

# INTRODUCING...



## **WILSON TOOL** **FLYERS**

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#### **PRESS BRAKE TOOLING**

Breakthrough Bending Technology (3 pages)  
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#### **MAILSHOTS**

Punching and bending sheet metal

Wilson Tool International Ltd. Stirling Road, South Marston Industrial Estate, Swindon, Wiltshire SN3 4TQ

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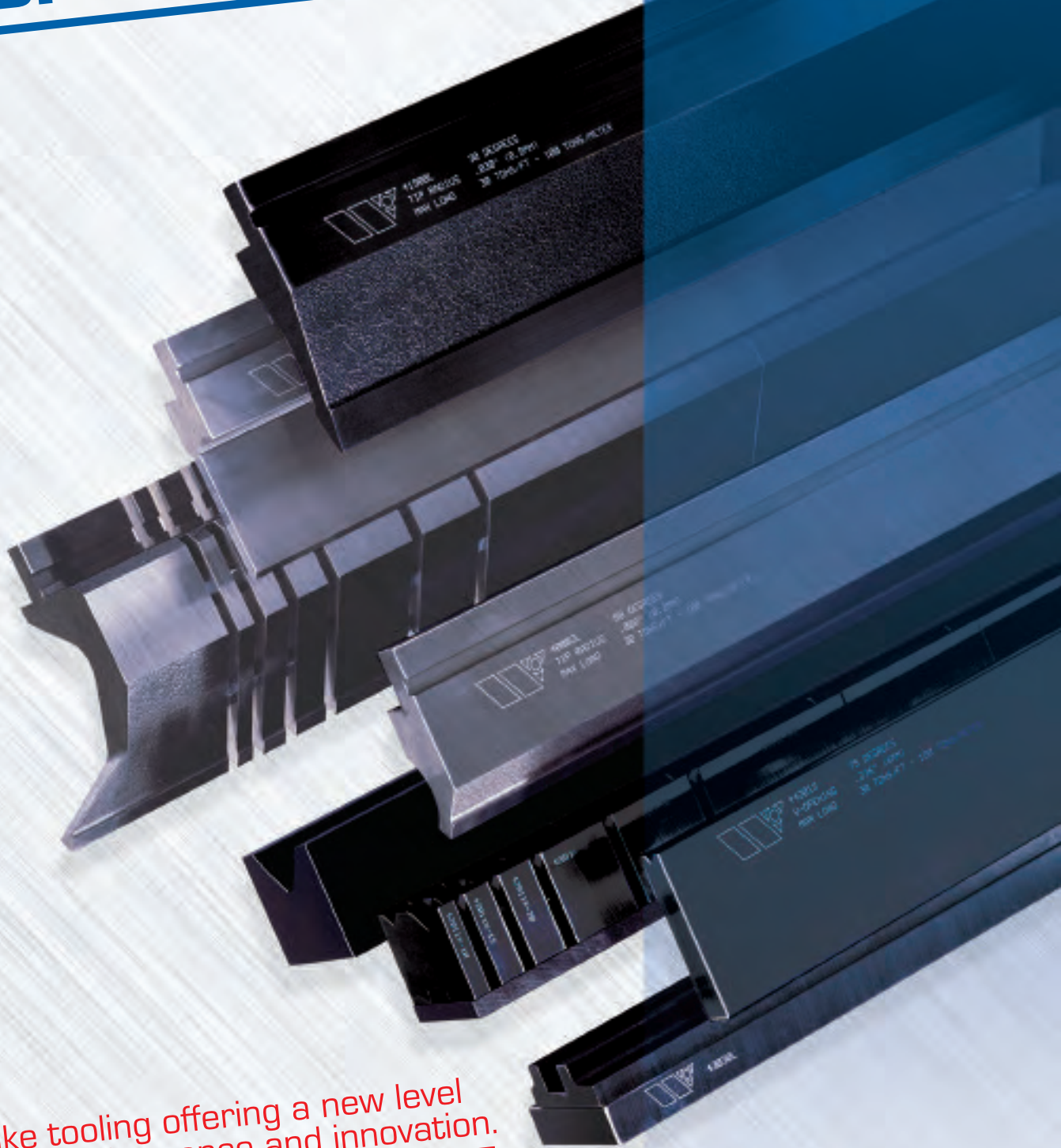
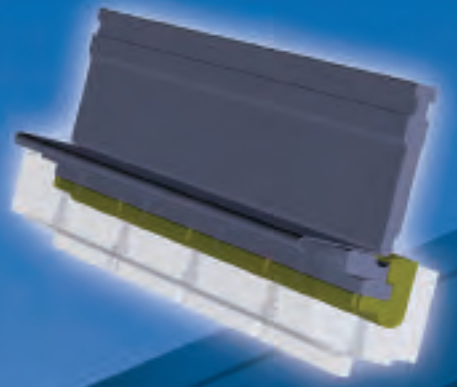
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IMPROVE YOUR PERFORMANCE WITH...

# BREAKTHROUGH BENDING TECHNOLOGY



Press brake tooling offering a new level of precision, performance and innovation.



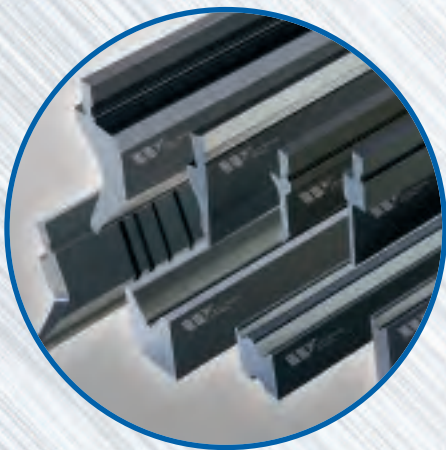
IMPROVE YOUR PERFORMANCE WITH...

# **BREAKTHROUGH BENDING TECHNOLOGY**

**Press brake tooling offering a new level of  
precision, performance and innovation.**

Wilson Tool leads the industry with precision, performance and innovation. Whether you require a special tool, a standard tool, a modified standard, or a clamping system you will find that we manufacture state-of-the-art precision ground tooling and groundbreaking clamping systems that enable our customers to be the best fabricators in the world.

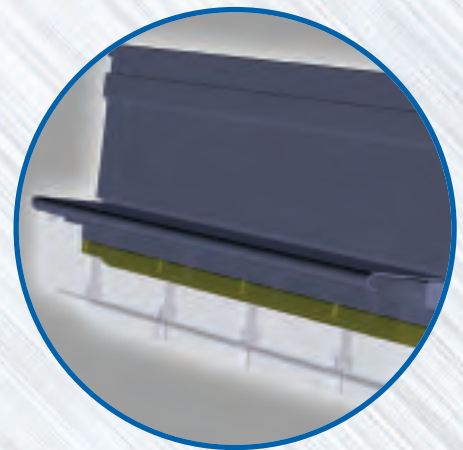
We were the first manufacturer to offer staged bending for ultimate versatility and efficiency. Our advanced Express clamping system is the most reliable in the industry and our exclusive Nitrex™ surface enhancement dramatically increases tool life. With each new technology we introduce, Wilson Tool continually raises the bar for reliability, performance and increased productivity.



European Style



Staged Precision



Special

OUR CUTTING EDGE BENDING TECHNOLOGY...

## **DRAMATICALLY INCREASES PRESS BRAKE PRODUCTIVITY**

Wilson special tooling incorporates ingenuity and state-of-the-art manufacturing enabling our customers to produce more parts per hour, have fewer set-ups, and achieve a higher level of quality. Unlike any other tooling, Wilson Staged innovative consistent closed height makes stage bending possible. Staged bending, quick tool changes, and unmatched durability combine to make this range the single most innovative press brake tooling on the market.



**THE WILSON ADVANTAGE**



You can even maximise Wilson staged press brake tooling further as Wilson Engineers have created the revolutionary PowerExpress™ hydraulic clamping system. This unique hydraulic system makes tool changes faster than ever before by enabling operators to clamp and seat virtually any Wilson Staged tool in a single operation. One touch pendant control activates the hydraulic clamping action, which automatically clamps and seats tools in a matter of seconds.



PowerExpress™

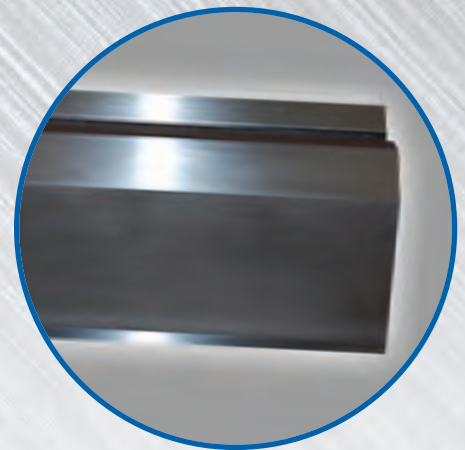
Longer tool life, less scrap and quick set-ups are what makes the Wilson Tool European style press brake tooling the first choice for customers using Amada style press brakes. When used with the Wilson Express Clamping System™ most European style tooling can be changed in a matter of seconds, saving you time and money. We also offer a large selection of Quick Change 2V and 1V dies. With our range of WT style tooling Wilson Tool can offer solutions to most press brake machines

There is another feature of Wilson Tool press brake tooling that saves time and money, this is the accuracy that the tooling is machined to, all critical dimensions are machined to  $\pm 0.02$ . This enables much quicker set-up times, more reliability, and more accurate results, thus enabling you to offer much more accurate parts to your customer. The features offered in press brake tooling from Wilson tool are more important than on the punching tools, this is due to the fact that when a sheet is being bent there has already been punching time incorporated so any scrap is a higher cost due to sheet cost plus process time up to bending.

