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## PUNCHES:

Designed and manufactured by FORZA for more than 50 years. We have the widest range on the market for all types of jobs and materials. Request a quote for custom drills

## KNOCK OUT PUNCHES




Mechanical metal sheet punches with anti-scratch washer.
Standard punches can cut up to 2 mm in steel sheets and 1.5 mm in stainless steel sheets.

Bullet points

- The screws of the 54 series drills are of very high strength $140 \mathrm{Kg} /$ mm2.
- Better performance and longer life due to ground cutting edge.

|  |  |  |  |  |  |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ref. | $\varnothing$ |  |  |  |  |  |

The standard punches can cut up to 2 mm in steel plates and up to $1,5^{*} \mathrm{~mm}$ in stainless steel sheet plates.
*This is a general recommendation; there is a wide range of steels an stainless steels. It is strongly recommended to use oil in the steel plate before cutting (e.g. using protoolube). In case of any doubt, it is recommended to use serie 56 (more cutting capacity).


The standard punches can cut up to 2 mm in steel plates and up to $1,5^{*} \mathrm{~mm}$ in stainless steel sheet plates.
*This is a general recommendation; there is a wide range of steels an stainless steels. It is strongly recommended to use oil in the steel plate before cutting (e.g. using protoolube). In case of any doubt, it is recommended to use serie 56 (more cutting capacity).

Standard punches can cut up to 2 mm in steel sheets and 1.5 mm in stainless steel sheets.

Bullet points


- The screws of the 55 series punches are of very high strength $140 \mathrm{Kg} / \mathrm{mm} 2$.
- The series 55 includes a bearing which increases the performance of the punch by $200 \%$, therefore, half of the strenth is required when cutting. Recommended for large diameter holes.
- Better performance and longer life due to ground cutting edge.

| Ref. | $\varnothing$ | Inch | PG | Screw | $\sigma$ | Spare part <br> Screw with bearing |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| 55/13 | 13 | 1/2" | - | M8 | 0,1 | 540108R |
| 55/14 | 14 | - | - | M8 | 0,1 | 540108R |
| 55/15 | 15 | - | 9 | M8 | 0,1 | 540108R |
| 55/16 | 16 | 5/8" | - | M8 | 0,1 | 540108R |
| 55/18 | 18 | - | 11 | M10 | 0,2 | 540110R |
| 55/20 | 20 | - | 13 | M10 | 0,2 | 540110R |
| 55/21 | 21 | - | - | M10 | 0,2 | 540110R |
| 55/22 | 22 | 7/8" | 16 | M10 | 0,2 | 540110R |
| 55/23 | 23 | - | - | M10 | 0,2 | 540110R |
| 55/24 | 24 | - | - | M10 | 0,2 | 540110R |
| 55/25 | 25 | 1" | - | M10 | 0,2 | 540110R |
| 55/26 | 26 | - | - | M10 | 0,2 | 540110R |
| 55/27 | 27 | - | - | M10 | 0,2 | 540110R |
| 55/28 | 28 | $13 / 32$ " | 21 | M12 | 0,4 | 540112R |
| 55/29 | 29 | - | - | M12 | 0,4 | 540112R |
| 55/30 | 30 | - | - | M12 | 0,4 | 540112R |
| 55/31 | 31 | - | - | M12 | 0,4 | 540112R |
| 55/32 | 32 | $11 / 4 "$ | - | M12 | 0,4 | 540112R |
| 55/33 | 33 | - | - | M12 | 0,4 | 540112R |
| 55/34 | 34 | $111 / 32$ " | - | M12 | 0,5 | 540112R |
| 55/35 | 35 | - | - | M12 | 0,5 | 540112R |
| 55/36 | 36 | - | - | M12 | 0,5 | 540112R |
| 55/37 | 37 | - | 29 | M12 | 0,5 | 540112R |
| 55/38 | 38 | 1 1/2" | - | M12 | 0,5 | 540112R |
| 55/39 | 39 | - | - | M12 | 0,5 | 540112R |
| 55/40 | 40 | - | - | M14 | 0,7 | 540114R |
| 55/41 | 41 | - | - | M14 | 0,8 | 540114R |
| 55/42 | 42 | - | - | M14 | 0,8 | 540114R |
| 55/43 | 43 | 111/16" | - | M14 | 0,8 | 540114R |
| 55/44 | 44 | - | - | M14 | 0,9 | 540114R |
| 55/45 | 45 | - | - | M14 | 0,8 | 540114R |
| 55/46 | 46 | - | - | M14 | 0,9 | 540114R |
| 55/47 | 47 | - | 36 | M14 | 0,9 | 540114R |
| 55/48 | 48 | - | - | M14 | 0,9 | 540114R |
| 55/49 | 49 | - | - | M14 | 1,0 | 540114R |
| 55/50 | 50 | - | - | M14 | 1,0 | 540114R |
| 55/51 | 51 | $2 "$ | - | M14 | 1,0 | 540114R |
| 55/52 | 52 | - | - | M14 | 1,1 | 540114R |
| 55/55 | 55 | - | 42 | M20 | 1,8 | 540120R |
| 55/60 | 60 | $23 / 8$ " | 48 | M20 | 2,0 | 540120R |
| 55/63 | 63 | $21 / 2 "$ | - | M20 | 1,9 | 540120R |
| 55/65 | 65 | - | - | M20 | 2,3 | 540120R |
| 55/70 | 70 | - | - | M20 | 2,3 | 540120R |
| 55/72 | 72 | - | - | M20 | 2,4 | 540120R |
| 55/75 | 75 | - | - | M20 | 2,8 | 540120R |
| 55/80 | 80 | - | - | M20 | 2,8 | 540120R |
| 55/85 | 85 | - | - | M20 | 3,5 | 540120R |
| 55/90 | 90 | - | - | M20 | 3,5 | 540120 R |
| 55/95 | 95 | - | - | M20 | 4,1 | 540120R |
| 55/100 | 100 | - |  | M20 | 4,1 | 540120R |
| 55/105 | 105 | - |  | M20 | 4,3 | 540120R |
| 55/110 | 110 | - |  | M20 | 4,6 | 540120R |
| 55/115 | 115 | - |  | M20 | 4,9 | 540120R |

Reinforced series for cutting up to 3 mm in steel sheets and 2 mm in
MORE CUTTING CAPACITY
 stainless steel sheets.
Other punch sizes can be modified to cut different thicknesses on request.


