



# PRECISION TOOLS

for complicated procedures



2	Screwdrivers	8. N	Jutdrivare
<b>U</b>	OCICWUIIVCIS	$\alpha$	NULUIIVCI 3

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#### **B&S Screwdrivers for Professionals "Made in Germany"**

Durability, precision and perfect function.

No twisting or chipping of the screwdriver blades: hardened and refined knife blade steel for the perfect combination of hardness and flexibility.

Quickchange of the blade: perfectly accurate fit between blade and grip by simple clamping.

No pressure marks in your hand: ergonomic design, proven to work, offers a high level of functionality.

Don't be satisfied with anything less.

#### **B&S Designed Pro Screwdriver**

- Blade changing support for screwdriver and nutdriver
- With longer grip surface and bigger knob for comfortable work
- Coloured knob, the oval shape prevents the screwdriver moving on the workbench
- Shaft size 2.5 mm, blades to be clamped

120 2158-63

←→ 115 mm





#### **Pro Screwdriver Set**

- In a semi-circular wooden stand
- With 5 screwdrivers from the B&S Pro series
- 4 slotted blades 1.0; 1.4; 1.8; 2.3 mm, 1 Phillips head 2 mm

**120 2172** 1664 50

## Insertion Cup Holder Set

- 5 insertion cups, marked with different sizes
- To insert into desktops or the dispensing area







## OptiCar - Including Screwdrivers

- High quality metal design with free moving solid rubber wheels
- With 5 screwdrivers from the B&S Pro series
- 4 Slotted blades 1.0, 1.4, 1.8, 2.3 mm
- 1 Phillips head 2.0 mm

**120 2173** 1664 60



#### **Revolving Depot**

- Revolving aluminium stand
- With 6 screwdrivers from the B&S Pro series
- 4 Slotted blades 1.0; 1.4; 1.8; 2.3 mm
- 2 Phillips head 1.5 and 2.0 mm

**120 2174** 1664 61



#### **Plastic Depot**

- With 6 screwdrivers from the B&S Pro series
- 4 Slotted blades 1.0; 1.4; 1.8; 2.3 mm
- 2 Phillips head 1.5 and 2.0 mm

**120 2175** 1664 62



#### **B&S Nutdrivers for Professionals "Made in Germany"**

Durability, precision and perfect function.

No twisting or chipping of the screwdriver blades: hardened and refined knife blade steel for the perfect combination of hardness and flexibility.

Quick change blade: perfectly accurate fit between blade and grip by simple clamping.

No pressure marks in your hand: ergonomic design, proven to work, offers a high level of functionality.

Don't be satisfied with anything less.

#### **B&S** Designed Pro Nutdriver

- Blade changing support for screwdriver and nutdriver
- With longer grip surface and bigger knob for comfortable work
- Coloured, oval knob prevents moving on the workbench
- Shaft size: 2.5 mm, blades to be clamped

120 2164-71







## OptiCar - Including Nutdrivers

- High quality metal design with free moving solid rubber wheels
- With 5 nutdrivers from the B&S Pro series
- 2 Hexagon 2.3; 2.6 mm3 Star 2.1; 2.2; 2.6 mm

120 2176 1664 70



#### **Revolving Depot**

- Revolving aluminium stand
- With 8 nutdrivers from the B&S Pro series
- 4 Hexagon 2.0; 2.2; 2.3; 2.6 mm
- 4 Star 2.0; 2.1; 2.2; 2.6 mm

120 2177 1664 71



#### **Plastic Depot**

- With 8 nutdrivers from the B&S Pro series
- 4 Hexagon 2.0; 2.2; 2.3; 2.6 mm
- 4 Star 2.0; 2.1; 2.2; 2.6 mm

120 2178 1664 72





#### **B&S Screwdriver from the Standard Series**

- Blade changing support for screwdriver and nutdriver
- Ribbed grip surface for perfect grip
- Coloured, round knob flattened on one side, to prevent the screwdriver moving on the workbench
- Wing blades to avoid twisting inside the handle
- Shaft size: 3.0 mm, wing blade





#### **Revolving Depot**

- With 6 screwdrivers from the B&S Standard series
- 4 Slotted blades 1.0; 1.4; 1,8; 2.0 mm
- 2 Phillips head 1.5 and 2.0 mm

120 2204

1682 61



#### **Plastic Depot**

- With 6 screwdrivers from the B & S Standard series
- 4 Slotted blades 1.0; 1.4; 1.8; 2.0 mm
- 2 Phillips head 1.5 and 2.0 mm

120 2205



#### **B&S** Nutdriver from the Standard Series

- Blade changing support for screwdriver and nutdriver
- Ribbed grip surface for perfect grip
- Coloured, round knob flattened on one side, to prevent the screwdriver moving on the workbench
- Wing blades to avoid twisting inside the handle
- Shaft size: 3.0 mm, wing blade

**120 2206−13** ←→ 110 mm





#### **Revolving Depot**

- With 8 nutdrivers from the B&S Standard series
- 4 Hexagon 2.0; 2.2; 2.3; 2.6 mm
- 4 Star 2.0; 2.1; 2.2; 2.6 mm

120 2222

1682 91



#### **Plastic Depot**

- With 8 nutdrivers from the B&S Standard series
- 4 Hexagon 2.0; 2.2; 2.3; 2.6 mm
- 4 Star 2.0; 2.1; 2.2; 2.6 mm

120 2223





#### **B&S** Hex Driver from the Standard Series

- Blade with wings is fixed with an additional screwed cover
- Ribbed grip surface for perfect grip
- Coloured, round knob flattened on one side, to prevent the screwdriver moving on the workbench
- Hex driver for screws with hex bolt
- Shaft size: 3.0 mm



120 2229 1684 13 Hexagon 1.3





120 2232 1684 21 Hexagon 2.1



















Spare blade: 120 2239 1684 63

Spare blade: 120 2240 1684 65

Spare blade: 120 2241 1684 70

1684 71

Spare blade: 120 2242

Spare blades: Shaft size 3.0 mm, wing blade





#### **B&S** Torx Driver from the Standard Series

- Blade with wings is fixed with an additional screwed cover
- Ribbed grip surface for perfect grip
- Coloured, round knob flattened on one side, to prevent the screwdriver moving on the workbench
- Torx driver for screws with star bolt
- Shaft size: 3.0 mm







#### **B&S Designed Screwdriver with Blade Storage**

With large oval revolving plastic knob and 5 blades (accomodated in handle). The oval head prevents the screwdriver moving on the workstation. Shaft size: 2.5 mm

Blade width: ● 1.0; 1.4; 1.8; 2.3 mm, ● 2.0 mm







Suitable replacement blades No. 120 2264-66 and 120 2268-70 can be found on page C 2.