Our exclusive Nitrex high endurance surface enhancement is standard on a large part of our press brake components, increasing tooling life by several times that of ordinary tooling. Wilson's patented process provides a surface hardness of HRC-60 to HRC-65, increasing long term durability and minimising gauling in even the toughest bending situations.



Z2 Clamp



Euro Tool

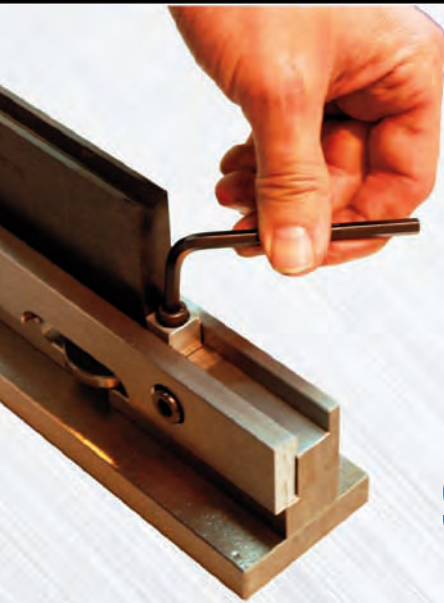
BOOST YOUR BENDING PERFORMANCE WITH...  
**WILSON TOOL**

Unmatched durability, unparalleled customer service and an unwavering commitment to innovation make Wilson Tool the clear choice to increase your uptime and reduce your costs.



THE WILSON ADVANTAGE





# ENSURE YOUR SET-UP REMAINS STABLE...

After setting up dies on your Press Brake they can move sideways with use. If you have multiple set-ups on the same machine this can be a major problem. If the die moves, you can foul with the adjacent tooling as the part is bending. Die movement is gradual, and can sometimes be hard to see until parts are scrapped. The cost and lead time implications of this are clear.

The die moving can also cause another problem. If you have gauging that is not connected to the die, the distance between the gauge and the die will change over time.



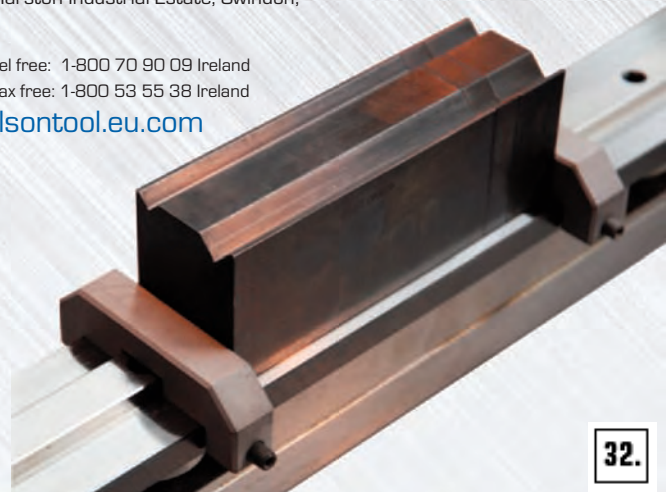
The best solution to these problems is a 2V or 1V die rail clamp from Wilson Tool. With dies clamped firmly, problems with part quality or parts fouling caused by die movement are eliminated.

For advice and further information on any products contact Wilson Tool direct on:  
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# SAVE TIME AND MONEY WITH THE WILSON EXPRESS CLAMPING SYSTEM.™

Available for virtually any make and model of press brake, the Wilson Express Clamping System is uniquely designed to increase your productivity and reduce your operating costs.

- **Load Punches in a Snap.**

Loading punches has never been easier. The Wilson Express Clamping system completely eliminates the need to slide punches in from the end of the machine. Simply place (415mm) long punches or individual pieces of sectionalized punches under the clamps and push them upward. The spring-loaded clamps capture the punch via the safety groove and hold it in place until the clamps are locked. To lock the clamps, simply push the removable lever upward.

- **Unload Punches Quickly and Easily.**

Again, Wilson has eliminated the need to slide punches to the end of the machine. Simply pull down the locking lever to unlock the clamp, or to remove smaller punch sections, pushing inward on the tops of the clamps opens the clamps and allows the operator to pull individual sections straight down. Clamps that are not in use can easily be removed from the punch holders by hand.

- **No Special Tooling Required.**

Wilson Express Clamping Systems can be used with any standard European style press brake tooling with a safety groove. You can use the same high quality Wilson tooling you currently own, without having to re-purchase the system for every tool you order.

- **Fewer Maintenance Costs.**

Because the Wilson Express Clamping System is mechanical rather than hydraulic, maintenance costs are virtually eliminated. And with no hydraulics there's no risk of power failures causing clamps to release unexpectedly.

- **Dual Clamping Available.**

A dual clamping feature is available on all Wilson Express Clamping Systems for an additional cost. This added feature allows you to load punches with the safety groove facing forward or to the rear of the machine. Both front and rear clamps are opened and closed simultaneously when the locking lever is actuated.



Z1 Style Press Brakes



Z2 Style Press Brakes





# WHY BUY SPECIAL TOOLS TO ACHIEVE DIFFERENT DIE HEIGHTS?

## USE THE WILSON QUICK CHANGE 1V DIE HOLDERS



There are times when you need different die heights to achieve the bends you require in your product. Each time a different height is required, special tools are purchased. When the job is completed, the tool is discarded. Over time, unused tools from completed jobs build up in your factory.

To prevent this problem, Wilson Tool offer European die holders in two different heights. With both holders available, you will be able to deal with the majority of die heights without purchasing special tools. Wilson Tool offer two styles of die rail; clamped and unclamped. It will depend on what type of dies you are using as to which you go for.

### Unclamped rails:

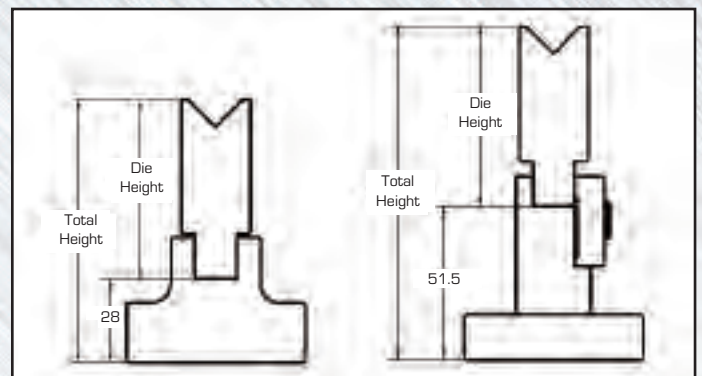
The benefit of unclamped rails is that the tool changeover time is quicker as the dies sit into a tight-tolerance die rail which holds the die in position. However, there is a problem with unclamped dies in that they can move sideways along the machine as parts are produced. Sectionalised tools are much more susceptible to this problem.

### Clamped die rails:

Clamped die rails prevent the problem of dies moving sideways during production. This is particularly important if you use a lot of sectionalised tooling. Clamped die rails can also be used unclamped, so this is a much more flexible option as the operator can choose which is best for individual set-ups.

The table below shows the different heights that can be achieved with the Wilson die holders.

Standard die height	Total height with 28 mm die holder	Total height with 51.5 mm die holder
30 mm	58 mm	81.5 mm
60 mm	88 mm	111.5 mm
83.5 mm	111.5 mm	135 mm



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# THE FASTEST SET-UP WITH THE....



## QUICK CHANGE 1V DIE SYSTEM

### BENEFITS OF THE WILSON TOOL QC 1V DIE SYSTEM:

#### Consistently accurate die set-ups.

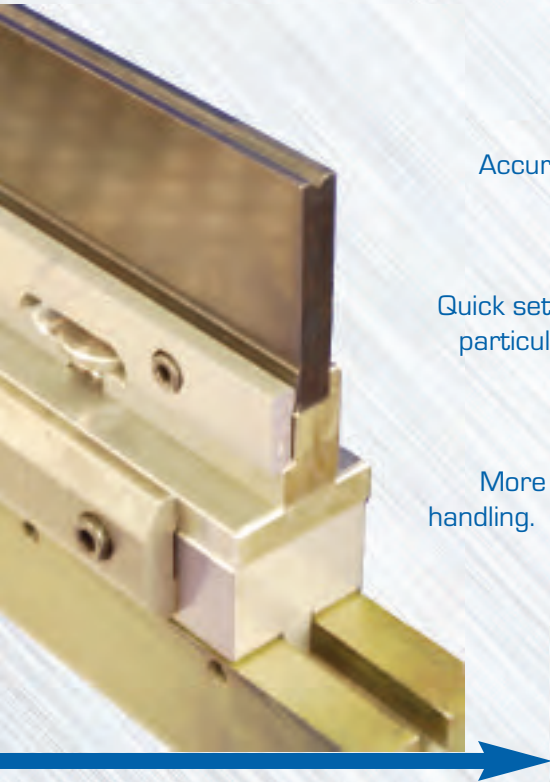
Accuracy is easily maintained with every die that is located in the die holder. More parts right first time reduces your costs and increases your profit.