Bullet points

- The screws of the 56 series drills are of very high strength $140 \mathrm{Kg} / \mathrm{mm} 2$.
- They include a bearing which increases the performance of the drill by $200 \%$, therefore, half the force is required. Recommended for large diameter holes.
- Better performance and longer life due to ground cutting edge.

Spare part

| Ref. | $\varnothing$ | Inch | PG | Screw | $\Delta$ | Spare part <br> Screw with bearing |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| 56/16 | 16 | 5/8" | - | M8 | 0,1 | 540108R |
| 56/18 | 18 | - | 11 | M8 | 0,1 | 540108R |
| 56/20 | 20 | - | 13 | M10 | 0,2 | 540110R |
| 56/22 | 22 | 7/8" | 16 | M12 | 0,2 | 540112R |
| 56/25 | 25 | $1 "$ | - | M12 | 0,2 | 540112R |
| 56/28 | 28 | $13 / 32$ " | 21 | M12 | 0,3 | 540112R |
| 56/30 | 30 | - | - | M12 | 0,3 | 540112R |
| 56/32 | 32 | $11 / 4 "$ | - | M12 | 0,3 | 540112R |
| 56/35 | 35 | - | - | M12 | 0,4 | 540112R |
| 56/37 | 37 | - | 29 | M12 | 0,4 | 540112R |
| 56/40 | 40 | - | - | M14 | 0,6 | 540114R |
| 56/45 | 45 | - | - | M14 | 0,6 | 540114R |
| 56/47 | 47 | - | 36 | M14 | 0,8 | 540114R |
| 56/50 | 50 | - | - | M14 | 0,9 | 540114R |
| 56/55 | 55 | - | 42 | M20 | 1,6 | 540120 R |
| 56/60 | 60 | $23 / 8$ " | 48 | M20 | 1,7 | 540120R |
| 56/63 | 63 | 2 1/2" | - | M20 | 1,7 | 540120R |




The standard punches can cut up to 2 mm in steel plates and up to $1,5^{*} \mathrm{~mm}$ in stainless steel sheet plates.
*This is a general recommendation; there is a wide range of steels an stainless steels. It is strongly recommended to use oil in the steel plate before cutting (e.g. using protoolube). In case of any doubt, it is recommended to use serie 56 (more cutting capacity)

Mechanical metal sheet punches without grinding and with a antiscratch washer.
Standard punches can cut up to 2 mm in steel sheets and 1.5 mm in stainless steel sheets.

| Ref. | $\varnothing$ | Inch | PG | Screw | 00 | Spare part <br> Screw and washer |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| 54VAL13 | 12,7 | 1/2" | - | M8 | 0,1 | 54 V 108 |
| 54VAL14 | 14 | - | - | M8 | 0,1 | 54 V 108 |
| 54VAL15 | 15 | - | 9 | M8 | 0,1 | 54 V 108 |
| 54VAL16 | 16 | 5/8" | - | M8 | 0,1 | 54 V 108 |
| 54VAL18 | 18 | - | 11 | M8 | 0,1 | 54 V 108 |
| 54VAL19 | 19 | $3 / 4{ }^{\prime \prime}$ | - | M8 | 0,1 | 54 V 108 |
| 54VAL20 | 20 | - | 13 | M10 | 0,1 | 54 V 110 |
| $54 \mathrm{VAL22}$ | 22 | 7/8" | 16 | M10 | 0,1 | 54V110 |
| 54VAL25 | 25 | 1 " | - | M10 | 0,2 | 54 V 110 |
| 54VAL28 | 28 | $13 / 32^{\prime \prime}$ | 21 | M12 | 0,3 | 54 V 112 |
| 54VAL30 | 30 | - | - | M12 | 0,3 | 54 V 112 |
| $54 \mathrm{VAL32}$ | 32 | $11 / 4^{\prime \prime}$ | - | M12 | 0,3 | 54 V 112 |
| 54VAL34 | 34 | 111/32" | - | M12 | 0,4 | 54 V 112 |
| 54VAL35 | 35 | - | - | M12 | 0,4 | 54 V 112 |
| 54VAL37 | 37 | - | 29 | M12 | 0,4 | 54 V 112 |
| 54VAL38 | 38 | $11 / 2^{\prime \prime}$ | - | M12 | 0,4 | 54V112 |
| 54VAL40 | 40 | - | - | M14 | 0,6 | 54V114 |
| $54 \mathrm{VAL43}$ | 43 | 111/16" | - | M14 | 0,7 | 54 V 114 |
| 54VAL45 | 45 | - | - | M14 | 0,6 | 54V114 |
| 54VAL47 | 47 | - | 36 | M14 | 0,7 | 54 V 114 |
| 54VAL49 | 49 | 11/16" | - | M14 | 0,9 | 54V114 |
| $54 \mathrm{VAL50}$ | 50 | - | - | M14 | 0,8 | 54V114 |
| 54VAL51 | 51 | $2 "$ | - | M14 | 0,9 | 54V114 |
| $54 \mathrm{VAL52}$ | 52 | - | - | M14 | 0,9 | 54 V 114 |
| 54VAL55 | 55 | - | 42 | M20 | 1,5 | 54 V 120 |
| 54VAL60 | 60 | $23 / 8$ " | 48 | M20 | 1,6 | 54 V 120 |
| $54 \mathrm{VAL62}$ | 61,8 | $27 / 16^{\prime \prime}$ | - | M20 | 1,6 | 54 V 120 |
| 54VAL63 | 63 | $21 / 2^{\prime \prime}$ | - | M20 | 1,6 | 54 V 120 |
| 54VAL76 | 76 | 3 " | - | M20 | 2,4 | 54 V 120 |
| 54VAL89 | 89 | $31 / 2^{\prime \prime}$ | - | M20 | 3,2 | 54 V 120 |
| 54VAL91 | 91 | $39 / 16^{\prime \prime}$ | - | M20 | 3,3 | 54 V 120 |
| 54VAL102 | 102 | 4" | - | M20 | 3,8 | 54 V 120 |
| 54VAL116 | 116 | 49/16" | - | M20M20 | 4,6 | 54V120 |



The standard punches can cut up to 2 mm in steel plates and up to $1,5^{*} \mathrm{~mm}$ in stainless steel sheet plates.
*This is a general recommendation, there is a wide variety of steels and stainless steels. It is advisable to oil the sheet metal before cutting (e.g. use protoolube). In case of doubt, it is recommended to use series 56 .