#### Screwdriver with Blade Storage

With plastic grip, large round revolving knob and 5 blades (accomodated in handle). Shaft size: 2.5 mm

Blade width: ● 1.0; 1.4; 1.8; 2.3 mm, ● 2.0 mm







Suitable replacement blades No. 120 2264-66 and 120 2268-70 can be found on page C 2.

## Screwdriver with Blade Storage

Same design as No. 120 2188, but with one blade only. Shaft size: 2.5 mm

Blade width: 

1.8 mm

120 2188





Suitable replacement blade No. 120 2266 can be found on page C 2.

#### Universal Screwdriver with Blade Storage

Nickel plated brass, with revolving plastic knob and 4 blades. Shaft size: 2.5 mm

Blade width: ● 1.5; 1.8; 2.3 mm, ● 2,0 mm

120 2282 1717 00

---- 115 mm





Suitable replacement blades No. 120 2264-66 and 120 2268-70 can be found on page C 2.

#### **Small Metal Screwdriver**

- With 5 different functions: Slotted, Phillips and 3 nutdriver blades
- Blade width: **•** 1,8 mm, **•** 1,8 mm
- Nutdriver: 2.02; 2.32 and 2.57 mm
- Colours: Blue, Red, Green, Purple, Orange



#### **Counter Display**

- With 10 small screwdriver No. 120 2356, with 5 functions
- Dimensions: DIN A4

**120 2358** 1798 56



## Spare Blades (without illustration)

Blade width	Туре	Kind of blade	Available for	Order No.	
1.0 mm	•	Blade	1662 10*, 1680 10*, 1700 10*	<b>120 2260</b> 1693 10	3 pieces
1.5 mm	•	Blade	1662 15*, 1680 15*, 1700 15*	<b>120 2261</b> 1693 15	3 pieces
1.8 mm	•	Blade	1662 18*, 1680 18*, 1700 18*	<b>120 2262</b> 1693 18	3 pieces
2.3 mm	•	Blade	1662 23*, 1680 23*, 1700 23*, 120 2294	<b>120 2263</b> 1693 23	3 pieces
1.0 mm		Blade	1669*	<b>120 2183</b> 1669 10	2 pieces
1.4 mm	•	Blade	1669*	<b>120 2184</b> 1669 14	2 pieces
1.8 mm	•	Blade	1669 *	<b>120 2185</b> 1669 18	2 pieces
2.0 mm	•	Crossblade	1669 *	<b>120 2187</b> 1669 25	2 pieces
2.3 mm	•	Blade	1682 23*, 1683 23*	120 2200 1682 43	3 pieces



#### A perfect Set.

From the Black Forest in Germany onto your work-bench. Assorted by sizes in a beech wooden case. Seven lean nutdrivers with the most used nutdriver blades made of high quality steel. The stop inside the blade which is typically for B&S nutdrivers prevents the nut from annoyingly "disappearing" into the shaft.

#### **Nutdriver Set**

#### **Content 7 nutdrivers:**

No. 120 2334; 120 2336; 120 2338; 120 2340; 120 2342; 120 2346 and

120 2333 1741 15





#### Single available:

120 2334

120 2336 1743 00

120 2338 1744 00 2.6 mm 



120 2340 ① 2.0 mm

→ 100 mm



① 2.1 mm

15 g



120 2344

2.8 mm

1747 00





120 2346 1748 00



Grip No. 8



120 2348

1749 00

Grip No. 9 Hexagonal,



120 2350

1767 00

Grip No. 0 Star nuts,

Grip No. 2

Big hex nuts

Grip No. 3 Big star nuts, 6 points



Grip No. 5 Big star nuts, 4 points

Star nuts, 6 points, for the most common nuts

Slotted nuts

Hex socket star type, 6 points

for dome nuts 6 points, for 120 1312-14

big star nuts

#### **Nutdriver Set**

#### Content 5 nutdrivers:

No. 120 2336; 120 2338; 120 2340; 120 2342 and 120 2346

120 2332 1741 05

13.5 x 2.7 x 9.6 cm







## Broken screw? No problem!

Here precision and comfort goes hand in hand. Broken screws can be pushed out cleanly and precisely with this handy tool. Simply fit on the hand CLAVULUS, tighten up the wing screw and with a few turns there will be space for a new screw.

#### **Handheld CLAVULUS**

- For the removal of broken screws
- Compact and ergonomic tool
- Power precisely through the wing screw
- For material saving use
- 3 exchangeable sleeves for different screw diameters included
- Hardwearing material (stainless steel)

120 2298 1727 00





#### Screw Remover with Blade Storage

The sharp edged blades grip the remains of broken off screws and enable you to unscrew the screw without the use of drilling machines.

Shaft size: 2.5 mm

Each unit includes 2 blades with diameter: 1.3 and 1.5 mm

120 2257 1691 00

→ 119 mm





#### **Spare Blades**

Blade width 1.3 mm 120 2258 1691 13

Blade width 1.5 mm

120 2259





#### **Aluminium Stand "Third Hand"**

- Stable stand
- With 3 exchangeable blades in the socket for securing screws or nuts
- Shaft size: 2.5 mm, blades to be clamped

1 screwdriver blade: Blade width: 2.3 mm 1 hex nutdriver: Inner diameter: 2.2 mm 1 star nutdriver: Inner diameter: 2.1 mm

#### 120 2294

1723 00



Suitable replacment blades
No. 120 2264–66 and 120 2268–70
can be found on page C 2.

#### Metal Stand "Third Hand"

- Stable stand
- With 5 exchangeable blades and 7 functions for securing screws or nuts
- Shaft size: 3.15 mm, wing blade

#### 1 screwdriver blade with double sided function:

Blade width: 1.5 and 1.8 mm

1 screwdriver Phillips head blade with double sided function:

Blade width: 1.5 and 1.8 mm 3 nutdriver blades (hexagon): Inner diameter: 2.0, 2.3 and 2.5 mm

## **120 2301** 1728 00



#### Spare Blade Set (without illustration)

To metal stand "Third Hand" No. 120 2301. Containing 5 blades.

**120 2302** 1728 01

#### "Third Hand" Stand (with Nut Gripper)

- A new combination of third hand stand and nut gripper
- Stable stand
- Retains nuts so that they can be screwed to the thread
- · For problem free gripping of nuts

#### 120 2296

1723 20



# Aluminium Stand "Third Hand" Extra Tall for Large Wing Blades

- Stable stand
- With 5 exchangeable blades and 7 functions for securing screws or nuts
- Shaft size: 3.15 mm, wing blade

#### 1 screwdriver blade with double sided function:

Blade width: 1.5 and 1.8 mm

1 screwdriver Phillips head blade with double sided function:

Blade width: 1.5 and 1.8 mm 3 nutdriver blades (hexagon):

Inner diameter: 2.0; 2.3 and 2.5 mm

#### 120 2303



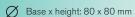
#### Fully developed. Workplace with high quality all-rounders.