#### Significantly reduced set-up times

Quick set-ups reduce your costs and allow you to manufacture more parts per hour. This is particularly important in a "lean manufacturing" environment with shorter production runs and more frequent set-ups.

#### Lighter dies mean less risk of operator injury

More than a third of all over-three-day injuries reported each year are caused by manual handling. Quick change 1V dies are effectively split into two parts (holder and die) to reduce weight and minimise the risk to the operator.



#### It is easier to use the same die on multiple machines

After setting-up the die holders on each press brake, dies can be easily interchanged without re-setting the machines.

#### Dies are made from P20 steel for longer tool life

Wilson has selected P20 as the most suitable steel for the demands of press brake tooling; it is tough enough not to move as other steels can. Steel and heat treat are areas where Wilson Tool will not compromise; only the best is good enough!

#### Nitrex enhanced dies increase tool life and reduce galling

Nitrex surface enhancement ensures dies have a hardness of 65HRC to 0.5mm deep. Nitrex lowers friction, reduces galling and significantly increases tool life. After using Nitrex you will be surprised at how much cheap dies actually cost you!

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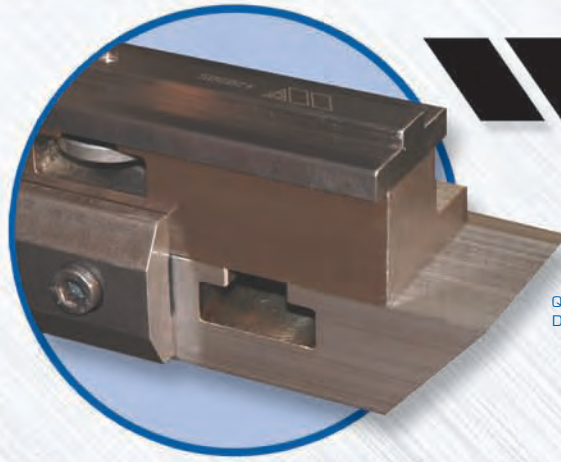
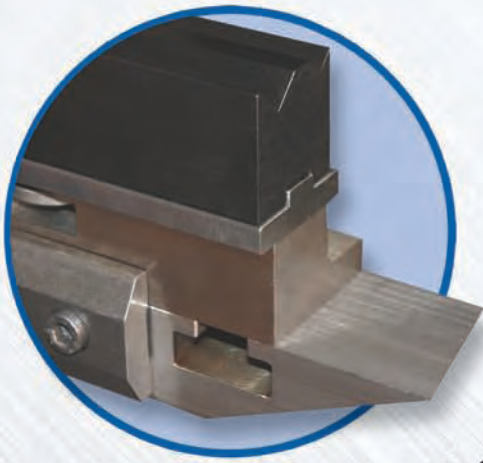
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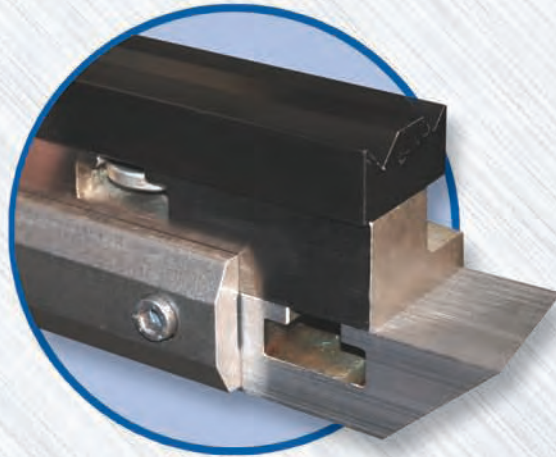


QUICK CHANGE 2V DIE  
"ONLY ONE SET-UP REQUIRED"



QUICK CHANGE  
DIE RAIL

# THE FASTEST SET-UP WITH THE . . . **QUICK CHANGE 2V DIES**



OLD STYLE 2V DIE



OLD STYLE 2V DIE  
"REQUIRES SET-UP EVERYTIME AND  
A HIGHER POSSIBILITY OF ERROR"

## LEAN MANUFACTURING WITH THE QUICK CHANGE 2V DIES

Successful sheet metal companies will all have something in common... They all continually look for ways to cut costs and maximise profits.

To achieve this Wilson Tool supplies a quick change 2V die system, with the key ingredient of accuracy and long life. The successful quick change is due to the die rail in the 2V Die system, this rail is consistently having dies slid along it and if it is made from the wrong material, or the heat treatment is not correct then errors will build up in the system. At Wilson Tool, along with top quality dies, the die rail will resist this wear better than any other.

The past system where the die has to be shimmed back to front then set-up correctly each time meant vital production time and your competitive advantage lost, Wilson Tool have illuminated this with the 2V Dies.

With the Wilson Tool quick change die system once it is set the die is in the right place every time. Why be good when you can be the best with the Wilson Tool Quick Change 2V Dies.

Lean Manufacturing is becoming increasingly important to businesses operating in today's harsh economic environment. The technologies of Lean Manufacturing allow companies to eliminate waste and improve quality; reducing costs and improving value to the customer. In a competitive environment in which several companies manufacture similar products, only the most efficient organisations, those adopting Lean Manufacturing, will succeed at the expense of their competition.

The Quick Change 2V Dies is a great example of Wilson Tool's commitment to Lean Manufacturing, reducing the waste in sheet metal organisations. The tool reduces set up times considerably when compared with the conventional methods because once it is set it is in the right place every time. With accuracy and long life the tools span of life will be much longer than normal 2V Dies.

See how our tools can help your organisation with Lean Manufacturing, please contact the Wilson Tool sales desk or your local Wilson Tool sales engineer.

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**WILSON TOOL  
INTRODUCES...**

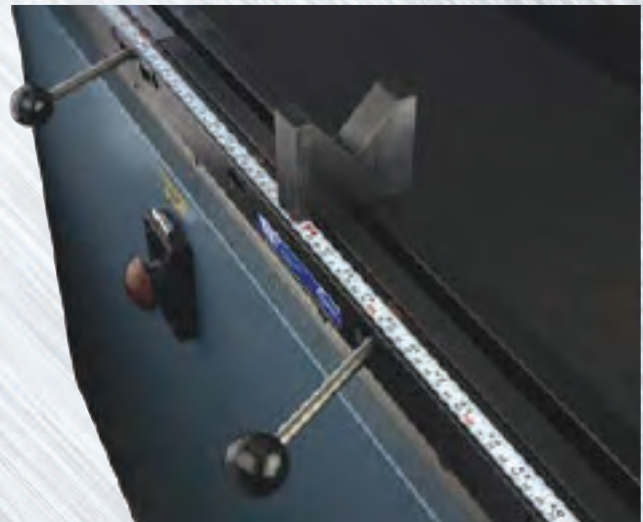
# **QUICK CHANGE DIE CLAMPING**

## **WILSON EXPRESS CLAMP® DIE HOLDERS**

Wilson Tool now offers press brake fabricators a way to dramatically speed setups. The Wilson Express Clamp die holder eliminates the need for set screws and allow users to change dies in moments.

### **One Step Mechanical Die Clamping**

The Wilson Express Clamp die holder is a mechanical quick lock system for locking any Wila or Trumpf style dies. Once the die is loaded the operator simply locks the dies with the pull of a lever, to unload just move the lever back and lift the dies out. With the Wilson Express Clamp Die holder you can change dies quickly and also have the security of clamped dies. The die holders come in a module style that can be linked together to suit a Press Brake of any length.



Wilson Express Clamp Die holder

### **Nitrex® Surface Enhancement Increases Clamp Life.**

The Wilson Express Clamp die holder is treated with Wilson Tool's exclusive Nitrex high endurance surface enhancement. Wilson's patented process provides a surface hardness of HRC-70, increasing long-term durability and minimizing galling. In even the toughest bending situations, Nitrex will extend the life of your die clamps by several times that of untreated beams.

## **Maximize Your Press Brake Productivity with Die Clamps from Wilson Tool.**

For advice and further information on any products contact Wilson Tool direct on:  
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[pbsales@wilsontool.eu.com](mailto:pbsales@wilsontool.eu.com)

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REDUCE SETUP TIME WITH...

# STAGED BENDING

As smaller press brake runs become more routine, valuable production time is often lost on performing multiple setup per part. Press brake fabricators can significantly improve productivity by minimizing setup time with staged bending solutions from Wilson Tool. Our progressive approach to press brake tooling can improve workflow and help make even complex short runs more cost-effective.