Mechanical sheet punches without grinding and bearing with antiscratch washer.
Standard punches can cut up to 2 mm in steel sheets and 1.5 mm in stainless steel sheets.


Bullet points

- The screws of the 55 series drills are of very high strength $140 \mathrm{Kg} /$ mm2.
- The series 55 includes a bearing which increases the performance of the drill by $200 \%$, therefore, half of the strenth is required when cutting.

| Ref. | $\varnothing$ | Inch | PG | Screw | $\Delta$ | Spare part |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Screw with bearing |
| 55VAL13 | 12,7 | 1/2" | - | M8 | 0,1 | 540108R |
| 55VAL14 | 14 | - | - | M8 | 0,1 | 540108R |
| 55VAL15 | 15 | - | 9 | M8 | 0,1 | 540108R |
| 55VAL16 | 16 | 5/8" | - | M8 | 0,1 | 540108R |
| 55VAL18 | 18 | - | 11 | M8 | 0,1 | 540108R |
| 55VAL19 | 19 | 3/4" | - | M8 | 0,1 | 540108R |
| 55VAL20 | 20 | - | 13 | M10 | 0,2 | 540110R |
| 55VAL22 | 22 | 7/8" | 16 | M12 | 0,2 | 540112R |
| 55VAL25 | 25 | $1 "$ | - | M12 | 0,2 | 540112R |
| 55VAL28 | 28 | $13 / 32$ " | 21 | M12 | 0,4 | 540112R |
| 55VAL30 | 30 | - | - | M12 | 0,4 | 540112R |
| 55VAL32 | 32 | $11 / 4 "$ | - | M12 | 0,4 | 540112R |
| 55VAL35 | 35 | - | - | M12 | 0,5 | 540112R |
| 55VAL37 | 37 | - | 29 | M12 | 0,5 | 540112R |
| 55VAL38 | 38 | $11 / 2$ " | - | M12 | 0,6 | 540112R |
| 55VAL40 | 40 | - | - | M14 | 0,7 | 540114R |
| 55VAL43 | 43 | $111 / 16$ " | - | M14 | 0,9 | 540114R |
| 55VAL45 | 44 | - | - | M14 | 0,8 | 540114R |
| 55VAL47 | 47 | - | 36 | M14 | 0,9 | 540114R |
| 55VAL49 | 49 | - | - | M14 | 1,0 | 540114R |
| 55VAL50 | 50 | - | - | M14 | 1,0 | 540114R |
| 55VAL51 | 51 | $2 "$ | - | M14 | 1,0 | 540114R |
| 55VAL52 | 52 | - | - | M14 | 1,1 | 540114R |
| 55VAL55 | 55 | - | 42 | M20 | 1,9 | 540120R |
| 55VAL60 | 60 | $23 / 8$ " | 48 | M20 | 1,9 | 540120 R |
| 55VAL62 | 62 | 2 7/16" | - | M20 | 1,9 | 540120R |
| 55VAL63 | 63 | $21 / 2 "$ | - | M20 | 1,9 | 540120R |
| 55VAL76 | 76 | 3" | - | M20 | 2,8 | 540120R |
| 55VAL89 | 89 | $31 / 2$ " | - | M20 | 3,5 | 540120R |
| 55VAL91 | 91 | 3 9/16" | - | M20 | 3,5 | 540120R |
| 55VAL102 | 102 | 4" | -- | M20 | 4,2 | 540120R |
| 55VAL116 | 116 | $49 / 16$ | - | M20 | 4,9 | 540120R |



## SCREW AND WASHER

Spare parts screws and washers for mechanical punches.

| Ref. | Metrics | $\sigma$ |
| ---: | :---: | :---: |
| $\mathbf{5 4 V 1 0 8}$ | M8 | 0,1 |
| $\mathbf{5 4 V 1 1 0}$ | M10 | 0,1 |
| $\mathbf{5 4 V 1 1 2}$ | M12 | 0,1 |
| $\mathbf{5 4 V 1 1 4}$ | M14 | 0,1 |
| $\mathbf{5 4 V 1 2 0}$ | M20 | 0,3 |
| $\mathbf{5 4 2 0 0 8}$ | M8 | 0,1 |
| $\mathbf{5 4 2 0 1 0}$ | M10 | 0,1 |
| $\mathbf{5 4 2 0 1 2}$ | M12 | 0,1 |
| $\mathbf{5 4 2 0 1 4}$ | M14 | 0,1 |
| $\mathbf{5 4 2 0 2 0}$ | M20 | 0,4 |

## SCREW WITH BEARING

Replacement screws with bearing for mechanical punches.


| Ref. | Metrics | $\Delta \Delta$ |
| ---: | :---: | :---: |
| $\mathbf{5 4 0 1 0 8 R}$ | M8 | 0,1 |
| $\mathbf{5 4 0 1 1 0 R}$ | M10 | 0,1 |
| $\mathbf{5 4 0 1 1 2 R}$ | M12 | 0,1 |
| $\mathbf{5 4 0 1 1 4 R}$ | M14 | 0,2 |
| $\mathbf{5 4 0 1 2 0 R}$ | M20 | 0,4 |



Sets with Conduit Punches
Sizes for the American market with bearing
Thanks to the included bearing, the performance of the punches
 is increased by $200 \%$. This means that it requires only half the force of the punches.

| Ref. | $\varnothing$ Punches | Conduit | $\Delta$ | Punches |
| :---: | :---: | :---: | :---: | :---: |
| 55VL95R | $\begin{gathered} 22,5-28,3-34-3 \\ 49,7-61,8 \mathrm{~mm} \end{gathered}$ | $\begin{gathered} 1 / 2^{\prime \prime}-3 / 4^{\prime \prime}-1^{\prime \prime}- \\ 11 / 2^{\prime \prime}-2^{\prime \prime} \end{gathered}$ | 5,2 | 55VAL050-55VAL075 <br> 55VAL100-55VAL150 55VAL200 |
| 55VL96R | $\begin{gathered} 22,5-28,3-34 \\ -43,3-49,7- \\ 61,8 \mathrm{~mm} \end{gathered}$ | $\begin{gathered} 1 / 2^{\prime \prime}-3 / 4 "-1 " \\ -11 / 4^{\prime \prime}-11 / 2^{\prime \prime} \\ -2 " \end{gathered}$ | 5,8 | 55VAL050-55VAL075 <br> 55VAL100-55VAL125 <br> 55VAL150-55VAL200 |