This anvil tower is produced exclusively for B & S. With its unusual shape this heavy weight offers a range of advantages: Secure standing with its massive aluminium foot. Flexibility due to the handy size. Small repairs can be fixed on the round platform. Protecting the table surface from damage makes the rook anvil attractive to use for service repairs during a consultation. Depositing area for frame parts on the top. Just try it. Everyone who tries it will never want to be without it again.

#### **Rook Anvil**

- To fix screws on joints, hinges and nose pad arms
- Robust and stable, made of solid aluminium
- Depositing area for frame parts
- Cushioned base for gently carrying out work
- Can be fixed on the table by a standard M6 screw
- For workshop and sales area











#### Spare Rubber Ring (without illustration)

108 2030



#### 2 pieces

#### **Optician's Anvil**

• Polished chrome-plated, with round opening, one round and one square-shaped drift

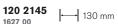
120 2309 1730 10





#### **Screw Driving Tweezer**

- Easy fixation of the screw by means of a lock at the middle of the tweezer
- Screw is fixed and ready to screw in, essential for spring hinges
- Moving knob at the end of the handle enables easy screwing







"Easy Mounting of Spring Hinges"

(see page B 43)



#### **Nut Gripper**

- Retains nuts so that they can be screwed to the thread
- For problem free gripping of **nuts**





#### Gripper

120 2148

Recessed both sides to pick up, grip and twist screws



180 g

#### Tweezer - Push-in Nose Pads

• For removal of "push-in nose pads"

→ 100 mm

→ 75 mm

Also available as pliers

120 2144

120 2146

1631 00

1626 00



•**→** 15 g







You will find our pliers No. 120 1886 and 120 1888 on page B 18.  $\,$ 

#### Tweezer - Thin Pointed

• With thin pointed tips, stainless steel

→ 110 mm



•**1**7 g

## Tweezer - Pointed

• Pointed, nickel plated

#### **Titanium Soldering Tweezer**

 Advantages: solder resistant, low heat conduction, 100 % antimagnetic, highly acid resistant, extremely light, with centering pin

#### **Solder Tweezer**

• With insulated grips, polished steel



## Angled - with Locking Mechanism

- A slotted notch in the tip to grip nose pads and hinge screws easily
- With a clamp to lock the screw
- The angled tip is useful for difficult to reach hinges

**120 2157**1653 00 110 mm 11 g



#### The Classic

• With grooves on both tips to hold pad screws and other small items





#### **Pointed Tip**

- Stainless steel, straight version
- Specially for pad screws
- To start rotating the screw into the thread



#### **Cross Tweezer**

• To start rotating the screw into the thread







#### Screw Holder with Locking Mechanism

- The locking mechanism ensures that the screw is held tightly
- Essential when fitting a screw to a spring hinge





Precision Tools

#### **Riveting Hammer**

• Gunmetal finish, square-shaped head, wooden handle, rounded corners

#### 120 2353

1781 10







#### **Riveting Hammer**

• Metal, bi-colour, round heads, one side metal, one side plastic

#### 120 2352

1772 00









#### **Trident Scraper**

• Conical, with handle

#### 120 2598

2071 00









#### **Swarf Removal Tool**

- Removing the edging residue from polycarbonate and Trivex lenses
- Deburring the groove of lenses for half rimless

#### 120 2599

2072 00







#### **Groove Scraper**

- Suitable for rough and smooth surfaces
- Adjustable for each size

#### 120 2600





**●** 40 g



#### Glass Cutter "Silberschnitt"®

• Superior quality "Made in Germany"

## 120 3051 2634 00







#### **Cutting Spoon**

- For cutting glass
- Mechanised system, handy design, metal type

#### 120 3052

2637 00







#### **Universal Cutting Wheel**

- Superior quality "Made in Germany"For glass cutter No. 120 3051 and cutting spoon No. 120 3052

#### 120 2719

2239 00



Ø 4.5 mm

12 pieces



Illustration enlarged



#### Scissors for plastic

- Multiple purpose scissors with plastic covered handles for easy cutting of patterns.
- One sided toothed cut (serrated edge)









#### **Small Scissors**

• With straight blades and screwed joint









#### **Scissor**

- Refined stainless steel, adjustable with screw
- Suitable for right and left-use

120 2135









- Practical cutting tool for frame inserts, nylon threads, foils etc.
- No squeezed edges due to extremely sharp blades
- Metal handle with 3 bits
- Blade length: 35 mm









#### Spare Blades for No. 120 2126

120 2128 1602 15

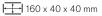
→ 35 mm

3 pieces

#### **Scalpel Set**

- For cutting nylon liner
- Content: 1 handle and 8 blades in different shapes and sizes

120 2132 1604 01







#### Reamers

• 5-sided, high-polished, without handle, with shaft

**120 2578–86** ③ 3 pieces

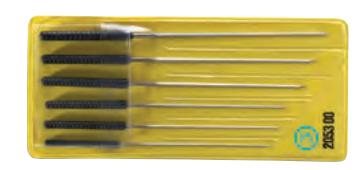
Order No.	Ø	Order No.	Ø
120 2578 2051 31 120 2579 2051 32 120 2580 2051 33 120 2581 2051 34 120 2582 2051 35	1.0 mm 1.1 mm 1.2 mm 1.3 mm 1.6 mm	120 2583 2051 36 120 2584 2051 37 120 2585 2051 38 120 2586 2051 39	1.7 mm 1.9 mm 2.0 mm 2.2 mm



#### **Reamer Assortment**

- 5-sided shaped reamers, fine grade, with knurled handle
- Reamers-Ø: 1.0; 1.1; 1.2; 1.4; 1.6 and 1.8 mm





#### **Reamer Assortment for Single Jets**

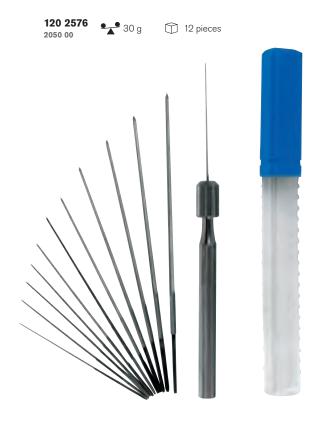
- With plastic handle, for cleaning of jets
- Reamers-Ø: 0.05; 0.08; 0.10; 0.15; 0.20; 0.25; 0.30; 0.35;
   0.40; 0.45; 0.50 and 0.55 mm





