Industry pack, unhandled




The traditional assortment of unhandled files remains in the assortment and they are packed 10 files per box. The outside of the box features the Sandvik black and orange identity. A label is placed at the end of the box for easy reading. Each label is clearly printed with article code, bar code and a short description of the file.

Boxes containing unhandled engineering files and rasps are marked with colour labels that correspond to international standards:

 = cut 1 (bastard)

Yellow = cut 2 (second)

 = cut 3 (smooth)

The boxes with sharpening and needle files are marked with white labels.



Informative packaging for display racks

Sandvik consumer research indicates that a number of aspects are important for file packaging in consumer outlets. The customer would like:

- to be able to see and touch the file
- to be able to grip the handle
- to easily understand which are the most suitable applications
- to have information on how to choose the right file
- to receive the product in an recyclable packaging

Most packages in the market today meet only one or two of these demands, but Sandvik has designed a new packaging concept that meets all five demands. The packaging provides high visual impact with special attention drawn to the unique ERGO handle.

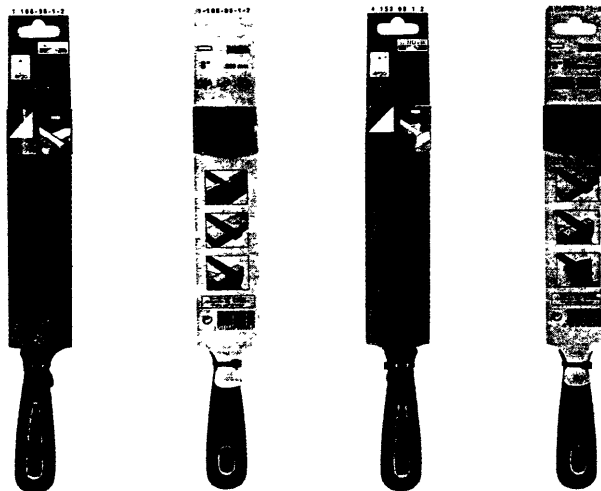
The colour coding on the packaging gets the customer started in the right direction. This visual coding makes it possible to immediately focus on the group of files most suitable for the job at hand. The images on the packaging are also repeated on display signs and printed material for consistent and direct communication.



Blue colour for Metal

Orange colour for Sharpening

Yellow colour for Wood



Further information about the best applications for each file is given on the back of the card. Each packaging has the bar code clearly printed for easy handling and stock control. The Sandvik single packed files are packed five per box.

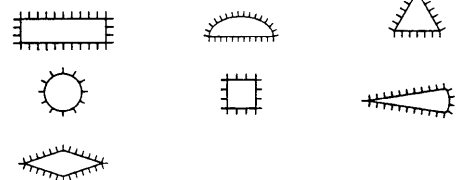


Description of Sandvik files

It is the shape and size of the workpiece, the material from which it is made and the desired finish that determine the choice of file. On the following pages you will find information on the areas of application of the different files.

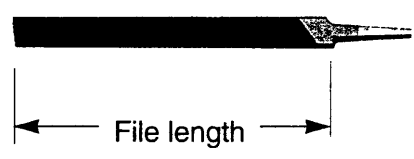
Hand files are divided into four main areas: engineering files, needle files, sharpening files and milled files (including PANSAR® blades). The Sandvik range covers all these areas meeting requirements of most national and international standards with ample margin.

Type/Shape



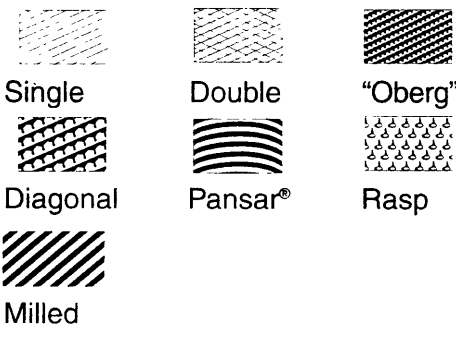
The different names given to files vary according to their shape and use. The most common names are: hand, flat, half round, three square, round, square, knife and double edge.

Length



The Sandvik range includes files from 4" (100 mm) in length to 14" (350 mm), depending on type. The most suitable file length depends entirely on the work to be done. The length of the file is always given exclusive of the tang, with exception of needle files where the total length includes the tang.