Mechanical metal sheet punches with anti-scratch washer for the American market.
Standard punches can cut up to 2 mm in steel sheets and 1.5 mm in stainless steel sheets.
*This is a general recommendation, there is a wide variety of steels and stainless steels. It is advisable to oil the sheet metal before cutting (e.g. use protoolube). In case of doubt, it is recommended to use series 56 .

| Ref. | $\varnothing$ | Inch | Screw | Conduit Pipe Diameter | Conduit Pipe Inches | $\Delta$ | Screw and washer |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 54VAL050 | 22,5 | 7/8" | M10 | 12,7 | 1/2" | 0,2 | 54V110 |
| 54VAL075 | 28 | $13 / 32$ " | M12 | 19 | 3/4" | 0,3 | 54 V 112 |
| 54VAL100 | 35 | $111 / 32$ " | M12 | 25,4 | $1 "$ | 0,4 | 54 V 112 |
| 54VAL125 | 43 | 111/16" | M14 | 32 | $11 / 4$ " | 0,7 | 54 V 114 |
| 54VAL150 | 50 | 1 15/16" | M14 | 38 | $11 / 2$ " | 0,9 | 54 V 114 |
| 54VAL200 | 62 | $27 / 16$ " | M20 | 51 | $2 "$ | 1,6 | 54V120 |
| 54VAL250 | 76 | 2 15/16" | M20 | 63,5 | $21 / 2$ " | 2,4 | 54 V 120 |
| 54VAL300 | 91 | 3 9/16" | M20 | 76,2 | 3 " | 3,3 | 54 V 120 |
| 54VAL350 | 102 | $41 / 16$ " | M20 | 89 | $31 / 2$ " | 3,8 | 54 V 120 |
| 54VAL400 | 116 | $49 / 16$ " | M20 | 101,6 | 4" | 4,6 | 54V120 |



Mechanical sheet punches with non-ground bearing for the American market. Standard punches can cut up to 2 mm in steel sheets and 1.5 mm in stainless steel sheets.

*This is a general recommendation, there is a wide variety of steels and stainless steels. It is advisable to oil the sheet metal well before cutting (e.g. use protoolube). In case of doubt, it is recommended to use series 56 .

## Bullet points

- The screws of the 55 series drills are of very high strength $140 \mathrm{Kg} / \mathrm{mm} 2$.
- The series 55 includes a bearing which increases the performance of the drill by $200 \%$, therefore, half of the strenth is required when cutting.

| Ref. | $\varnothing$ | Inch | Screw | Conduit Pipe Diameter | Conduit Pipe Inches | $\sigma$ | Spare part |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Screw with bearing |
| 55VAL050 | 22,5 | 7/8" | M10 | 12,7 | 1/2" | 0,2 | 540110R |
| 55VAL075 | 28,3 | $13 / 32^{\prime \prime}$ | M12 | 19 | $3 / 4$ " | 0,4 | 540112R |
| 55VAL100 | 34 | $111 / 32$ " | M12 | 25,4 | 1 " | 0,5 | 540112R |
| 55VAL125 | 43 | $111 / 16$ " | M14 | 32 | $11 / 4$ " | 0,9 | 540114R |
| 55VAL150 | 50 | $115 / 16^{\prime \prime}$ | M14 | 38 | 11/2" | 1,0 | 540114R |
| 55VAL200 | 62 | $27 / 16$ | M20 | 51 | $2 "$ | 1,9 | 540120 R |
| 55VAL250 | 76 | 2 15/16" | M20 | 63,5 | $21 / 2 "$ | 2,8 | 540120R |
| 55VAL300 | 91 | 3 9/16" | M20 | 76,2 | 3 " | 3,5 | 540120R |
| 55VAL350 | 102 | 4 1/16" | M20 | 89 | $31 / 2$ " | 4,2 | 540120 R |
| 55VAL400 | 116 | $49 / 16$ " | M20 | 101,6 | 4" | 4,9 | 540120 R |



Hydraulic set.
Pump with hose and cylinder either 8Tm or 14 Tm , depending on requirements.
Includes all the necessary adapters and has the capacity to store up to 10 punches of your choice (not included in the price).
For sheet thickness $<=1 \mathrm{~mm}$, regardless of the diameter of the punch, use 5400 CH .
For metal sheet thicknesses > 1 mm :
For diameters less than 75 mm , use 5400CH.
From diameters $>75 \mathrm{~mm}$ upwards use 5414 CH .
Bullet points

- Hydraulic system increases working speed.
- Longer blade life.

| Ref. | TON | $\Delta$ | Spare parts |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Cylinder | Pump | Washer | Screw | Adaptor |
| 5400CH | 8 | 6,5 | 009541 | 009542 | $\begin{aligned} & 009054 \\ & 009056 \end{aligned}$ | 009053 009058 009059 | $\begin{aligned} & 009055 \\ & 009057 \end{aligned}$ |
| 5414CH | 14 | 7,6 | 009544 | 009542 | $\begin{aligned} & 009054 \\ & 009056 \end{aligned}$ | 009053 <br> 009058 <br> 009059 | $\begin{aligned} & 009055 \\ & 009057 \end{aligned}$ |

## Technical information of the hydraulic part



## Cylinder

| Ref. | $\varnothing$ A | $\varnothing \mathrm{D}$ | L | Stroke | Tm | $\Delta \Delta$ | Incluided in... |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 0 9 5 4 1}$ | 65 | 69 | 90 | 15 | 8 | 2,1 | 5400 CH |
| $\mathbf{0 0 9 5 4 4}$ | 80 | 86 | 90 | 15 | 14 | 3,1 | 5414 CH |

## Pump

It's a one speed pump. Maximum pressure 700 bar.
Oil capacity $328 \mathrm{~cm}^{3}$
The Oil cover has two purposes, ventilation and filling.
It works as pressure relief valve in the case os an accidental pressurization of the tank.
009542 single model includes a 900 mm long hose.

| Ref. | Tm | $\Delta \Delta$ | Incluided in... |
| ---: | :---: | :---: | :---: |
| $\mathbf{0 0 9 5 4 2}$ | $8-14$ | 3,7 | 5400 CH <br> 5414 CH |



## ADAPTOR

Adapters for hydraulic punches.