#### **Reamer Assortment**

- 5-sided reamers, fine grade without handle, with shaft and with holder
- Contents: No. 120 2578; 120 2579; 120 2580; 120 2581; 120 2582; 120 2583; 120 2584; 120 2585 and 120 2586



#### **Screw Tap**

- With 3 milled grooves, expertly ground and hardened for top quality finish
- For correct order no's see chart below

#### **Screw Tap Handle**

- Plastic, marked with individual tap sizes
- For correct order no's see chart below

→ 85 mm





Illustration enlarged



Thread size	Shaft size	Order No. for screw taps	Order No. for screw tap handles
M 0.80 mm	1.45 mm	<b>120 2432</b> 1962 08	<b>120 2314</b> 1736 08
M 1.00 mm	1.45 mm	<b>120 2433</b> 1962 10	<b>120 2316</b> 1736 10
M 1.10 mm	1.45 mm	<b>120 2434</b> 1962 11	<b>120 2318</b> 1736 11
M 1.20 mm	1.45 mm	<b>120 2435</b> 1962 12	<b>120 2320</b> 1736 12
M 1.30 mm	1.45 mm	<b>120 2436</b> 1962 13	<b>120 2322</b> 1736 13
M 1.40 mm	1.45 mm	<b>120 2437</b> 1962 14	<b>120 2324</b> 1736 14
M 1.50 mm	1.75 mm	<b>120 2438</b> 1962 15	<b>120 2326</b> 1736 15
M 1.60 mm	1.95 mm	<b>120 2439</b> 1962 16	<b>120 2328</b> 1736 16
M 1.70 mm	1.95 mm	<b>120 2440</b> 1962 17	<b>120 2330</b> 1736 17
M 1.80 mm	2.00 mm	<b>120 2441</b> 1962 18	-

#### **Screw Tap Assortment**

- In wooden box
- Contents: 9 screw taps, ready to use, in sizes: M 0.80; M 1.00; M 1.10; M 1.20; M 1.30; M 1.40; M 1.50; M 1.60; M 1.70; 1 mandrel No. 120 2283 and 1 empty space

#### **Screw Tap Assortment**

- In plastic box
- Contents: 3 screw taps of each No. 120 2432; 120 2433; 120 2435; 120 2436; 120 2437 and 1 tool holder No. 120 2592

**120 2442** 1980 00



**120 2444** 1981 00



#### **Measurement Tool for Holes** 1.0 to 1.6

- Easy and quick measuring of hole sizes in lenses
- With rounded tips for an easy measuring of hole sizes in lenses
- High quality design
- 6 spikes in sizes: 1.0; 1.2; 1.3; 1.4; 1.5 and 1.6 mm

120 2286 1718 11



Outer: 65 mm





#### **Measurement Tool for Holes** 1.0 to 2.4

- Easy and quick measuring of hole sizes in lenses
- With rounded tips for an easy measuring of hole sizes in lenses
- High quality design
- 10 spikes in sizes: 1.0; 1.1; 1.2; 1.4; 1.5; 1.6; 1.8; 2.0; 2.2 and 2.4 mm

120 2287 1718 12



Outer: 80 mm







#### **Mandrel**

- Special support for screw setting on hinges
- Conical
- With plastic handle

120 2283







#### Spare Mandrel (without illustration)

For No. 120 2283

120 2285 1718 01

# TIPS & TRICKS

HENRY - A LITTLE HELPER IN MANY SITUATIONS
Triple Protection against Scratches

Lens Protection Henry made of Silicone

No. 109 2360

Screwdrivers for Professionals

used for example: No. 120 2162

Precision File

No. 120 2395

Side Cutter

No. 120 2091



approx. 3 minutes each

## This is how it works

Option 1: While mounting nose pads





2 MOUNTING OF NOSE PADS



Option 2: While mounting rim joints

1 ATTACH



2 UNSCREW/TIGHTEN



Option 3: Cutting screws on rimless frames

1 ATTACH



2 CUT OFF



3 LEVEL WITH A FILE





#### **Lens Protection Henry**

- Protects the lenses from scratches: while mounting nose pads, during the assembly of rimless frames and while mounting rim joints
- Made of silicone















#### **Lens Protection Shim Plate**

- Distance and protection plate for easily cutting plastic sleeves (1.4 and 1.8 mm) close to the lens
- Nylon liner (max. 1.0 mm diameter) can be fixed and shortened easily close to the lens
- Suitable to remove remnants from PC lenses after the edging process











#### Lens Protection Shim Plate with Long Holes

- Distance and protection plate for easily removing the sleeves
- Facilitates the dismounting of the frame
- Suitable to remove remnants from PC lenses after the edging process

109 6681 2269 10







# TIPS & TRICKS

#### **NYLON LINER TOOL**

# Finally the Threading is Fun

**Nylon Liner Tool** No. 109 5079

Tweezer - Thin Pointed

No. 120 2146

Nylon Thread Hook

No. 120 2288

**Small Scissors** 

No. 120 2136



approx. 5 minutes each

# This is how it works





2 REMOVE



3 THREAD



4 SET IN



5 CUT TO SIZE



6 THREAD



7 INSERT



#### **Nylon Liner Tool**

For easy threading of the 8-profile nylon liner into the upper or lower frame rim.

- Total length: 110 mm
- Diameter cylinder: 15 mm
- Nylon liner: 0.51 mm and 0.55 mm

#### 109 5079

1365 00



## **Nylon Thread Hook**

→ 105 mm

120 2288

For easy assembly of lenses into supra frames





You will find our nylon threads on page F 85.



#### **Sleeve Removing Tool for Rimless Frames**

- Small tool which helps to get the frame and leftovers from the sleeves out of the lens
- Fits for all frames with 1.4 pins and standard drill hole distances







## TIPS & TRICKS

#### FITTING TOOL FOR RIMLESS FRAMES

# Shorten Screws without a Burr!

Works as a Nut Driver and Screw Cutter in One Tool

For screws with 1.2 mm thread size

No. 109 7803

For screws with 1.4 mm thread size

No. 109 7804



approx. 30 seconds

# This is how it works

#### **1** MOUNTING



#### 2 TURN AROUND



3 ATTACHING



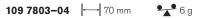
4 CUTTING



5 DONE



#### Works as a Nut Driver and Screw Cutter in One Tool



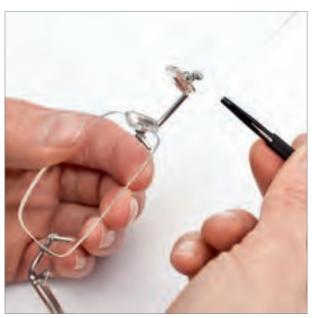


## 109 7803 O

- To shorten screws with 1.2 mm thread
- For all popular hex nuts with an outer diameter of max. 2.7 mm