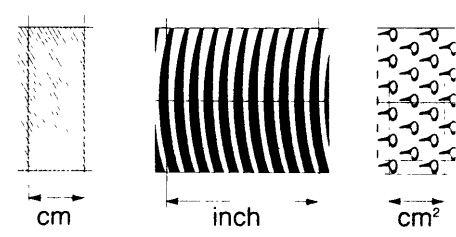
Tooth type and cut



The tothing of a file can vary in many different ways. Different types of cut are chosen depending on the work material, the desired rate of material removal and the desired finish. The most common cuts are: single cut, double cut, Öberg cut, diagonal cut, milled cut, PANSAR® and rasp cut.

For all cut engineering, needle and sharpening files, the coarseness of the cut is given in number of whole teeth per centimetre along the length of the file. The most common degrees of coarseness are bastard, second and smooth.

The main rule is that the coarser the cut, the more material is removed. If, however, a particular work operation requires a smooth finish, a file with a smooth cut should be chosen.



For diagonal files, milled files and PANSAR® blades, the degree of coarseness is given in number of whole teeth per inch ("). The coarseness of the rasps is given in number of tooth tips per cm².



Choose a file according to the work operation

	Single cut	Double cut			Öberg cut	Diagonal	Milled Pansar	Rasp
		Bastard	Second	Smooth				
Fine filing Sharpening	●		◐	●	◐		●	
Deburring Edging	●	◐	●	●	◐	◐	◐	
Rough filing Material removal		●			●	●		●

Choose a file according to the work material

	Single cut	Double cut			Öberg cut	Diagonal	Milled Pansar	Rasp
		Bastard	Second	Smooth				
High alloy steel	●	◐	●	●	◐		●	
Unhardened steel	●	●	●	●	●	●	●	
Cast iron		●	●	◐	●	●		
Brass, bronze		●	●	◐	●	●	●	
Aluminium		◐				●	●	
Wood and hard plastics					◐	◐	●	●

● = best choice, recommended

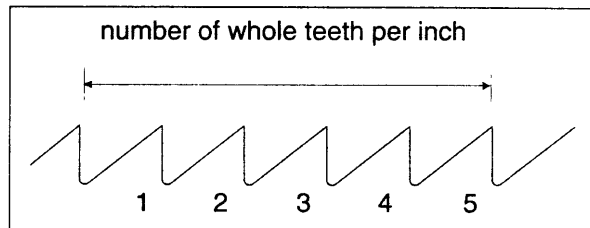
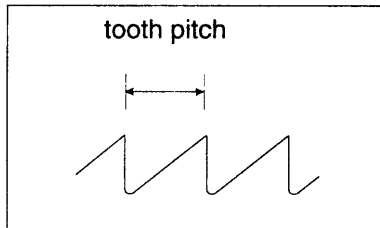
◐ = good choice, adequate



Choosing triangular taper files for different types of saw

When you are going to sharpen a saw, remember that a hardpoint saw cannot be filed. Use the longest file possible for smooth and efficient filing.

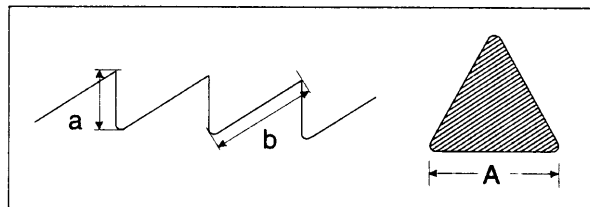
In choosing a file for sharpening a saw, it is important to know the pitch of the saw, which is usually given in number of whole teeth per inch.



Number of teeth per inch in drawing = 5 tpi

The following rule applies to choosing triangular taper files for universal and rip-toothed saws, especially for band saws:

$A > a + b$



Saw file table

Universal and cross-toothed hand saws					
Teeth/ inch	File type No./length				
	183	186	187	188	190
2 1/2	10"				
3	8"				
3 1/2	7"				
4	6"	8"			
4 1/2	5"	8"			
5	5"	7"			
6	4"	6"	7"		
7		5"	6"		8"
8		5"	5"	6"	7"
9		4"	5"	6"	6"
10			4"	5"	
11				5"	
12, 13				4"	
14, 15				4"	