These punches consist of two parts: the punch with punch and die and the hydraulic part including cylinder, pump, hose and all necessary screws and adapters .
The standard perforators can cut up to 2 mm in steel sheets and 1.5 mm in stainless steel sheets.
Bullet points

- Hydraulic system increases working speed.
- Longer blade life.

| Ref. | $\varnothing$ | PG | Screw $\varnothing$ | 50 | Spare parts |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Washer | Screw | Adaptor |
| 54/13H | 13 | - | 8 | 0,1 | 009054 | 009053 | 009055 |
| 54/14H | 14 | - | 8 | 0,1 | 009054 | 009053 | 009055 |
| 54/15H | 15 | 9 | 8 | 0,1 | 009054 | 009053 | 009055 |
| 54/16H | 16 | - | 8 | 0,1 | 009054 | 009053 | 009055 |
| 54/17H | 17 | - | 8 | 0,1 | 009054 | 009053 | 009055 |
| 54/18H | 18 | 11 | 12 | 0,1 | 009056 | 009058 | 009057 |
| 54/19H | 19 |  | 12 | 0,1 | 009056 | 009058 | 009057 |
| 54/20H | 20 | 13 | 12 | 0,1 | 009056 | 009058 | 009057 |
| 54/21H | 21 | - | 12 | 0,1 | 009056 | 009058 | 009057 |
| 54/22H | 22 | 16 | 12 | 0,1 | 009056 | 009058 | 009057 |
| 54/23H | 23 | - | 12 | 0,1 | 009056 | 009058 | 009057 |
| 54/24H | 24 | - | 12 | 0,1 | 009056 | 009058 | 009057 |
| 54/25H | 25 | - | 12 | 0,2 | 009056 | 009058 | 009057 |
| 54/26H | 26 | - | 12 | 0,2 | 009056 | 009058 | 009057 |
| 54/27H | 27 | - | 12 | 0,2 | 009056 | 009058 | 009057 |
| 54/28H | 28 | 21 | 12 | 0,2 | 009056 | 009058 | 009057 |
| 54/29H | 29 | - | 12 | 0,2 | 009056 | 009058 | 009057 |
| 54/30H | 30 | - | 12 | 0,2 | 009056 | 009058 | 009057 |
| 54/31H | 31 | - | 12 | 0,2 | 009056 | 009058 | 009057 |
| 54/32H | 32 | - | 12 | 0,2 | 009056 | 009058 | 009057 |
| 54/33H | 33 | - | 12 | 0,2 | 009056 | 009058 | 009057 |
| 54/34H | 34 | - | 12 | 0,3 | 009056 | 009058 | 009057 |
| 54/35 | 35 | - | 12 | 0,4 | 009056 | 009058 | 009057 |
| 54/36H | 36 | - | 12 | 0,4 | 009056 | 009058 | 009057 |
| 54/37 | 37 | 29 | 12 | 0,4 | 009056 | 009058 | 009057 |
| 54/38H | 38 | - | 12 | 0,3 | 009056 | 009058 | 009057 |
| 54/39H | 39 | - | 12 | 0,4 | 009056 | 009058 | 009057 |
| 54/40H | 40 | - | 20 | 0,4 | 54004 | 009059 | - |
| 54/41H | 41 | - | 20 | 0,5 | 54004 | 009059 | - |
| 54/42H | 42 | - | 20 | 0,5 | 54004 | 009059 | - |
| 54/43H | 43 | - | 20 | 0,5 | 54004 | 009059 | - |
| 54/44H | 44 | - | 20 | 0,5 | 54004 | 009059 | - |
| 54/45H | 45 | - | 20 | 0,6 | 54004 | 009059 | - |
| 54/46H | 46 | - | 20 | 0,6 | 54004 | 009059 | - |
| 54/47H | 47 | 36 | 20 | 0,6 | 54004 | 009059 | - |
| 54/48H | 48 | - | 20 | 0,6 | 54004 | 009059 | - |
| 54/49H | 49 | - | 20 | 0,7 | 54004 | 009059 | - |
| 54/50H | 50 | - | 20 | 0,7 | 54004 | 009059 | - |
| 54/51H | 51 | - | 20 | 0,8 | 54004 | 009059 | - |
| 54/52H | 52 | - | 20 | 0,8 | 54004 | 009059 | - |
| 54/55H | 55 | 42 | 20 | 1,2 | 54004 | 009059 | - |
| 54/60H | 60 | 48 | 20 | 1,3 | 54004 | 009059 | - |
| 54/62H | 62 | - | 20 | 1,3 | 54004 | 009059 | - |
| 54/63H | 63 | - | 20 | 1,3 | 54004 | 009059 | - |
| 54/65 | 65 | - | 20 | 1,8 | 54004 | 009059 | - |
| 54/70H | 70 | - | 20 | 1,8 | 54004 | 009059 | - |
| 54/72H | 72 | - | 20 | 1,8 | 54004 | 009059 | - |
| 54/75 | 75 | - | 20 | 2,2 | 54004 | 009059 | - |
| 54/80H | 80 | - | 20 | 2,2 | 54004 | 009059 | - |
| 54/85H | 85 | - | 20 | 2,9 | 54004 | 009059 | - |
| 54/90H | 90 | - | 20 | 3,0 | 54004 | 009059 | - |
| 54/95H | 95 | - | 20 | 3,5 | 54004 | 009059 | - |
| 54/100H | 100 |  | 20 | 3,5 | 54004 | 009059 | - |
| 54/102H | 102 |  | 20 | 3,6 | 54004 | 009059 | - |
| 54/105H | 105 |  | 20 | 3,7 | 54004 | 009059 | - |
| 54/110H | 110 |  | 20 | 4,0 | 54004 | 009059 | - |
| 54/115 | 115 |  | 20 | 4,3 | 54004 | 009059 | - |



These punches consist of 2 parts: Complete punche with punch and die and hydraulic part including cylinder, pump, hose and all necessary screws and adapters.
Reinforced series for cutting up to 3 mm in steel sheets and 2 mm in stainless steel sheets.