## 109 7804 O

- To shorten screws with **1.4 mm** thread
- For all popular star nuts with an outer diameter of max. 2.5 mm



#### **Drill Hole Chamfer Tool**

- For easy chamfering of drill holes
- The special shape chamfers the edges quickly and effectively using just slight pressure
- Countersinks are no problem
- Clockwise rotation for clean, optimum results
- Only recommended for plastic, Polycarbonate or Trivex lenses









#### **Tool Kit for Rimless Frames**

- Practical tool kit for rimless frames
- Consisting of No. 109 7803 and 109 7804 fitting tool for 1.2 mm and 1.4 mm thread and No. 120 2750 drilled hole reamer





#### **Drilled Hole Reamer**

- Suitable for tool holders No. 120 2596, 120 2595 and 120 2593
- Shaft size: 1.6 mm





# Double Hand Miller with Hinge Miller and Screw End Miller

To work with hinge rolls and screw ends

# Duplex Hinge and Temple Miller

- To work with joints and temple hinge rolls
- Miller size: 3.5 mm

#### **Screw End Miller**

- For milling of screw ends (except steel screws)
- Shaft size: 2.5 mm

# 

#### Silicone Pad

- This non-slip softpad protects frame and worktop against scratches
- Perfect for your workshop and service area
- Made of silicone
- Thickness of the material: 1.5 mm

109 2361 2274 00

2 pieces





The tools No. 120 2710 (page C 36), 120 2709 and 120 2765 (page C 30) are for processing common German Silver screws and brass screws. Processing steel screws will immediately damage the tool. Improper usage voids all guarantees

#### **Small Tools Assortment**

- To use for frames
- Contents: 1 diamond miller, 1 diamond grinder, 1 groove miller,
  - 1 cutting wheel (10 pieces) including mandrel, 2 grinder,
  - 1 steel miller, 1 brass wire brush, 3 buffing wheels,
  - 4 silicone polishers, 1 trimming wheel
- In practical box
- Shaft size: 2.34 mm except No. 120 2731 = shaft size: 3.0 mm

120 2738 2240 57

1 68 x 58 x 66 mm













2240 42



2240 40



2240 49



2240 26

120 2724

2240 19

2264 00



120 2720

2240 07

2240 15



120 2727

2240 31



2240 32



2240 33

120 2730

2240 34





2240 29





2240 11



You will find our hand drilling machines on page A 32.

Shape	Application range	Size mm	Working speed rpm	Order No.
Grinder, wheel	To grind unhardened and alloyed steel	Ø 6 x 2.8	20,000-30,000	120 2720 2240 07
Grinder, cylindric	To grind unhardened and alloyed steel	2.5 x 6.5	20,000-30,000	120 2721 2240 11
Brass wire brush	To rework soldering joints	21 x 1.8	10,000	120 2722 2240 15
Silicone impregnated muslin wheel	To polish plastic materials	Ø 22	5,000	120 2723 2240 18
Wool buffing wheel	To polish plastic and ceramic	Ø 20	8,000	120 2724 2240 19
Flannel buffing wheel	To polish plastic and metal	Ø 20	5,000	120 2726 2240 29
Silicone burnisher, middle, pin	To work on metal, plastic and ceramic	4.5 x 12	7,000-10,000	120 2727 2240 31
Silicone burnisher, middle, wheel	To work on metal, plastic and ceramic	11 x 2	7,000-10,000	120 2728 2240 32
Silicone burnisher, fine, pin	For high gloss on metal alloy	5 x 10	7,000-10,000	120 2729 2240 33
Silicone burnisher, fine, wheel	For high gloss on metal alloy	14 x 2.5	7,000-10,000	120 2730 2240 34
Groove miller, facet	To rework frame grooves	17 x 2.8	2,000-4,000	120 2731 2240 37
Steel miller, bud shape	To work on metal, plastic and wood	Ø 6	8,000-12,000	121 1807 2240 40
Cutting wheel (10 pieces) inclusive mandrel	To cut metal and plastic	22 x 0.8	30,000	120 2733 2240 42
Diamond grinder, conical	For fine grinding and planing	Ø 1.6	30,000	120 2736 2240 49
Diamond miller	To groove rims of lenses	5 x 0.6	15,000-18,000	120 2745 2264 00
Trimming wheel, fine	For finishing metal, plastic and wood	Ø 25	10,000	120 2725 2240 26

#### Spiral Drill, HSS Special

- For drilling out steel screws, for drilling in Titanium as well as lens material such as CR 39 and transition lenses
- Designed for working on hard materials
- Extremely durable
- Working speed: **1,400 to 10,000 rpm**
- Field of application: Plastic materials, polycarbonate, steel, Titanium and precious metal
- Shaft size: 2.34 mm
- These drills are also available as assortment
   No. 120 2566 (please see below)

100%



Order No.	Size
<b>120 2554</b> 2038 05	0.5 mm
<b>120 2555</b> 2038 06	0.6 mm
120 2556 2038 07	0.7 mm
<b>120 2557</b> 2038 08	0.8 mm
<b>120 2558</b> 2038 09	0.9 mm
<b>120 2559</b> 2038 10	1.0 mm
<b>120 2560</b> 2038 11	1.1 mm
<b>120 2561</b> 2038 12	1.2 mm
<b>120 2562</b> 2038 13	1.3 mm
<b>120 2563</b> 2038 14	1.4 mm
<b>120 2564</b> 2038 15	1.5 mm
<b>120 2565</b> 2038 16	1.6 mm



#### **HSS Spiral Drill Set**

- 12 high quality spiral drills No. 120 2554–65
   Contents: 2 twist drills, each of sizes: 0.8, 1.0, 1.1, 1.2, 1.3 and 1.4 mm
- In a practical lid box set

#### 120 2566

2038 50





#### Spiral Drill, HSS

- With cylinder shaft, right cut
- Working speed: **500 to 3,000 rpm**
- Field of application: Plastic materials and precious metals