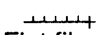
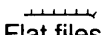
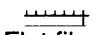
Band saw blades					
Teeth/ inch	Edge radius	File type No./length			
		192	202	203	204
2 1/2	1,4				8 1/2"
3	1,3	8"	8 1/2"		
3 1/2	1,2	7"			
4	1,1	6"			
4 1/2	1,0	5"			
5	0,7			8 1/2"	
Straight-toothed saws					
Teeth/inch	File type No./length				
3 1/2-4	8" double edge saw file 270				
4 1/2-5	5" double edge saw file 270 or 6" double edge saw file Wasa® 272, 273				
5 1/2-8	5" or 6" double edge saw file Wasa® 272, 273				



Table of flat sharpening files

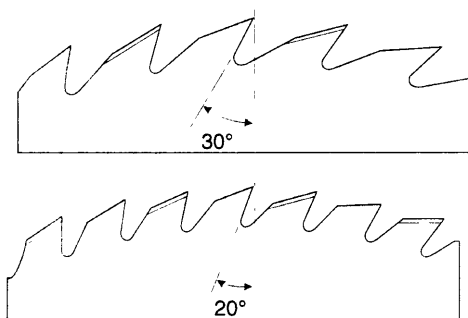
Flat sharpening files are intended primarily for sharpening steel saw blades. They are also very useful as engineering files and sharpening files

for different types of edge tool. As engineering files, they are ideal for all types of work operation where a high surface finish is required.

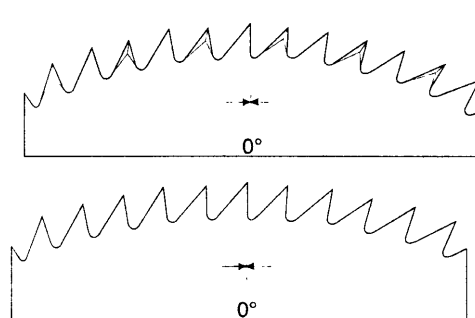
Cross section of file	File No.	Use
 Flat files with 1 round edge and 1 straight edge	138 144	These files are primarily intended for sharpening various types of saw blades. The files are also suitable for polishing, deburring work, material removal and draw filing.
 Flat files with 2 round edges	140	A file developed especially for circular and band saw blades as well as for felling and gang saws with fine tothing. This file can also be used for rounding the gullets.
 Flat files with 2 straight edges	142	A universal sharpening file for agricultural tools such as axes and hoes. The file can also be used for polishing and deburring work in lathes.

Circular and felling saws

Tooth shapes A and D



Tooth shapes F and C



Tooth pitch mm	File length	
	inch	mm
39-44	14	350
32-38	12	300
26-31	10	250
21-25	8	200
17-20	6	150

Tooth pitch mm	File length	
	inch	mm
26-31	14	350
21-25	12	300
17-20	10	250
13-16	8	200
10-12	6	150



SANDVIK

Hand file

Use

For filing flat surfaces, sharp corners and shoulders as well as for deburring. A double cut file should be used for work in high-alloy tool steels. Also useful for the sharpening of heavy implements. High removal rate.

Shape

Edges and surfaces parallel. Surfaces double cut, one edge uncut, one edge single cut.

1-100



Type of cut: 1 = Bastard, 2 = Second, 3 = Smooth.



Industry pack, with handle



Product code	EAN code 731151+		Dimensions length		section mm	Teeth per cm	Type of cut	
			mm	inch				
1-100-06-1-3	8202538	6	150	6	16 x 4	13	1	110
1-100-06-2-3	8202545	6	150	6	16 x 4	18	2	110
1-100-06-3-3	8202552	6	150	6	16 x 4	22	3	110
1-100-08-1-3	8202569	6	200	8	20 x 5	10	1	200
1-100-08-2-3	8202576	6	200	8	20 x 5	14	2	200
1-100-08-3-3	8202583	6	200	8	20 x 5	18	3	200
1-100-10-1-3	8202590	6	250	10	25 x 5,5	9	1	310
1-100-10-2-3	8202613	6	250	10	25 x 5,5	12	2	310
1-100-10-3-3	8202644	6	250	10	25 x 5,5	16	3	310
1-100-12-1-3	8202668	6	300	12	30 x 6	8	1	431
1-100-12-2-3	8202682	6	300	12	30 x 6	11	2	431
1-100-12-3-3	8202712	6	300	12	30 x 6	14	3	431