Bullet points

- Hydraulic system increases working speed.
- Longer blade life.


|  |  |  |  | Sapre parts |  |  |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ref. | PG | Screw $\varnothing$ | $\varnothing$ | PG | Washer | Screw | Adaptor |
| $\mathbf{5 6 / 1 6 H}$ | - | 8 | 16 | - | 009054 | 009053 | 009055 |
| $\mathbf{5 6 / 1 8 H}$ | 11 | 12 | 18 | 11 | 009056 | 009058 | 009057 |
| $\mathbf{5 6 / 2 1 H}$ | - | 12 | 21 | - | 009056 | 009058 | 009057 |
| $\mathbf{5 6 / 2 2 H}$ | 13 | 12 | 22 | 16 | 009056 | 009058 | 009057 |
| $\mathbf{5 6 / 2 5 H}$ | - | 12 | 25 | - | 009056 | 009058 | 009057 |
| $\mathbf{5 6 / 2 H}$ | 21 | 12 | 28 | 21 | 009056 | 009058 | 009057 |
| $\mathbf{5 6 / 3 0 H}$ | - | 12 | 30 | - | 009056 | 009058 | 009057 |
| $\mathbf{5 6 / 3 2 H}$ | - | 12 | 32 | - | 009056 | 009058 | 009057 |
| $\mathbf{5 6 / 3 5 H}$ | - | 12 | 35 | - | 009056 | 009058 | 009057 |
| $\mathbf{5 6 / 3 7 H}$ | 29 | 12 | 37 | 29 | 009056 | 009058 | 009057 |
| $\mathbf{5 6 / 4 0 H}$ | - | 20 | 40 | - | 54004 | 009059 | - |
| $\mathbf{5 6 / 4 5 H}$ | - | 20 | 45 | - | 54004 | 009059 | - |
| $\mathbf{5 6 / 4 7 H}$ | 36 | 20 | 47 | 36 | 54004 | 009059 | - |
| $\mathbf{5 6 / 5 0 H}$ | - | 20 | 50 | - | 54004 | 009059 | - |
| $\mathbf{5 6 / 5 5 H}$ | 42 | 20 | 55 | 42 | 54004 | 009059 | - |
| $\mathbf{5 6 / 6 0 H}$ | 48 | 20 | 60 | 48 | 54004 | 009059 | - |
| $\mathbf{5 6 / 6 3 H}$ | - | 20 | 63 | - | 54004 | 009059 | - |



54C20 / 54C22 / 54C25


54C30 / 54C35

Mechanical square hole punch for metal sheet cutting. They can cut up to 2 mm in steel sheets and 1,5* mm in stainless steel sheets.
*This is a general recommendation, there is a great variety of steels and stainless steels. It is advisable to oil the metal sheet before cutting (e.g. use protoolube).


54C46 / 54C67 / 54C92

| Ref. | Square | Screw | Type | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: |
| $\mathbf{5 4 C 2 0}$ | $20 \times 20$ | M12 | With washer | 0,4 |
| $\mathbf{5 4 C 2 2}$ | $22 \times 22$ | M12 | With washer | 0,4 |
| $\mathbf{5 4 C 2 5}$ | $25 \times 25$ | M12 | With washer | 0,4 |
| $\mathbf{5 4 C 3 0}$ | $30 \times 30$ | M17 | With washer | 0,9 |
| $\mathbf{5 4 C 3 5}$ | $35 \times 35$ | M17 | With washer | 1,3 |
| $\mathbf{5 4 C 4 6}$ | $46 \times 46$ | M-20 | With bearing | 2,2 |
| $\mathbf{5 4 C 6 7}$ | $67 \times 67$ | M-20 | With bearing | 3,3 |
| $\mathbf{5 4 C 9 2}$ | $92 \times 92$ | M-20 | With bearing | 5,5 |



Rectangular mechanical punch for sheet metal cutting.
Square punches can cut up to 2 mm in steel sheets and 1.5* mm in stainless steel sheets.
*This is a general recommendation, there is a great variety of steels and stainless steels. It is advisable to oil the sheet metal before cutting (e.g. use protoolube).

| Ref. | Rectangle | Screw | Type | $\sigma$ |
| ---: | :---: | :---: | :--- | :---: |
| 54R2517 | $25 \times 17$ | $\mathrm{M}-8$ | With washer | 0,4 |
| 54R3022 | $30 \times 22$ | $\mathrm{M}-10$ | With washer | 0,5 |
| 54R4070 | $40 \times 70$ | $\mathrm{M}-20$ | With bearing | 2,8 |
| 54RE2870 | $28 \times 70$ | $\mathrm{M}-20$ | With bearing | 2,0 |
| 54RE3252 | $32 \times 52$ | $\mathrm{M}-20$ | With washer | 1,5 |
| 54RE4290 | $42 \times 90$ | $\mathrm{M}-20$ | With bearing | 3,1 |
| 54RE5280 | $52 \times 80$ | $\mathrm{M}-20$ | With bearing | 2,8 |
| 54R35113 | $35 \times 113$ | $\mathrm{M}-20$ | With bearing | 0,0 |



Hydraulic square hole punch for sheet metal cutting.
Square punches can cut up to 2 mm in steel sheets and 1.5 mm in stainless steel sheets.
These punches consist of two parts, the complete punches with the specific spindle for the hydraulic equipment and the hydraulic power pack including cylinder, pump and hose.

## Bullet points

- Hydraulic mechanism increases working speed.
- Longer blade life.

| Ref. | Square | Screw | $\Delta \Delta$ |  |
| :---: | ---: | :---: | :---: | :---: |
|  | 54C46H | $46 \times 46$ | M20x2,5 | 1,9 |
| $\mathbf{5 4 C 6 7 H N}$ | $67 \times 67$ | M20x2,5 | 2,8 |  |
| $\mathbf{5 4 C 9 2 H}$ | $92 \times 92$ | M20x2,5 | 5,1 |  |



Hydraulic rectangular punch for sheet metal cutting.
Square punches can cut up to 2 mm in steel sheets and 1.5 mm in stainless steel punches.
These punches are composed of two parts, the complete punches with the specific spindle for the hydraulic equipment and the hydraulic power pack including cylinder, pump and hose.
Bullet points

- Hydraulic mechanism increases working speed.
- Longer blade life.

| Ref. | Rectangle | Screw | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: |
| 54RE2870H | $28 \times 70$ | M20x2,5 | 1,9 |
| 54R4070H | $40 \times 70$ | M20x2,5 | 2,4 |
| 54RE4290H | $42 \times 90$ | M20x2,5 | 2,6 |
| 54R5280H | $52 \times 90$ | M20x2,5 | 2,6 |
| 54RE3252H | $32 \times 52$ | M20x2,5 | 1,4 |
| 54R35113H | $35 \times 113$ | M20x2,5 | 0,0 |



Set of 4 mechanical punches series 54 with anti-scratch washer Standard punches can cut up to 2 mm in steel sheets and 1.5 mm in stainless steel sheets.
*This is a general recommendation, there is a wide variety of steels and stainless steels. It is advisable to oil the sheet metal before cutting (e.g. use protoolube). In case of doubt, it is recommended to use the 56 series.