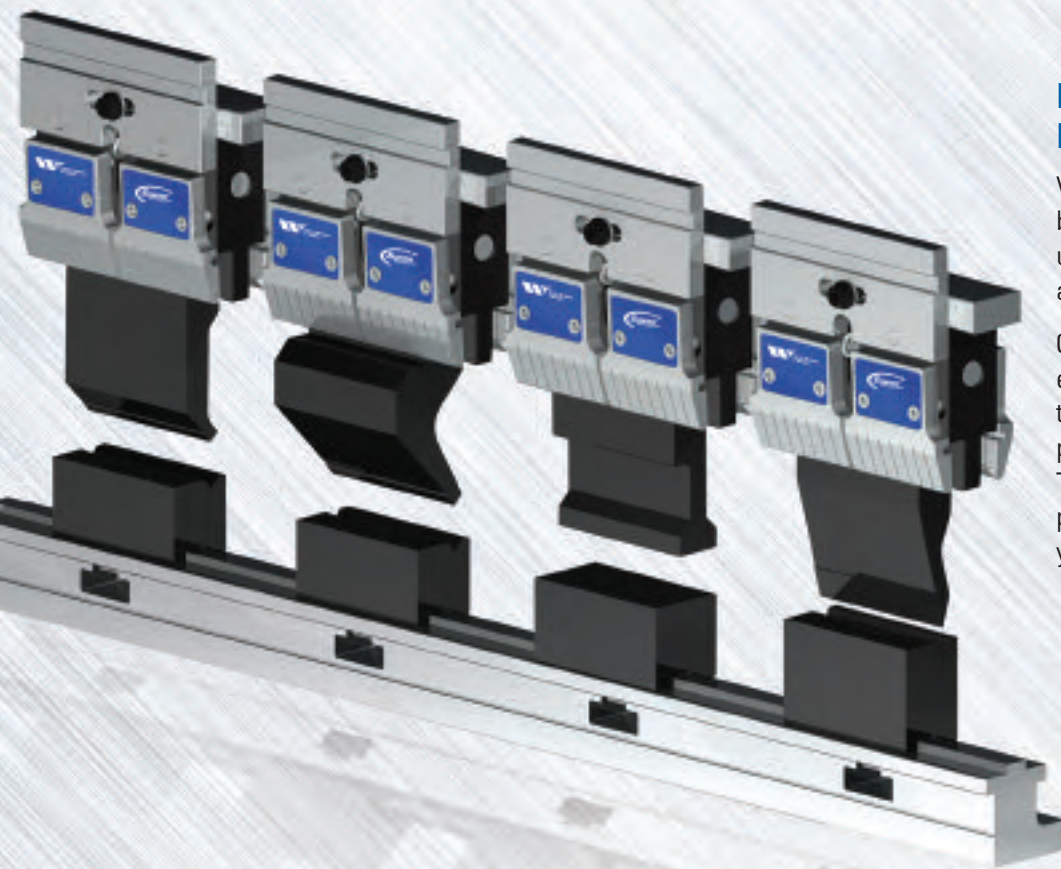


## One Setup. Multiple Operations

Staged bending enables press brake operators to carry out multiple bends with a single setup. With staged bending groups of tooling are set up progressively along the press brake then all bends on a single part are performed in succession. Staged bending simplifies complex short-run jobs by eliminating unproductive repetitive tasks – significantly reducing setup time, part handling and work-in-progress.

## Standard Common Shut Height.

Wilson Tool were the first tooling manufacturer to offer staged bending. To accomplish staged tooling, each tool in a set must share a common shut height, meaning the total height of each punch and die combined is the same. Our Wilson Staged press brake tooling offers a common shut height as a standard feature, making staged bending



## Maximize Your Press Brake Productivity.

Wilson Tool's innovative staged bending solutions offer the ultimate in versatility and efficiency.

Call 0800 012 1475 or email [pb.sales@wilsontool.eu.com](mailto:pb.sales@wilsontool.eu.com) today and discover more ways press brake tooling from Wilson Tool can increase your productivity and reduce your costs.

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# REDUCE SHEET MARKING

## WITH WILSON TOOL...

Sheet Marking is a much larger issue for today's Sheet Metal Worker. It is now not only materials such as stainless steel and polished aluminium that needs to be mark free; companies are looking for a much better surface finish on all types of material. In addition to improved part quality, reduced sheet marking can also prevent the need for expensive secondary finishing operations.

**A number of factors affect sheet marking, including material type and thickness and how your tooling is stored and maintained. Wilson Tool Press Brake can help with a number of solutions:**



### Tool care:

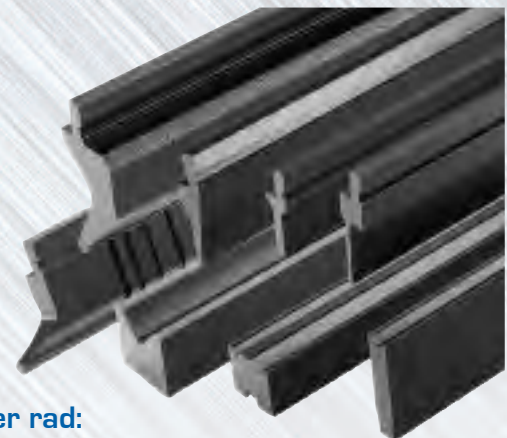
The two areas on a tool that affect sheet marking are:

1. The faces of the tool that interface with the machine. If these are damaged the tool will not seat correctly and one end of the punch or die will not be in the same plane as the other, thus marking the sheet.
2. The part of the tool in contact with the material. If there is any damage here it will be transferred directly to the surface of the material, particularly if the die shoulder radii are damaged.

A cost effective solution to this is to have the tooling stored in cabinets with a rust prevention such as oil. This will ensure your investment is well protected.

### Nitrex:

Nitrex is very good at reducing the amount of material pick up due to its hardness and reduced friction. This will in turn give a lower level of marking to material being bent. These dies are also much easier to keep clean than a standard steel die, and the Nitrex acts as a rust preventative again protecting your investment.



### Increased shoulder rad:

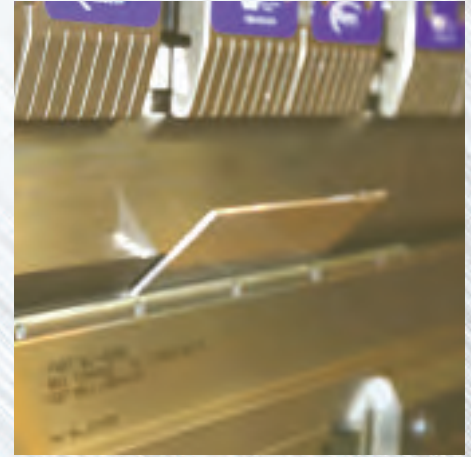
Increasing the shoulder radius can be used to reduce the depth of marks in a sheet. However, the distance the material drags is increased, resulting in a larger marked area. Therefore, increased shoulder radius = shallower but larger marked area.





**V-Series tooling:**

This is a range of tooling that has two inserts in the die which rotate with the sheet as it is bent. This avoids the material dragging over the shoulder radius which is a large contributor to sheet marking. This is also a good solution when it comes to large radius bending, particularly as over bending can be achieved to compensate for spring back.



**Urethane & Polycarbonate dies:**

A urethane die does not have a V opening; the material is forced into the urethane which forces the material around the punch. This eliminates the dragging of the material over the shoulder radius, thus reducing marking. Tonnage needs to be checked for this option.

A Polycarbonate die does have a V opening and we would recommend 10 x material thickness for this. The material still drags over the shoulder radius, but as the die is Polycarbonate there is no marking. Again tonnage must be checked with this option.

**Urethane roll:**

These are rolls of urethane 30Mtrs long, 152mm wide and either 0.4 or 0.8mm thick. The urethane is laid or fastened to the top of the die and then the material is placed on top of the urethane for bending. As the material bends it will drag over the shoulder radius, but with the urethane between your part and the die, marking will be reduced considerably.



**Lubrication:**

Sheet lubricant is a good solution to reducing component marking. Wilson X-Cel sheet lubricant can be sprayed or rolled onto the bottom of your sheet material, reducing the friction caused by dragging the material over the shoulder radius during bending operations. Wilson X-Cel is also water based, eliminating the lubricant removal problems associated with oils.



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# INTRODUCING THE... **SQUARING ARM**

THE MAGNETIC SQUARING ARM FROM WILSON TOOL PRESS BRAKE IS A FLEXIBLE TOOL ENABLING YOU TO GET MORE PARTS THROUGH YOUR PRESS BRAKE WITH HIGHER ACCURACY.

## Available for RH or LH loading of parts

With one squaring arm for left handed loading and one for right handed loading, the Wilson Squaring Arm allows left or right handed operators to load parts more quickly and accurately.



## Simple and quick to fit

There are no screws to be tightened or keys to be found; the arm simply attaches to the die with the use of magnets. The Wilson Squaring Arm is suitable for use with both 1V and 2V dies so it is very flexible.