Industry pack, unhandled



1-100-04-1-0	8019006	10	100	4	12 x 3	17	1	30
1-100-04-2-0	8019013	10	100	4	12 x 3	22	2	30
1-100-04-3-0	8019020	10	100	4	12 x 3	28	3	30
1-100-06-1-0	8019037	10	150	6	16 x 4	13	1	73
1-100-06-2-0	8019044	10	150	6	16 x 4	18	2	73
1-100-06-3-0	8019051	10	150	6	16 x 4	22	3	73
1-100-08-1-0	8019068	10	200	8	20 x 5	10	1	145
1-100-08-2-0	8019075	10	200	8	20 x 5	14	2	145
1-100-08-3-0	8019082	10	200	8	20 x 5	18	3	145
1-100-10-1-0	8019099	10	250	10	25 x 5,5	9	1	250
1-100-10-2-0	8019105	10	250	10	25 x 5,5	12	2	250
1-100-10-3-0	8019112	10	250	10	25 x 5,5	16	3	250
1-100-12-1-0	8019129	5	300	12	30 x 6	8	1	392
1-100-12-2-0	8019136	5	300	12	30 x 6	11	2	392
1-100-12-3-0	8019143	5	300	12	30 x 6	14	3	392
1-100-14-1-0	8019150	5	350	14	35 x 6,5	7	1	605
1-100-14-2-0	8019167	5	350	14	35 x 6,5	10	2	605



Single pack carded



1-100-06-1-2	8000233	5	150	6	16 x 4	13	1	110
1-100-06-2-2	8003593	5	150	6	16 x 4	18	2	110
1-100-08-1-2	8000264	5	200	8	20 x 5	10	1	200
1-100-08-2-2	8003609	5	200	8	20 x 5	14	2	200
1-100-10-1-2	8000295	5	250	10	25 x 5,5	9	1	310
1-100-10-2-2	8003616	5	250	10	25 x 5,5	12	2	310
1-100-12-1-2	8028053	5	300	12	30 x 6	8	1	431



Flat file

Use

For the same jobs as the hand file 100, but is sometimes preferred because its pointed shape enables the user to reach more easily into angles and corners.

Shape

Edges tapered towards the point, surfaces parallel. Surfaces double cut, edges single cut. 4" and 6" pointed, 8" and longer semi-pointed.



1-110

Type of cut: 1 = Bastard, 2 = Second, 3 = Smooth.

Product code	EAN code 731151+		Dimensions		section mm	Teeth per cm	Type of cut	
			length mm	inch				
1-110-06-1-3	8203146	6	150	6	16 x 4	13	1	110
1-110-06-2-3	8203153	6	150	6	16 x 4	18	2	110
1-110-06-3-3	8203160	6	150	6	16 x 4	22	3	110
1-110-08-1-3	8203177	6	200	8	20 x 5	10	1	180
1-110-08-2-3	8203184	6	200	8	20 x 5	14	2	180
1-110-08-3-3	8203191	6	200	8	20 x 5	18	3	180
1-110-10-1-3	8203207	6	250	10	25 x 5,5	9	1	270
1-110-10-2-3	8203214	6	250	10	25 x 5,5	12	2	270
1-110-10-3-3	8203221	6	250	10	20 x 5,5	16	3	270
1-110-12-1-3	8203238	6	300	12	30 x 6	8	1	413
1-110-12-2-3	8203245	6	300	12	30 x 6	11	2	413
1-110-12-3-3	8203252	6	300	12	30 x 6	14	3	413
1-110-04-1-0	8019334	10	100	4	12 x 3	17	1	27
1-110-04-2-0	8019341	10	100	4	12 x 3	22	2	27
1-110-04-3-0	8044046	10	100	4	12 x 3	28	2	27
1-110-06-1-0	8019358	10	150	6	16 x 4	13	1	60
1-110-06-2-0	8019365	10	150	6	16 x 4	18	2	60
1-110-06-3-0	8019372	10	150	6	16 x 4	22	3	60
1-110-08-1-0	8019389	10	200	8	20 x 5	10	1	130
1-110-08-2-0	8019396	10	200	8	20 x 5	14	2	130
1-110-08-3-0	8019402	10	200	8	20 x 5	18	2	130
1-110-10-1-0	8019419	10	250	10	25 x 5,5	9	1	245
1-110-10-2-0	8019426	10	250	10	25 x 5,5	12	2	245
1-110-10-3-0	8019433	10	250	10	20 x 5,5	16	3	245
1-110-12-1-0	8019440	5	300	12	30 x 6	8	1	368
1-110-12-2-0	8019457	5	300	12	30 x 6	11	2	368
1-110-12-3-0	8019464	5	300	12	30 x 6	14	3	368
1-110-14-1-0	8019488	5	350	14	35 x 6,5	7	1	570
1-110-06-2-2	8003623	5	150	6	16 x 4	18	2	110
1-110-08-1-2	8000332	5	200	8	20 x 5	10	1	180
1-110-08-2-2	8003630	5	200	8	20 x 5	14	2	180
1-110-10-1-2	8000349	5	250	10	25 x 5,5	9	1	270
1-110-10-2-2	8003647	5	250	10	25 x 5,5	12	2	270