## Bullet points

- The screws of the 54 series punches are of very high strength $140 \mathrm{Kg} / \mathrm{mm} 2$.
- Better performance and longer life due to ground cutting edge.


Capacity 4 knock out punches plastic box.
Possibility of customized sets.

| Ref. | Incuded <br> measures | $\checkmark \Delta$ | Punches |
| ---: | :---: | :---: | :---: |
| $\mathbf{5 4 J 4 1}$ | $18-20-22-37$ | 1,0 | $54 / 18-54 / 20-54 / 22-54 / 37$ |
| $\mathbf{5 4 J 4 2}$ | $16-20-25-32$ | 1,0 | $54 / 16-54 / 20-54 / 25-54 / 35$ |
| $\mathbf{5 4 J 4 3}$ | $18-22-25-32$ | 0,9 | $54 / 18-54 / 22-54 / 25-54 / 32$ |
| $\mathbf{5 4 J 4 4}$ | $16-20-25-32$ | 0,9 | $54 / 16-54 / 20-54 / 25-54 / 32$ |
| $\mathbf{5 4 J 4 5}$ | $14-18-20-32$ | 0,8 | $54 / 14-54 / 18-54 / 20-54 / 32$ |
| $\mathbf{5 4 J 4 6}$ | $15-20-22-28$ | 0,8 | $54 / 15-54 / 20-54 / 22-54 / 28$ |
| $\mathbf{5 4 J 4 8}$ | $16-19-25-32$ | 1,0 | $54 / 16-54 / 19-54 / 25-54 / 32$ |
| $\mathbf{5 4 J 4 9}$ | $12.7-19-25-32$ | 1,0 | $54 / 13-54 / 19-54 / 25-54 / 32$ |



Set of 4 mechanical punches series 55 with bearing.
 Standard punches can cut up to 2 mm in steel sheets and 1.5 mm in stainless steel sheets.
*This is a general recommendation, there is a great variety of steels
 and stainless steels. It is advisable to oil the sheet metal before cutting (e.g. use protoolube). In case of doubt, it is recommended to use the 56 series.

## Bullet points

- The screws of the 56 series punches are of very high strength $140 \mathrm{Kg} / \mathrm{mm} 2$.
- They include a bearing which increases the performance of the drill by $200 \%$, therefore, half the force is required.
- Better performance and longer life due to ground cutting edge.


## Capacity 4 knock out punches plastic box. <br> Same options as 54J. <br> Possibility of customized sets

| Ref. | Incuded <br> measures | $\checkmark \Delta$ | Punches |
| ---: | :---: | :---: | :---: |
| 54JR41 | $18-20-22-37$ | 1,1 | $55 / 18-55 / 20-55 / 22-55 / 37$ |
| 54JR42 | $16-20-25-35$ | 1,1 | $55 / 16-55 / 20-55 / 25-55 / 35$ |
| 54JR43 | $16-22-25-32$ | 1,0 | $55 / 16-55 / 22-55 / 25-55 / 32$ |
| 54JR44 | $16-20-25-32$ | 1,0 | $55 / 16-55 / 20-55 / 25-55 / 32$ |



54 series mechanical punches sets with anti-scratch washer. Standard punches can cut up to 2 mm in steel sheets and 1.5 mm in stainless sheets.
*This is a general recommendation, there is a wide variety of steels and stainless It is advisable to oil the sheet metal well before cutting (e.g. use protoolube). In case of doubt, it is recommended to use the 56 series.

Bullet points

- The screws of the 54 series punches are of very high strength $140 \mathrm{Kg} /$ mm2.
- Better performance and longer life due to ground cutting edge.

| Ref. | Incuded measures | Oil | $\Delta$ | Punches |
| :---: | :---: | :---: | :---: | :---: |
| 54E1 | 16-20-25-32-40 | 1 Bottle | 2,1 | 54/16-54/20-54/25-54/32-54/40 |
| 54E3 | 16-20-25-32-40-50-63 | - | 4,2 | 54/16-54/20-54/25-54/32-54/40-54/50-54/63 |
| 54A | 15-18-20-22-28-37-47 | 1 Bottle | 2,6 | 54/15-54/18-54/20-54/22-54/28-54/37-54/47 |
| 54F1 | 16-19-22-29-38-44 | 1 Bottle | 2,5 | 54/16-54/19-54/22-54/29-54/38-54/44 |
| 54F3 | 16-19-22-29-38-44-55-60 | - | 5,1 | 54/16-54/19-54/22-54/29-54/38-54/44-54/55-54/60 |
| 54G00 | 15-18-20-22-28-37-47-55-60 | - | 5,2 | 54/15-54/18-54/20-54/22-54/28-54/37-54/47-54/55-54/60 |
| 54M1 | 16-18-20-22-25-35-40 | 1 Bottle | 2,3 | 54/16-54/18-54/20-54/22-54/25-54/35-54/40 |
| 54M3 | 16-18-20-22-25-35-40-55-60 | - | 5,0 | 54/16-54/18-54/20-54/22-54/25-54/35-54/40-54/55-54/60 |

## HYDRAULIC KNOCK OUT PUNCH SET



Hydraulic punches sets series 54.
"Case for rigid pipe standards".
Can cut up to 2 mm in steel sheets and 1.5 mm in stainless steel sheets.