120 2515-29



Order No.	Shaft size	Size
<b>120 2515</b> 2032 05	0.5 mm	0.5 mm
<b>120 2516</b> 2032 06	0.6 mm	0.6 mm
<b>120 2517</b> 2032 07	0.7 mm	0.7 mm
<b>120 2518</b> 2032 08	0.8 mm	0.8 mm
<b>120 2519</b> 2032 09	0.9 mm	0.9 mm
<b>120 2520</b> 2032 10	1.0 mm	1.0 mm
<b>120 2521</b> 2032 11	1.1 mm	1.1 mm
<b>120 2522</b> 2032 12	1.2 mm	1.2 mm
<b>120 2523</b> 2032 13	1.3 mm	1.3 mm
<b>120 2524</b> 2032 14	1.4 mm	1.4 mm
<b>120 2525</b> 2032 15	1.5 mm	1.5 mm
<b>120 2526</b> 2032 16	1.6 mm	1.6 mm
<b>120 2527</b> 2032 17	1.7 mm	1.7 mm
<b>120 2528</b> 2032 18	1.8 mm	1.8 mm
<b>120 2529</b> 2032 20	2.0 mm	2.0 mm





#### HSS Spiral Drill Set, 30 pieces

- Contents: 3 spiral drills, each of sizes: 0.5; 0.6; 0.7; 0.8; 0.9; 1.0; 1.1; 1.2; 1.3 and 1.4 mm
- In a practical lid box set

#### 120 2530

2032 50

210 x 18 x 113 mm



#### **Hard Metal Drill**

- For drilling out steel screws stuck in hinges
- Working speed: **10,000 to 15,000 rpm**
- Field of application: Steel screws
- Shaft size: 2.34 mm

#### 120 2550-53

Order No.	Size
<b>120 2550</b> 2037 10	1.0 mm
<b>120 2551</b> 2037 12	1.2 mm
<b>120 2552</b> 2037 14	1.4 mm
<b>120 2553</b> 2037 16	1.6 mm





The drills No.  $120\ 255$  . are provided with a hard metal top. We recommend using less pressure and cooling.

#### **Drill Miller for NIDEK**

• For NIDEK CNC-machines ME and AHM

Material: Tungsten steel

• Shaft size: 3.16 mm

**120 2687–88** ① 10 pieces

Order No.	Size
120 2687 2209 08	0.8 mm
120 2688 2209 10	1.0 mm





#### **Groove Miller**

• To rework the groove of plastic and metal frames

Shaft size: 2.35 mmDiameter: 6 mm

• Speed: approx. 6,000 to 8,000 rpm

**120 2734** 2240 44



#### **Groove Miller**

 To rework the groove of plastic and metal frames

Shaft size: 2.35 mmDiameter: 8 mm

• Speed: approx. 6,000 to 8,000 rpm

120 2735 2240 45





#### Hard Metal Drill for Plastic Lenses

- Polished surfaces guarantees a clean cut
- Working speed: **1,000 to 5,000 rpm**
- Field of application: Plastic materials, polycarbonate and Trivex
- Shaft size: **3.175 mm**

Order No.	Size	Order No.	Size
120 2531 2035 08 120 2532 2035 09 120 2533 2035 10 120 2534 2035 11 120 2535 2035 12 120 2536 2035 13 120 2537 2035 14 120 2538 2035 15	0.8 mm 0.9 mm 1.0 mm 1.1 mm 1.2 mm 1.3 mm 1.4 mm	120 2539 2035 16 120 2540 2035 17 120 2541 2035 18 120 2542 2035 19 120 2543 2035 20 120 2544 2035 21 120 2545 2035 22	1.6 mm 1.7 mm 1.8 mm 1.9 mm 2.0 mm 2.1 mm 2.2 mm



#### Hard Metal Drill Set for Plastic Lenses

- Contents: 10 drills (0.8; 0.9; 1.0; 1.1; 1.2; 1.3; 1.4; 1.6; 1.8 and 2.0 mm)
- Details: see drills above
- Incl. half-transparent plastic box

120 2549 2035 60

**1** 86 x 10 x 53 mm





#### Hard Metal Miller for Plastic Lenses

- To notch and mill plastic lenses, polycarbonate and Trivex
- High quality double cut miller with fishtail edge for a clean cut and long life time
- Shaft size: 3.175 mm

**120 2700−07** → 38 mm

Order No.	Drillbit length	Miller size
<b>120 2700</b> 2212 08	8.0 mm	0.8 mm
<b>120 2701</b> 2212 09	9.0 mm	0.9 mm
<b>120 2702</b> 2212 10	9.0 mm	1.0 mm
<b>120 2703</b> 2212 11	9.0 mm	1.1 mm
<b>120 2704</b> 2212 12	9.0 mm	1.2 mm
<b>120 2705</b> 2212 13	9.0 mm	1.3 mm
<b>120 2706</b> 2212 14	9.0 mm	1.4 mm
<b>120 2707</b> 2212 16	10.0 mm	1.6 mm

# double cut



You will find our drilling machines starting page A 28.

#### **Drill and Miller Set for Plastic Lenses**

- Contents: 6 drills (0.8; 1.0; 1.2; 1.4; 1.6 and 2.0 mm) plus 4 millers (1.0; 1.2; 1.4 and 1.6 mm)
- Details: See for example article 120 2531 and 120 2700

120 2547

| 10 x 53 mm





#### **Drill Miller for Plastic Lenses**

- This drill-miller has a polished surface which enables a clean cut
- Ideally suitable for perfect drilling and milling of plastic lenses, including polycarbonate and Trivex
- Material: Tungsten steel
- Shaft size: 3.14 mm

Order No.	Drillbit length	Size
<b>120 2689</b> 2210 08	6.0 mm	0.8 mm
<b>120 2690</b> 2210 10	7.0 mm	1.0 mm
<b>120 2691</b> 2210 12	7.0 mm	1.2 mm
<b>120 2692</b> 2210 14	8.0 mm	1.4 mm
<b>120 2693</b> 2210 16	8.0 mm	1.6 mm



#### **Drill Miller Set for Plastic Lenses**

- Contents: 5 drill-miller (0.8; 1.0; 1.2; 1.4 and 1.6 mm)
- Details: see drill-miller above
- Incl. half-transparent plastic box



#### **Diamond Spiral Drill**

- For drilling glass and ceramic
- Working speed: approx. 20,000 rpm
- Shaft size: 2,34 mm

#### 120 2572-73

Order No.	Drillbit length	Size
120 2572 2044 10	7.0 mm	1.0 mm
120 2573 2044 12	9.0 mm	1.2 mm



#### **Diamond Drill**

- For drilling glass and ceramic
- Working speed: 15,000 to 18,000 rpm
- Drillbit length: 6.0 mm
- Shaft size: 2.34 mm



#### **Diamond Wheel**

- Shaft dimensions 22 x 0.60 mm
- Working speed: approx. 15,000 to 18,000 rpm
- Shaft size: 2.35 mm



#### **Diamond Miller**

- For milling of lenses
- Shaft dimensions: 5.0 x 0.6 mm
- Working speed: approx. 15,000 to 18,000 rpm
- Shaft size: 2.35 mm

120 2745 2264 00



120 2744

2263 00

Diamond drill No. 120 2742, 120 2743 plus diamond wheel No. 120 2744 and 120 2745 are high speed tools and should be operated with maximum speed. The optimum speed is between 15,000 and 18,000 rpm. Use **only water** as coolant. For minimum wear and tear and best performance apply low pressure only. Work in intervals and clean drill holes frequently. The **lower** the **rpm** of the diamond wheel/drill, the higher the wear and tear. The **faster** the **rpm** of the diamond wheel/drill, the better the working results.