ergo®

Industry pack, with handle



Industry pack, unhandled



ergo®

Single pack carded





Use

For deburring and filing angles and inner corners. For filing of holes and large fillets as well as concave surfaces. Its tapered surfaces make it well suited for flat filing.

Three square file

Shape

Equilateral triangle. Tapered towards the point. Double cut surfaces.



1-170

Type of cut: 1 = Bastard, 2 = Second, 3 = Smooth.

Product code	EAN code 731151+		Dimensions length		section mm	Teeth per cm	Type of cut	
			mm	inch				
1-170-06-1-3	8202651	6	150	6	11	13	1	103
1-170-06-2-3	8202675	6	150	6	11	18	2	103
1-170-06-3-3	8202699	6	150	6	11	22	3	103
1-170-08-1-3	8202705	6	200	8	15,5	10	1	203
1-170-08-2-3	8202767	6	200	8	15,5	14	2	203
1-170-08-3-3	8202774	6	200	8	15,5	18	3	203
1-170-10-1-3	8202781	6	250	10	17,5	9	1	295
1-170-10-2-3	8202798	6	250	10	17,5	12	2	295
1-170-10-3-3	8202804	6	250	10	17,5	16	3	295
1-170-12-1-3	8202811	6	300	12	19,5	8	1	420
1-170-12-2-3	8202828	6	300	12	19,5	11	2	420
1-170-04-2-0	8019945	10	100	4	6,2	22	2	19
1-170-04-3-0	8019952	10	100	4	6,2	28	3	19
1-170-06-1-0	8019969	10	150	6	11	13	1	57
1-170-06-2-0	8019976	10	150	6	11	18	2	57
1-170-06-3-0	8019983	10	150	6	11	22	3	57
1-170-08-1-0	8019990	10	200	8	15,5	10	1	160
1-170-08-2-0	8020002	10	200	8	15,5	14	2	160
1-170-08-3-0	8020019	10	200	8	15,5	18	3	160
1-170-10-1-0	8020026	10	250	10	17,5	9	1	245
1-170-10-2-0	8020033	10	250	10	17,5	12	2	245
1-170-10-3-0	8020040	10	250	10	17,5	16	3	245
1-170-12-1-0	8020057	5	300	12	19,5	8	1	370
1-170-12-2-0	8020064	5	300	12	19,5	11	2	370
1-170-06-2-2	8003715	5	150	6	11	18	2	103
1-170-08-1-2	8000417	5	200	8	15,5	10	1	203
1-170-08-2-2	8003722	5	200	8	15,5	14	2	203
1-170-10-1-2	8028107	5	250	10	17,5	9	1	295

ergo®

Industry pack, with handle



Industry pack, unhandled



ergo®

Single pack carded





SANDVIK

Half-round file

Use

For filing concave and flat surfaces and large holes. Suitable for deburring work.

1-210



Shape

Edges and surfaces tapered towards the point. 4" and 6" fully pointed, 8" and longer semi-pointed. Double cut.