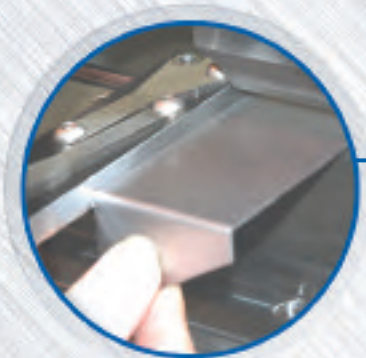
## Can be used for bending parts at an angle

Not all part edges are at 0° or 90°; some are at odd angles. This is not a problem for the Wilson Squaring Arm; angles can be set to match the part, ensuring that the bend is consistently in the right place.



## Makes bending small parts much easier and safer

Press brake operator safety is built in. Conventional practice for bending small parts can require the operator's hands to be very close to the punch and die. With the Wilson Squaring Arm, parts can be located in the correct position against the arm, allowing the operator to bend small parts in complete safety.



## Can be used as end stop for Z bends

When there is a Z-bend with in the part, it will not lie flat after the first bend as there is a downwards facing return. By positioning the angle bar on the opposite side of the slide arm, these Z-bends can be squared accurately.

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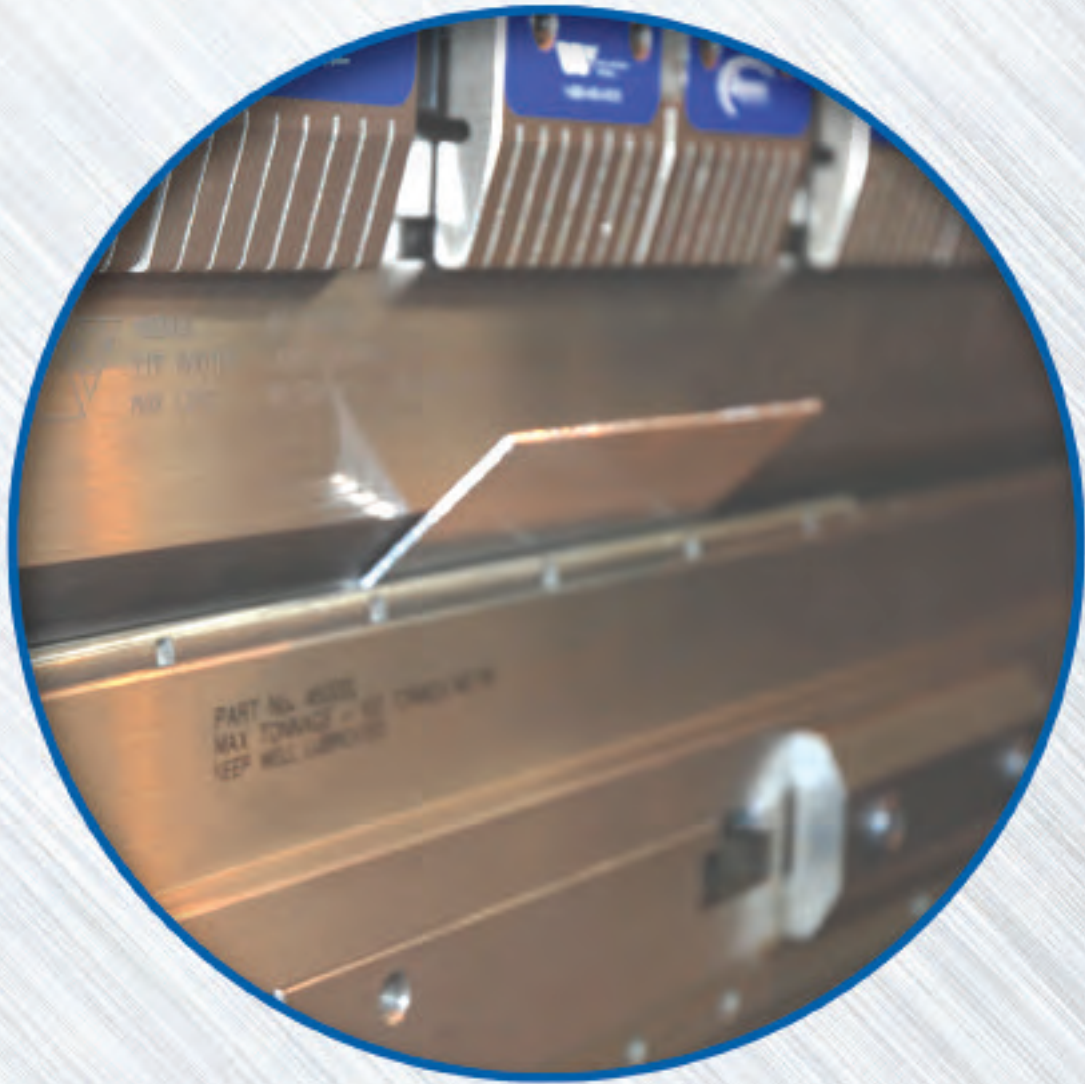
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INTRODUCING ...  
**V-SERIES**



- REDUCES SHEET MARKING
- SMALL FLANGES AND SMALL BEND RADII POSSIBLE
- REDUCED FRICTION
- FLEXIBILITY
- CAN BEND CLOSE TO HOLES
- LARGE RAD BENDING



## SPECIFICATION

Type	Model 1	Model 2	Model 3	
Max. material thickness (mm)	1.5 (1.2)	3.0 (2.5)	6.0 (5.0)	
Max. outside radius (mm)	5.0	10.0	25.0	
Min. Bend Angle*	30°	65°	75°	
Equivalent 'V' size (mm)	8.0	15.0	38.0	
Allowable Tonnage (Ton/M)	100	150	350	
Min. Flange**	Material		Outside dimension (mm)	
	Thickness (mm)	Model 1	Model 2	Model 3
	1.0	4.7	-	-
	1.6	5.4	8.7	-
	2.0	5.6	9.8	-
	3.0	-	10.2	24.3
	4.0	-	-	25.5
6.0	-	-	26.5	
Tool Length (mm)	Amada / Euro Style	417.5 & 835		
	Wila / Trumpf / LVD Style	500 & 1000		

\* Min bend angle may vary depending upon punch tip radius and material thickness.

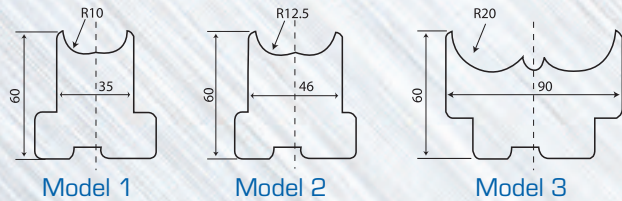
Smaller angles are possible subject to condition (please contact our Sales Desk).

\*\* These dimensions apply to bending Mild Steel and Aluminium. With Stainless Steel these dimensions may increase slightly.

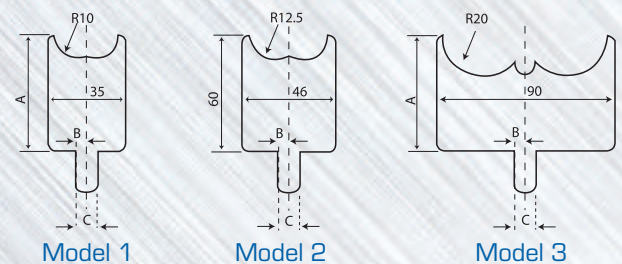
Material thickness in brackets [1.2] indicates stainless steel.

## TOOL PROFILE

### Amada/Euro Style



Wila / Trumpf / LVD Style	A (mm)	B (mm)	C (mm)
13mm Centre Tang	55	6.5	13
13mm Centre Tang	100	6.5	13
offset Tang LVD Style	90	7.0	12

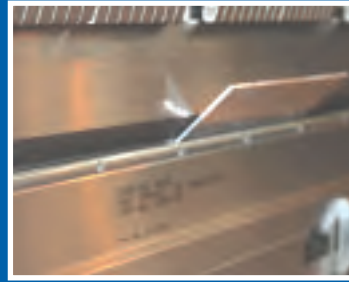


## THE BENEFITS ARE EASY TO SEE



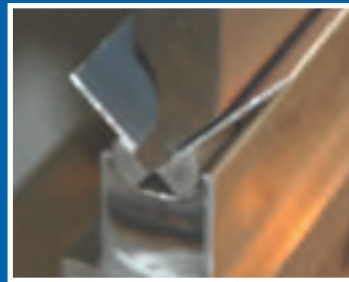
### Reduces sheet marking

Because there is no movement between the sheet and the die blades, there is a reduction in sheet marking. This gives an improved quality finish without secondary operations.



### Flexibility

With the V-Series die you can bend a range of materials with the same die so the set-up time is reduced and you no longer need to maintain such a large inventory.



### Reduced friction

One of the biggest problems when bending sheet metal is the friction between the die and the sheet. With the V-Series the blades rotate with the sheet so there is no lateral movement between the sheet and the die. Just keep the blades lubricated and you will have trouble-free bending.



### Choice of blades

There is a choice of metal or composite blades to give the best result. For long life choose metal, and for minimal marking choose composite. They can be used in the same die base for flexibility.