#### **Duplex Hinge and Temple Miller**

• For working with joints and temples hinge rolls on Duplex temples

• Miller size: 3.0 mm • Shaft size: 3.0 mm

120 2710 → 35 mm 2217 03



#### **Double Cone Miller**

- To mill a notch for rhinestones
- For deburring drilling holes in plastic lenses
- Can also be used for polycarbonate and Trivex
- Shaft size: 2.34 mm

**120 2746−49** ←→ 44.5 mm

Order No.	Miller size
120 2746 2265 19	1.9 mm
120 2747 2265 23	2.3 mm
120 2748 2265 27	2.7 mm
120 2749 2265 40	4.0 mm



#### **Core Miller**

• For premilling of hidden hinge bowls

• Miller size: **5.0 mm** • Shaft size: 3.0 mm

120 2718 2237 50

→ 23 mm

#### **Screw End Miller**

• Suitable for **steel**, brass and German silver screws

• Outer diameter: 1.8 mm • Inner diameter: 1.4 mm • Shaft size: 2.34 mm

121 1806

→ 44 mm



200 %

100 %

#### **Hard Metal Miller**

To work on metal and plastic

• Shaft size: 3.0 mm Diameter: 6 x 48 mm

Speed: approx 4,000 to 6,000 rpm





#### **Hinge Bowl Miller**

- To mill out the hole for hinge
- 4 cuts
- Shaft size: 3.0 mm



ı	4
100 %	200 %

#### Long Hole Miller

- For milling long holes in plastic lenses
- Can also be used for polycarbonate and Trivex
- Shaft size: 2.35 mm

#### 120 2695-99

→ 44.5 mm 2 pieces

Order No.	Drillbit length	Miller size
<b>120 2695</b> 2211 08	3.5 mm	0.8 mm
<b>120 2696</b> 2211 10	4.0 mm	1.0 mm
<b>120 2697</b> 2211 12	4.2 mm	1.2 mm
<b>120 2698</b> 2211 14	4.5 mm	1.4 mm
120 2699 2211 21	5.1 mm	2.1 mm



Order No.	Miller size
<b>120 2713</b> 2236 30	3,0 mm
<b>120 2714</b> 2236 35	3,5 mm
<b>120 2715</b> 2236 40	4,0 mm
<b>120 2716</b> 2236 45	4,5 mm
<b>120 2717</b> 2236 50	5,0 mm

#### **Tool Holder**

- With plastic handle and revolving plastic knob, especially for taps
- Clamping: 1.5 to 2.0 mm





#### Reamer Holder

- Brass, nickel-plated
- Clamping: 1.0 to 2.0 mm



#### **Tool Holder**

- With 2 exchangeable, hardened steel clamps, with square head
- Clamping: 0.7 to 1.0 and 1.4 to 2.4 mm







2 exchangeable steel clamps

**Precision Tool Holder** 

- Black plastic handle with revolving knob
- Second clamp accomodated in handle
- Additional tools can be stored inside the handle
- Clamping: 0 to 1.5 and 1.5 to 2.5 mm



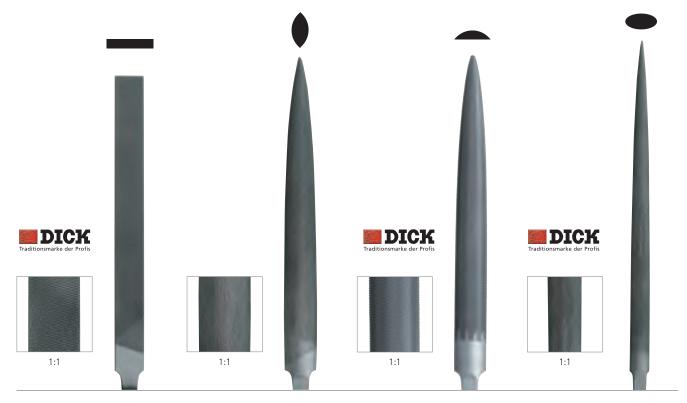


#### **Precision Tool Holder**

- With an extra large collet width
- For tools with a maximum shaft diameter of 3.2 mm
- Additional tools can be stored inside the handle
- Clamping: 2.5 to 3.2 mm







#### **Precision File** Flat, Large

- B&S special design
- With 2 different strokes: Cut 1= rough and cut 3 = semi fine
- Narrow side without stroke
- Length of cut: 120 mm
- Suitable handles: No. 120 2310 and 120 2312

#### **Precision File** Lenticular

- Flat oval type with shaft
- Tapered pointed tip
- Cut: 2

120 2396

1870 12

- Length of cut: 125 mm
- Suitable handles: No. 120 2310 and 120 2312

#### **Precision File** Half-round

- With shaft and pointed tip
- Length of cut: 125 mm
- Suitable handles: No. 120 2310 and 120 2312

#### **Precision File Oval**

- Evenly vaulted
- With rounded edges
- For plastic material
- Cut: 3
- Length of cut: 150 mm
- Suitable handles: No. 120 2310 and 120 2312

130 1411 1865 00

170 x 12 mm

+ 3.2 mm



175 x 15 mm

**9** 38 g

120 2397 Cut: 1 1878 01 120 2398 Cut: 2 1878 02

175 x 13 mm

**9** 38 g

120 2399 1882 13

1 205 x 9 mm

**9** 33 g

#### Swiss-made and exclusive to B&S.

At a quick glance the special quality of the 2 in 1 equalling file with its two different strokes cannot immediately be seen. A comparable quality is nowhere to be found.

# DICK



#### **Precision File** Flat, Small, including Handle

- B&S special design
- With 2 different strokes: Cut 1 = rough and cut 3 = semi fine
- One third of one narrow side with stroke
- Delivered with plastic handle
- Length of cut: 100 mm





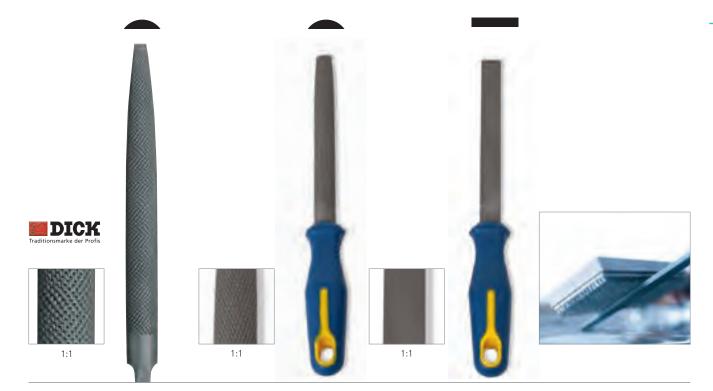
For cleaning we recommend our cleaning brush for files No. 120 4072 on page C 39 and E 32.