Type of cut: 1 = Bastard, 2 = Second, 3 = Smooth.

ergo®

Industry pack, with handle



Product code	EAN code 731151+		Dimensions		Teeth per cut	Type of cut		
			length mm	inch				
1-210-06-1-3	8202736	6	150	6	16 x 4,7	13	1	100
1-210-06-2-3	8202835	6	150	6	16 x 4,7	18	2	100
1-210-06-3-3	8202842	6	150	6	16 x 4,7	22	3	100
1-210-08-1-3	8202859	6	200	8	20,5 x 6	10	1	170
1-210-08-2-3	8202866	6	200	8	20,5 x 6	14	2	170
1-210-08-3-3	8202873	6	200	8	20,5 x 6	18	3	170
1-210-10-1-3	8202880	6	250	10	26,5 x 7,5	9	1	344
1-210-10-2-3	8202903	6	250	10	26,5 x 7,5	12	2	344
1-210-10-3-3	8202910	6	250	10	26,5 x 7,5	16	3	344
1-210-12-1-3	8202927	6	300	12	31 x 9	8	1	480
1-210-12-2-3	8202934	6	300	12	31 x 9	11	2	480
1-210-12-3-3	8202941	6	300	12	31 x 9	14	3	480

Industry pack, unhandled



1-210-04-1-0	8020071	10	100	4	10 x 3	17	1	15
1-210-04-2-0	8020088	10	100	4	10 x 3	22	2	15
1-210-04-3-0	8020095	10	100	4	10 x 3	28	3	15
1-210-06-1-0	8020101	10	150	6	16 x 4,7	13	1	52
1-210-06-2-0	8020118	10	150	6	16 x 4,7	18	2	52
1-210-06-3-0	8020125	10	150	6	16 x 4,7	22	3	52
1-210-08-1-0	8020132	10	200	8	20,5 x 6	10	1	127
1-210-08-2-0	8020149	10	200	8	20,5 x 6	14	2	127
1-210-08-3-0	8020156	10	200	8	20,5 x 6	18	3	127
1-210-10-1-0	8020163	10	250	10	26,5 x 7,5	9	1	243
1-210-10-2-0	8020170	10	250	10	26,5 x 7,5	12	2	243
1-210-10-3-0	8020187	10	250	10	26,5 x 7,5	16	3	243
1-210-12-1-0	8020194	5	300	12	31 x 9	8	1	435
1-210-12-2-0	8020200	5	300	12	31 x 9	11	2	435
1-210-12-3-0	8020217	5	300	12	31 x 9	14	3	435
1-210-14-1-0	8020224	5	350	14	35 x 10	7	1	630

ergo®

Single pack carded



1-210-06-1-2	8000424	5	150	6	16 x 4,7	13	1	100
1-210-06-2-2	8003654	5	150	6	16 x 4,7	18	2	100
1-210-08-1-2	8000455	5	200	8	20,5 x 6	10	1	170
1-210-08-2-2	8000479	5	200	8	20,5 x 6	14	2	170
1-210-10-1-2	8000493	5	250	10	26,5 x 7,5	9	1	344
1-210-10-2-2	8003661	5	250	10	26,5 x 7,5	12	2	344
1-210-12-1-2	8028121	5	300	12	31 x 9	8	1	480


Use

For filing holes, large fillets and concave surfaces.

Shape

Tapered towards the point. 4" and 6" fully pointed, 8" and longer semi-pointed. Double cut.


1-230

Type of cut: 1 = Bastard, 2 = Second, 3 = Smooth.