Wilson Tool International Ltd. Stirling Road, South Marston Industrial Estate, Swindon, Wiltshire SN3 4TQ

Free phone: 0800 012 1475 Tel: +44 (0) 1793 831818 Tel free: 1-800 70 90 09 Ireland

Free fax: 0800 012 1476 Fax: +44 (0) 1793 831945 Fax free: 1-800 53 55 38 Ireland

[www.wilsontool.com](http://www.wilsontool.com) [pb.sales@wilsontool.eu.com](mailto:pb.sales@wilsontool.eu.com)



# PROTECT YOUR INVESTMENT WITH → WILSON TOOL ← STORAGE CABINETS

## BENEFITS OF A WILSON TOOL STORAGE SYSTEM:

### **Accuracy of the tooling is maintained.**

Dings and damage to badly stored press brake tooling leads to costly rework and poor quality parts. Wilson storage systems protect your tools and your investment.

### **Set-up times are significantly reduced.**

Well stored and protected tools maintain their accuracy, resulting in shorter set-up times. Damaged tooling takes longer to set-up to achieve a consistent bend along the part and can also damage the machine clamping systems which are expensive to replace.

### **Replacement costs are lower.**

If tools are not damaged during storage they will last longer and consequently your tool replacement costs will be lower.

### **Reduces the time spent searching for tools.**

With a Wilson storage system you can store and label tools in a logical manner, ensuring tools are located quickly and efficiently for new set-ups. It is also clear if something is missing, reducing the amount of searching in the cabinet for a tool which is elsewhere.

### **Storage cabinet configuration.**

The Wilson storage systems can be configured to the way you work and the type of tools you have. This makes them flexible for the future if your tooling or work methods change.



For advice and further information on any products contact Wilson Tool direct on:  
0800 012 1475 (freephone) 1-800 70 90 09 (freephone Eire) or alternatively email  
[pbsales@wilsontool.eu.com](mailto:pbsales@wilsontool.eu.com)

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# WT STYLE PRECISION PRESS BRAKE DIES...

FOR BETTER QUALITY PARTS,  
LESS MAINTENANCE,  
AND REDUCED PART MARKING.



Wilson Tool introduces an extremely durable die that significantly improves your press brake productivity with more longevity and less maintenance. As well as the high-quality manufacturing the WT Style Precision is an efficient and versatile tool.

Nitrex is added to all WT Style Precision Dies giving maximum protection and eradicating any common shoulder radii problem areas. Nitrex® Extends Tool Life, it is a high endurance surface enhancement increasing press brake tooling life by several times that of ordinary tooling. Wilson's patented process provides a surface hardness of HRC-70, increasing long-term durability and minimising galling in even the toughest bending applications.

WT Style press brake tooling is precision ground to a tolerance of +/- 0.02mm on all critical dimensions for reliable performance and accurate results.

Available standard 500 mm and sectionalised 1250mm tooling can be mixed and matched for consistent bending quality.

WT Style Precision is compatible with all Wila®, and Trumpf® style clamping systems.

For more information on WT Style Precision please contact the Wilson Tool sales desk or your local Wilson Tool sales engineer

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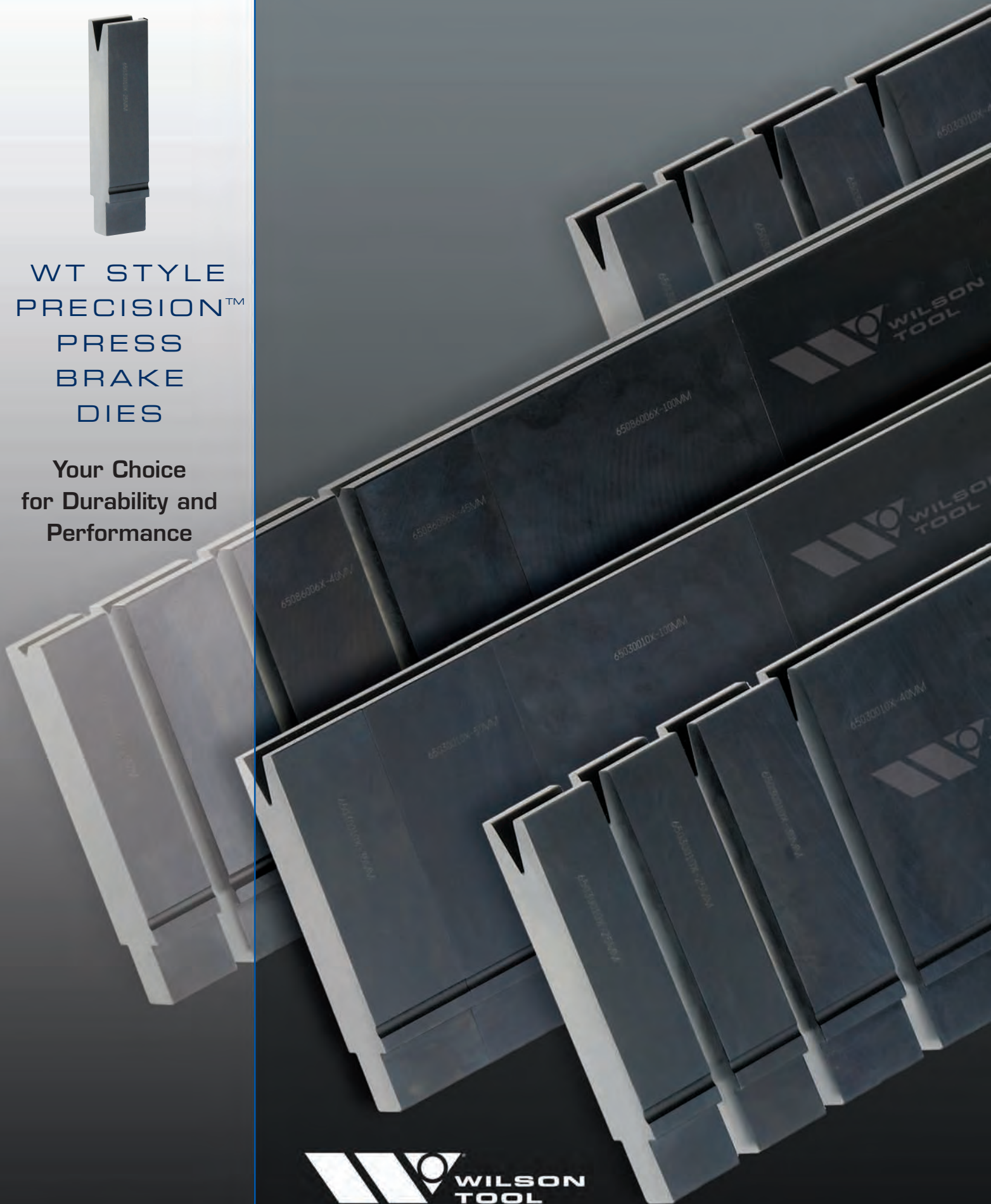
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WT STYLE  
PRECISION™  
PRESS  
BRAKE  
DIES

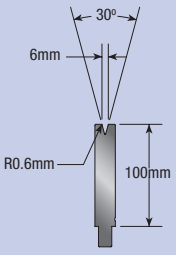
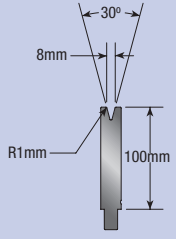
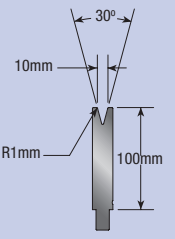
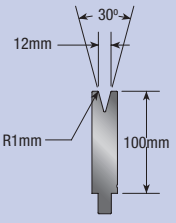
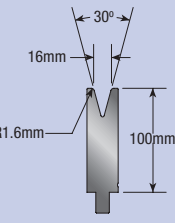
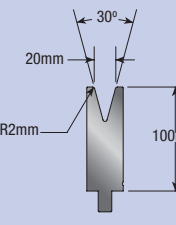
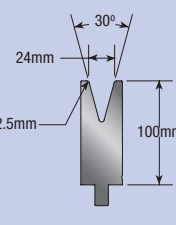
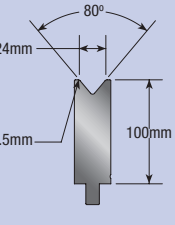
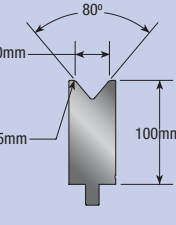
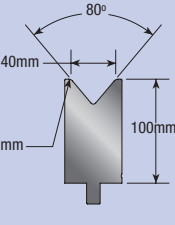
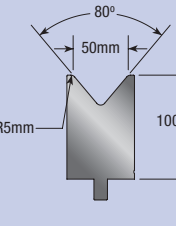
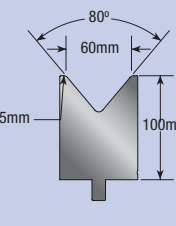
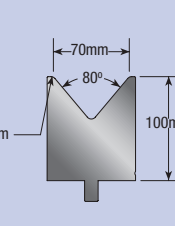
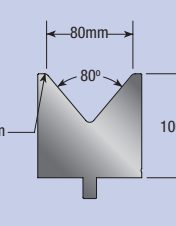
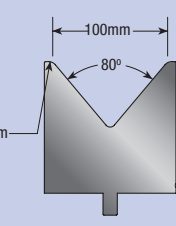
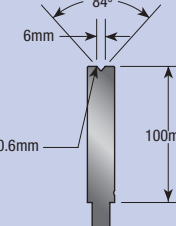
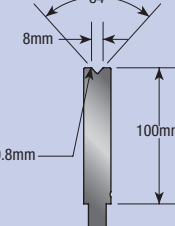
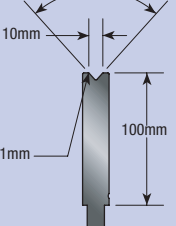
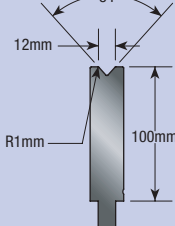
Your Choice  
for Durability and  
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*Strength. Performance. Innovation.*