120 2395 1868 00





32 g + 2.8 mm



#### Raspel Half-round

- For working plastics
- With specially fine rasp cut No. 5
- Length of cut: 150 mm
- Suitable handles: No. 120 2310 and 120 2312

#### Raspel Half-round

- For working plastics
- With rasp cut No. 5
- Length of cut: 135 mm
- Delivered with plastic handle

#### Precision File Flat, Large

- With two different strokes:
   Cut 1 = rough and cut 3 = semi fine
- One third of the one narrow side with stroke
- Length of cut: 120 mm
- Delivered with plastic handle

#### Filing Brush

- Flat
- Coated surface: 105 mm

**120 2400** 1899 00

130 0688

1898 00

1 260 x 15 mm

•**●** 118 g

130 0684 1866 00

|----| 240 x 15 mm

•**→** 79 g

**120 4072** 3516 00

1 250 x 35 mm

#### **File Handles**

- Lacquered wood
- Standard type, with collar
- Bore: 4 mm

#### File Handle, Plastic Red

- Reduces fatigue and avoids blisters
- Shaped to fit the hand, special design
- For file lengths from 100 up to 150 mm
- Material: High impact material with non-slip surface
- Bore: 4-7 mm, no opening up required

#### File Handle, Plastic Blue

- Ergonomic file handle with soft touch surface
- Material: Two-component plastic
- Bore: 3.7 mm



**120 2311** 1732 90

120 2310

1732 10

---- 90 mm

.

→ 100 mm

**9** 35 g

**9** 30 g





120 2313 1735 80

→ 85 mm

•**→•** 24 g

#### **Needle File Assortment**

- For work on plastic
- In plastic pouch, different shapes (flat, semicircular, trident, square type, round, flat with tapered tip)
- Cut: 2
- Length of cut: 70 mm

120 2382 1849 60

→ 140 mm

6 pieces



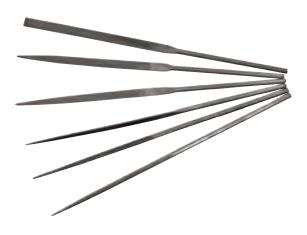
#### **Needle File Assortment**

- Notably small and handy version with extra fine cut for work with plastic
- In plastic pouch, different shapes (flat, semicircular, trident, square type, round, flat with tapered tip)
- Cut: 4
- Length of cut: 50 mm

120 2380 1848 50

→ 100 mm

6 pieces



#### **Needle File Assortment**

- For work on plastic
- In plastic pouch, different shapes (flat, semicircular, trident, square type, round, flat with tapered tip, lenticular, knife-shaped)
- Assorted in cuts 1 and 3

120 2381 1849 00

→ 140 mm

12 pieces



#### **Diamond Needle File Assortment**

- For work on steel, lenses, ceramic
- In plastic pouch, different shapes (flat, trident, square type, round, flat with tapered tip, oval, biretta, lenticular, semicircular, knife-shaped)
- Length of cut: 50 mm

**120 2360** |---| 140 mm 1801 50

10 pieces



#### **Needle Files**

• Cut: 2



#### **Screw Head Slot File**

- Without shaft
- Cut: 5
- Length of cut: 75 mm
- Thickness at edge: 0.30 mm

#### **Lens Drill Hole** and Hinge Files

- Round, cylindricalCut: 3
- Length of cut: 100 mm





→ 120 mm

1 g







109 6652 1860 15

#### Pretty flexible.

No DIY store has this bench vice in its range. A bench vice with precise ball joint construction. Work pieces can be rotated and tilted exactly as required. The exchangeable jaws offer a secure and gentle grip. This German quality product is manufactured in small production runs -defining a typical B&S product.



#### **Ball Joint Vice**

- With lateral turning range and rotation 360°
- Perfect for all demands and requirements at work
- Jaw type: Smooth and exchangeable
- Clamping depth: 38 mm
- Jaw width: 50 mm
- Clamping range: 48 mm
- Maximum thickness of working table: 80 mm

120 2609



#### Plastic Jaws (without illustration)

Suitable for No. 120 2609

120 2612 1 pair

#### **Vice**

- Rotatable vice with steel jaws and trapezoidal threaded spindle
- Made of grey cast iron with table clamping clamp
- Jaw width: 50 mm
- Clamping range: 50 mm
- Clamping depth: 32 mm
- Maximum thickness of working table: 50 mm





#### Self-Adhesive Felt for Vise Jaws

- Can be cut to size, self-adhesive
- For vices to protect sensitive materials

120 2617 2121 20



1 m





#### **Ball Joint Vice**

- Adjustable in all kind of work positions
- With rubber jaws
- Jaw width: 73 mm
- Clamping range: **50 mm**
- Maximum thickness of working table: 55 mm

120 2608 2105 30





#### **Aluminium Jaws**

• For easy attachment, suitable for all vices

120 2616 2121 15

65 x 10 x 14 mm



#### Filing Vice

• For filing of temple stops with its clamp



#### **Hack Saw**

- Universal use (for metal and plastic)
- The handle is used to keep the blade under tension
- Perfect to use for special fretworks
- C shaped frame, including standard blade
- Bow depth: 65 mm



#### Standard Blades for Hack Saw



#### Fret Saw Working Set

- For wood and plastic
- Contents: 1 fret saw, 1 fret saw timber with clamp,
   1 set saw blades







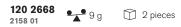
#### Fret Saw Timber (without illustration)

• With two clamps and metal sleeve



#### Spare Screw Set (without illustration)

- Complete with washer and wing nut
- 1 set contains: 2 fly nuts, 2 washers and 2 screws



#### Spare Clamps (without illustration)

#### Fret Saw Blades

- For plastic, acrylic glass and non-ferrous metal
- One sided cut
- Length: 130 mm



#### **Fret Saw Blades**

- For plastic
- All-over cut
- Length: 130 mm

<b>120 2683–86</b>	
120 2683 Ø 0.8 mm 120 2685 Ø 1.0 m 120 2684 Ø 0.9 mm 120 2686 Ø 1.2 m	

#### **Fret Saw Blades**

- For metal
- One sided cut
- Length: 130 mm