Product code	EAN code 731151+		Dimensions length		section mm	Teeth per cm	Type of cut	
			mm	inch				
1-230-06-1-3	8202958	6	150	6	6	13	1	74
1-230-06-2-3	8202965	6	150	6	6	18	2	74
1-230-06-3-3	8202972	6	150	6	6	22	3	74
1-230-08-1-3	8202989	6	200	8	8	10	1	112
1-230-08-2-3	8202996	6	200	8	8	14	2	112
1-230-08-3-3	8203009	6	200	8	8	18	3	112
1-230-10-1-3	8203023	6	250	10	10	9	1	183
1-230-10-2-3	8203030	6	250	10	10	12	2	183
1-230-10-3-3	8203047	6	250	10	10	16	3	183
1-230-12-1-3	8203054	6	300	12	12	8	1	297
1-230-12-2-3	8203061	6	300	12	12	11	2	297
1-230-12-3-3	8203078	6	300	12	12	14	3	297
1-230-04-1-0	8020248	10	100	4	3,6	17	1	9
1-230-04-2-0	8020255	10	100	4	3,6	22	2	9
1-230-04-3-0	8020262	10	100	4	3,6	28	3	9
1-230-06-1-0	8020279	10	150	6	6	13	1	29
1-230-06-2-0	8020286	10	150	6	6	18	2	29
1-230-06-3-0	8020293	10	150	6	6	22	3	29
1-230-08-1-0	8020309	10	200	8	8	10	1	72
1-230-08-2-0	8020316	10	200	8	8	14	2	72
1-230-08-3-0	8020323	10	200	8	8	18	3	72
1-230-10-1-0	8020330	10	250	10	10	9	1	144
1-230-10-2-0	8020347	10	250	10	10	12	2	144
1-230-10-3-0	8020354	10	250	10	10	16	3	144
1-230-12-1-0	8020361	5	300	12	12	8	1	247
1-230-12-2-0	8020378	5	300	12	12	11	2	247
1-230-12-3-0	8020385	5	300	12	12	14	3	247
1-230-14-1-0	8020392	5	350	14	15	7	1	440
1-230-06-1-2	8000509	5	150	6	6	13	1	74
1-230-06-2-2	8000523	5	150	6	6	18	2	74
1-230-08-1-2	8000547	5	200	8	8	10	1	112
1-230-08-2-2	8000554	5	200	8	8	14	2	112
1-230-10-1-2	8000578	5	250	10	10	9	1	183
1-230-10-2-2	8003678	5	250	10	10	12	2	183

Industry pack, with handle



Industry pack, unhandled



Single pack carded







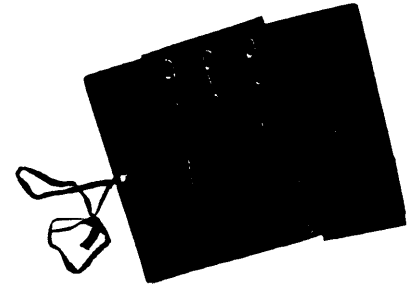
File set 473: Sets of three files with handle. Supplied in a plastic roll-up wallet with tie. Contains one each of: hand, half round and round engineering files. All second cut.

1-473

Type of cut: 2 = Second.

Product code	EAN code 731151+		Files per set	Dimensions length		Type of cut	
				mm	inch		
1-473-06-2-2	8201098	1	3	150	6	2	395
1-473-08-2-2	8201104	1	3	200	8	2	635
1-473-10-2-2	8201111	1	3	250	10	2	925



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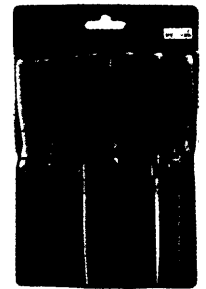


Key file set 476: A set of six 4" files smooth double cut, for fine filing and polishing jobs. Each set contains one handled file each of: hand, warding, square, three square, half round and round. Supplied in a snap-shut plastic wallet with hanging hole.

1-476

Type of cut: 3 = Smooth.

Product code	EAN code 731151+		Files per set	Dimensions length		Type of cut	
				mm	inch		
1-476-04-3-2	8010928	1	6	100	4	3	200



File set 477: Sets of five files with handle. Supplied in a plastic roll-up wallet with tie. Contains one each of: hand, half round, round, three square engineering files and a half round rasp. All second cut.

1-477/1-478/1-479



File set 478: Sets of five 8" engineers' files with handle. Supplied in a plastic roll-up wallet with tie. Contains one file each of: hand bastard, hand second, square bastard, half round bastard, round bastard.

File set 479: Sets of five 8" files with handle for carpentry and repair jobs. Supplied in a plastic roll-up wallet with tie. Contains one each of: hand, half round and round engineering files, a flat sharpening file and a cabinet rasp. Available in bastard and second cut.

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Type of cut: 1 = Bastard, 2 = Second.

Product code	EAN code 731151+		Files per set	Dimensions length		Type of cut	
				mm	inch		
1-477-08-2-2	8037994	1	5	200	8	2	960
1-477-10-2-2	8201074	1	5	250	10	2	1490
1-478-08-1-2	8141127	1	5	200	8	1+2	900
1-479-08-1-2	8176747	1	5	200	8	1	935
1-479-08-2-2	8180607	1	5	200	8	2	935