# DIES

30° 1v DIE - 6mm	30° 1v DIE - 8mm	30° 1v DIE - 10mm	30° 1v DIE - 12mm	30° 1v DIE - 16mm
				
E65030006 (EV001)	E65030008 (EV002)	E65030010 (EV003)	E65030012 (EV004)	E65030016 (EV005)
30° 1v DIE - 20mm	30° 1v DIE - 24mm	80° 1v DIE - 24mm	80° 1v DIE - 30mm	80° 1v DIE - 40mm
				
E65030020 (EV006)	E65030024 (EV007)	E65080024 (EV W24/80°)	E65080030 (EV W30/80°)	E65080040 (EV W40/80°)
80° 1v DIE - 50mm	80° 1v DIE - 60mm	80° 1v DIE - 70mm	80° 1v DIE - 80mm	80° 1v DIE - 90mm
				
E65080050 (EV W50/80°)	E65080060 (EV W60/80°)	E65080070 (EV W70/80°)	E65080080 (EV W80/80°)	E65080090 (EV W90/80°)
80° 1v DIE - 100mm	84° 1v DIE - 6mm	84° 1v DIE - 8mm	84° 1v DIE - 10mm	84° 1v DIE - 12mm
				
E65080100 (EV W100/80°)	E65084006 (EV W6/84°)	E65084008 (EV W8/84°)	E65084010 (EV W10/84°)	E65084012 (EV W12/84°)



# DIES

84° 1v DIE - 16mm	84° 1v DIE - 20mm	86° 1v DIE - 6mm	86° 1v DIE - 8mm	86° 1v DIE - 10mm
E65084016 (EV W16/84°)	E65084020 (EV W20/84°)	E65086006 (EV020)	E65086008 (EV021)	E65086010 (EV022)
86° 1v DIE - 12mm	86° 1v DIE - 16mm	86° 1v DIE - 20mm	86° 1v DIE - 24mm	86° 1v DIE - 30mm
E65086012 (EV023)	E65086016 (EV024)	E65086020 (EV025)	E65086024 (EV026)	E65086030 (EV027)
86° 1v DIE - 40mm	86° 1v DIE - 50mm	HEMMING BLOCK	L POST HEMMING BLOCK	NOTES:
E65086040 (EV028)	E65086050 (EV029)	E65300001 (ZDL)	E65300002 (FWZ)	TYPICAL DIE TANG DETAIL

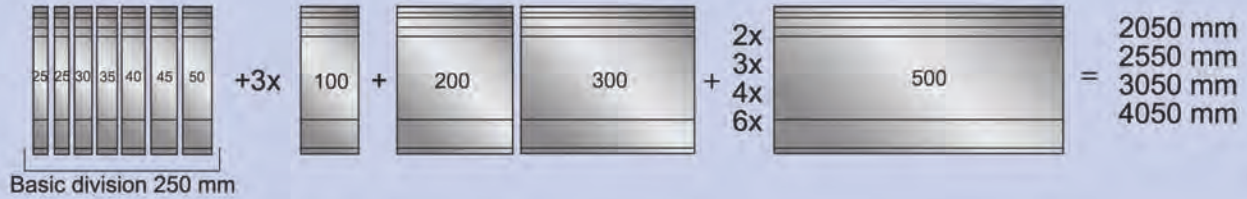
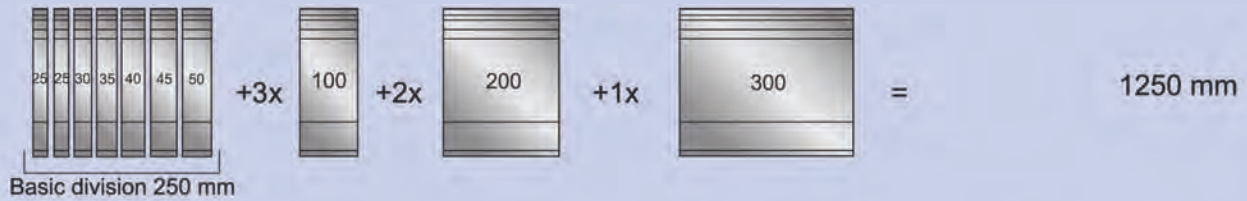
## FEATURES AND BENEFITS:

- Extended tool life - all dies come with Nitrex™ surface enhancement as standard.
- Die relief and larger shoulder radii available upon request.



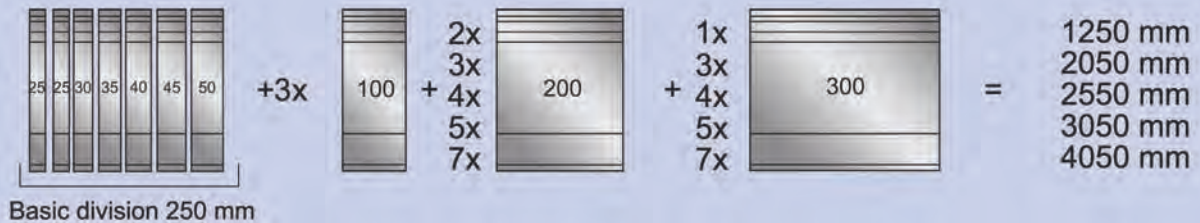
# SYSTEM DIVISION VERSION B

DIVISION VERSION FOR TOOL SETS WITH WEIGHTS OF UP TO 50kg/m

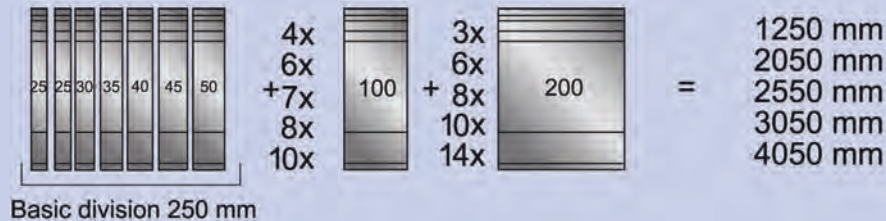


DIVISION VERSION FOR TOOL SETS WITH A WEIGHT OF MORE THAN 50kg/m

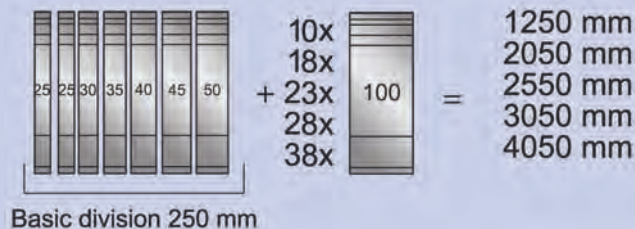
DIES: (TYPES E65080060, E65080070, E65080080, E65086050)



DIES: (TYPES E65080090, E65080100)



# SYSTEM DIVISION VERSION A

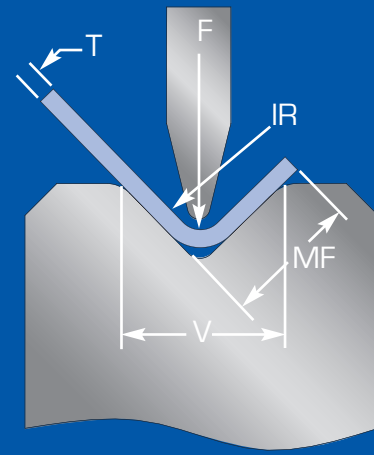


FOR MORE INFORMATION PLEASE CONTACT THE SALES DESK



# PRESS FORCE TABLE

## REQUIRED PRESS FORCE FOR 90° AIR BENDS



MATERIAL 400 N/mm<sup>2</sup> MILD STEEL

T	6	8	10	12	16	20	24	30	40	50	60	70	80	90	100	120	V
	4.5	6	7.5	9	12	15	18	22.5	30	37.5	45	52.5	60	67.5	75	90	MF
	1	1.3	1.6	1.9	2.6	3.2	3.8	4.8	6.4	8	9.6	11	13	14	16	19	IR
0.75	52	39	31	26													
1	93	70	56	47	35												
1.25	145	109	87	73	55	44											
1.5	209	157	126	105	79	63											
1.75		214	171	143	107	86	71										
2			223	186	140	112	93										
2.5				291	218	175	145	116									
3					314	251	209	168	126								
3.5					428	342	285	228	171	137							
4						447	372	298	223	179	149						
4.5						566	471	377	283	226	189	162					
5								466	349	279	233	200	175				
6								670	503	402	335	287	251	223			
7									684	547	456	391	342	304	274		
8										715	596	511	447	397	358	298	
10												798	698	621	559	466	
12													1005	894	804	670	

F/m

F in kN. T, MF, V, IR in mm.

= optimum die

MATERIAL 700 N/mm<sup>2</sup>, STAINLESS STEEL

T	6	8	10	12	16	20	24	30	40	50	60	70	80	90	100	120	V
	4.5	6	7.5	9	12	15	18	22.5	30	37.5	45	52.5	60	67.5	75	90	MF
	1	1.3	1.6	1.9	2.6	3.2	3.8	4.8	6.4	8	9.6	11	13	14	16	19	IR
0.75	87	65	52	44													
1	155	116	93	78	58												
1.25	242	182	145	121	91	73											
1.5	349	262	209	175	131	105											
1.75		356	285	238	178	143	119										
2			372	310	233	186	155										
2.5				485	364	291	242	194									
3					524	419	349	279	209								
3.5						570	475	380	285	228							
4							621	497	372	298	248						
4.5								628	471	377	314	269					
5									582	466	388	333	291				
6									838	670	559	479	419				
7										912	760	652	570	507			
8										1192	993	851	745	662	596		
10												1330	1164	1034	931	776	
12													1675	1490	1340	1118	

F/m

F in kN. T, MF, V, IR in mm.

= optimum die



# INTRODUCING...

# WILSON TOOL DIGITAL PROTRACTORS

## HIGH ACCURACY. LOW COST.

Measuring angles on sheet metal parts has become a lot easier with the Wilson Digital Protractor. These lightweight, easy-to-use, highly accurate protractors measure angles from 0 to 360 degrees with digital precision. With strong magnets built into the blade edges, they are easy to use on large or small parts.

Features of these protractors include:

- Strong, easy-to-use locking system.
- A hold function ensures you never lose your reading.
- Reverse reading capability makes it easy to calculate those hard-to-calculate angles.
- Easy to zero out the reading. Just press the Zero button.
- Readings are in degrees with decimal increments of 0.05 degree. With an accuracy of +/- 0.1 degrees and repeatability of +/- 0.05 degrees.
- The Wilson Digital Protractors can be sold individually or as a set. Each set includes a 101.6mm (4"), 203.2mm (8") and 304.8mm (12") protractor, making it easy to measure angles on the smallest to largest parts.
- Same-day shipping is available.  
For advice and further information on any products contact  
Wilson Tool direct on:  
0800 373748 (freephone) 1-800 70 90 09 (freephone Eire)  
or alternatively email [sales@wilson-tool.eu.com](mailto:sales@wilson-tool.eu.com)



Description	Cat. No
Digital Protractor measuring 101.6mm (4")	972632
Digital Protractor measuring 203.2mm (8")	972633
Digital Protractor measuring 304.8mm (12")	972634
Protractor Set Including 101.6mm (4"), 203.2mm (8") & 304.8mm (12")	972635

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[www.wilson-tool.com](http://www.wilson-tool.com) [sales@wilson-tool.eu.com](mailto:sales@wilson-tool.eu.com)





**Unique and innovative  
automated tool  
grinding machine**







The Wilson X-Sharp grinder is an absolutely unique and innovative automated punch and die grinding machine, designed with the objective of simplifying the process of sharpening punch press tools.

## Automated Tool Sharpening with the X-Sharp Grinder

### 5 steps to a sharper edge

- Step 1:** Load the tool into the chuck
- Step 2:** Set the tool size
- Step 3:** Dial in the amount to grind  
(in 0.01mm increments)
- Step 4:** Close the safety cover
- Step 5:** Press the start button to sharpen the tool



# Features

## Fully Automated Grinding Process

The regrind process on the X-Sharp is fully automated and can be operated by a user with no grinding experience. After mounting the tool in the chuck, the operator simply selects the tool size and how much to regrind, flicks the toggle switch to close the safety cover and then presses the start button. The operator is then free to return to other production tasks. When sharpening is complete, the machine returns to its original position and switches off.

## Precision

The X-Sharp uses an AC-servomotor driving a precision gear and ball screw along with dual linear guides and four carriers to provide highly stable bearing properties. This ensures a high level of precision and an excellent quality of surface finish on your sharpened tools, thus ensuring the maximum return on your investment.

## Automated Height Detection

The X-Sharp automatically measures the height of any tool mounted in the chuck before the grinding cycle begins. This also means that no manual adjustments are required to compensate for grinding wheel wear.

## Shear Grinding

Punches with shears can also be sharpened using the X-Sharp shear grinding chuck.

## Coolant

The X-Sharp is equipped with a powerful closed coolant system, ensuring the tool is constantly flooded with coolant during the grinding process. This prevents burning and surface cracking, improving the quality of the grind and helping to maximise your tool life by giving you a factory sharp edge every time.

## Frame

The machine has a heavy-duty welded frame, stress relieved prior to machining. This gives the X-Sharp superior frame stability, a fundamental requirement for professional quality grinding.

## Interlocking Safety Guard

The X-Sharp is equipped with a pneumatic, interlocking safety guard that opens and closes with a toggle switch. The guard encloses the entire grinding area to protect the health and safety of the operator.

## Grinding Space

With a unique design of safety guard, the grinding space on the X-Sharp is easily accessible from three sides. This makes the loading and unloading of tools quick and easy, and allows straightforward access for cleaning.

## Footprint

The X-Sharp was designed with the smallest footprint in the industry, so the machine can easily be placed next to the punch press. With the automation features of the X-Sharp, the operator can continue to use the punch press while a tool is being sharpened.







### Technical Specification

Maximum Tool Diameter	160 mm
Maximum Tool Height	230 mm
Maximum Grind Per Grinding Cycle	0.99 mm
Air Pressure Supply	6 bar
Power Supply	AC 415 V 3 phase – 50 Hz / 3 x 16 A
Machine Dimensions	780x776x1910 mm
Approximate Net Weight	400 kg
Grinding Motor Power	2.2 kW
Wheel Rotation Speed	2800 rpm
Table Motor Power	0.18 kW
Table Rotation Speed	40 rpm
Coolant Pump Power	0.16 kW
Coolant Pump Water Flow	Max. 70 l/min

### Machine and Accessories

Wilson X-Sharp Grinder (supplied with standard chuck)	Cat No. 55106
Wilson X-Sharp Shear Grinding Chuck	Cat No. 55115
Wilson X-Sharp Replacement Grinding Wheel	Cat No. 55109

Note: Adapters may be required for some ranges of Trumf style tooling. Contact the sales desk for further information.



**Wilson Tool International Ltd**, Stirling Road, South Marston Industrial Estate, Swindon, Wiltshire SN3 4TQ, United Kingdom  
**Telephone:** +44 (0) 1793 831818 **Fax:** +44 (0) 1793 831945 **Email:** sales@wilson-tool.com **www.wilson-tool.com**

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**FreeFax:** 0800 37 37 58

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**FreePhone:** 1-800 709 009  
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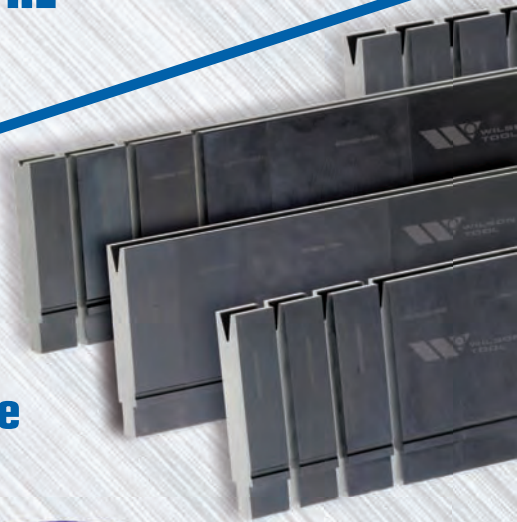


# PUNCHING AND BENDING SHEET METAL

**DO YOU EXPERIENCE ANY OF THE  
FOLLOWING PROBLEMS?**

**Slug Pulling  
Component marking  
Rapid tool wear  
Long set-ups**

**High cost of tool maintenance**



**IF THE ANSWER IS  
YES, THEN PLEASE  
CONTACT WILSON  
TOOL FOR  
FREE ADVICE ON  
0800 373748**



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# NOTES



# NOTES



## **PRECISION TOOLING. UNBEATABLE PERFORMANCE.**

For more than 40 years, Wilson Tool International® has provided industry-leading tooling solutions that enhance the performance of sheet metal fabricators.

The three divisions of Wilson Tool - Punch Press, Press Brake and Xtra - represent the most comprehensive line of tooling systems and accessories available. Our ability to consistently provide innovative, high quality products that outlast and outperform the competition is why the world's most successful fabricators rely upon Wilson Tool tooling systems.

A knowledgeable global sales force, multilingual customer support staff, same-day shipping and extensive distribution network are just a few of the benefits that keep our customers coming back time and again.

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