| Ref. | Incuded measures | Oil | $\sigma$ | Punches |
| ---: | :---: | :---: | :---: | :---: |
| 54AH | $18-20-22-28-37-47$ | 1 Bottle | 2,2 | $54 / 18 \mathrm{H}-54 / 20 \mathrm{H}-54 / 22 \mathrm{H}-54 / 28 \mathrm{H}$ <br> $54 / 37 \mathrm{H}-54 / 47 \mathrm{H}$ |
| 54E1H | $16-20-25-32-40$ | 1 Bottle | 1,8 | $54 / 16 \mathrm{H}-54 / 20 \mathrm{H}-54 / 25 \mathrm{H}$ <br> $54 / 32 \mathrm{H}-54 / 40 \mathrm{H}$ |
| 54E3H | $16-20-25-32-40-50-63$ |  | 3,4 | $54 / 16 \mathrm{H}-54 / 20 \mathrm{H}-54 / 25 \mathrm{H}-54 / 32 \mathrm{H}$ <br> $54 / 40 \mathrm{H}-54 / 50 \mathrm{H}-54 / 63 \mathrm{H}$ |
| 54F1H | $19-22-29-38-44$ | 1 Bottle | 2,1 | $54 / 19 \mathrm{H}-54 / 22 \mathrm{H}-54 / 29 \mathrm{H}$ <br> $54 / 38 \mathrm{H}-54 / 44 \mathrm{H}$ |
| 54F3H | $19-22-29-38-44-55-60$ |  | 4,3 | $54 / 19 \mathrm{H}-54 / 22 \mathrm{H}-54 / 29 \mathrm{H}-54 / 38 \mathrm{H}$ <br> $54 / 44 \mathrm{H}-54 / 55 \mathrm{H}-54 / 60 \mathrm{H}$ |
| 54G00H | $18-20-22-28-37-47-55-60$ |  | 4,5 | $54 / 18 \mathrm{H}-54 / 20 \mathrm{H}-54 / 22 \mathrm{H}-54 / 28 \mathrm{H}$ <br> $54 / 37 \mathrm{H}-54 / 47 \mathrm{H}-54 / 55 \mathrm{H}-54 / 60 \mathrm{H}$ |
| 54M1H | $18-20-22-25-35-40$ | 1 Bottle | 2,0 | $54 / 18 \mathrm{H}-54 / 20 \mathrm{H}-54 / 22 \mathrm{H}$ <br> $54 / 25 \mathrm{H}-54 / 35 \mathrm{H}-54 / 40 \mathrm{H}$ |
| 54M3H | $18-20-22-25-35-40-55-60$ |  | 4,2 | $54 / 18 \mathrm{H}-54 / 20 \mathrm{H}-54 / 22 \mathrm{H}-54 / 25 \mathrm{H}$ <br> $54 / 35 \mathrm{H}-54 / 40 \mathrm{H}-54 / 60 \mathrm{H}$ |



54VAL series punches sets without grinding with anti-scratch washer Standard punches can cut up to 2 mm in steel sheets and 1.5 mm in stainless steel sheets.

*This recommendation is general, there is a great variety of steels and stainless steels. It is advisable to oil the sheet metal well before cutting (e.g. use protoolube). In case of doubt, it is recommended to use series 56.

| Ref. | Incuded measures | $\Delta$ | Punches |
| :---: | :---: | :---: | :---: |
| 54VK43 | 18-22-25-32 | 0,9 | 54VAL18-54VAL22 <br> 54VAL25-54VAL32 |
| 54VK46 | 15-20-22-28 | 0,8 | 54VAL15-54VAL20 <br> 54VAL22-54VAL28 |
| 54VK48 | $5 / 8 "-3 / 4 \prime-1 "-11 / 4 "$ | 0,8 | 54VAL16-54VAL19 <br> 54VAL25-54VAL32 |
| 54VK49 | $1 / 2 "-3 / 4 "-1 "-11 / 4 "$ | 0,9 | 54VAL13-54VAL19 <br> 54VAL25-54VAL32 |
| 54VK52 | 1/2"-3/4"-1"-11/2" | 1,1 | 54VAL13-54VAL19 <br> 54VAL25-54VAL38 |

54 series punches display stand.
The content of the display can be customized adapting it to the customer's needs

Bullet points

- The screws of the 54 series punches are of very high strength $140 \mathrm{Kg} / \mathrm{mm} 2$.
- Better performance and longer life due to ground cutting edge.

| Ref. | $\Delta \Delta$ |
| ---: | :---: |
| 5499A | 33,0 |

54 series punches display with anti-scratch washer.


Bullet points

- The screws of the 54 series punches are of very high strength $140 \mathrm{Kg} / \mathrm{mm} 2$.
- Better performance and longer life due to ground cutting edge.


Tools designed for punching holes in the following materials: plastic, leather, rubber, fibre, fabric, special paper for gasketing, cardboard, lead, thin aluminium foil...
Stepped handle for double punch.


Composition:
Ø 3-4-6-8-10 mm.
$\varnothing$ 12-14-16-18-20 mm.
Interchangeable punches.
Bullet points

- Allows two cutters to be mounted at the same time for the production of washers and special seals.


|  |  |  |  |  |
| ---: | :---: | :---: | :---: | :---: |
| Ref. | Holes from | Holes to | $\Delta$ | Handle part |
| $\mathbf{8 6 3 2 0 M}$ | 3 mm | 20 mm | 0,6 | 86320 MAN |



Tools designed for punching holes in the following materials: plastic, leather, ruk fabric, special gasket paper, cardboard, lead, thin aluminium foil...
Stepped handle for double hole punch
Composition:
$\varnothing$ 3-4-6-8-10 mm
$\varnothing$ 12-14-16-18-20 mm.
Ø 22-24-26-28-30 mm.
Double punch.
Impact head treated according to international standards.

## Bullet points

- Allows two cutters to be mounted at the same time for the production of washers and special seals.
- With anti-rebound handle.


WATCH
VIDEO


Tools designed for punching holes in the following materials: plastic, leather, rubber, fibre, fabric, special jointing paper, cardboard, lead, thin aluminium foil...
Stepped handle for double punch.


Composition:
Ø 3-4-6-8-10 mm
$\varnothing$ 12-14-16-18-20 mm
$\varnothing$ 22-24-26-28-30 mm
Retractable centring tip.
Adjustable compass up to 330 mm with blade.
Impact head treated to international standards.

## Bullet points

- Allows two cutters to be mounted at the same time for the production of washers and special seals.
- With anti-rebound handle.


|  |  |  |  | Spare part |
| ---: | :---: | :---: | :---: | :---: |
| Ref. | Holes from | Holes to | $\Delta$ | Handle |
| $\mathbf{8 6 3 3 0 M C}$ | 3 mm | 330 mm | 1,3 | $\mathbf{8 6 3 3 0 \mathrm { MAN }}$ |

## HOLLOW PUNCHES FROM 2 TO 50MM + RETRACTABLE CENTERING TIP 86250M



Tools designed for punching holes in the following materials: plastic, leather, rubber, fibre, fabric, special gasket paper, cardboard, lead, thin aluminium foil...
Stepped handle for double hole punch.
Composition:
Ø 2-3-4-5-6-7-8-9-10 mm
$\varnothing$ 12-14-16-18-20 mm
$\varnothing$ 22-24-26-28-30 mm
Ø 32-34-36-38-40 mm
Ø 42-44-46-48-48-50 mm
Retractable centring tip.
Impact head treated according to international standards.
Bullet points

- Allows two cutters to be mounted at the same time for the production of washers and special seals.
- With anti-rebound handle.


Spare adapter for hollow punch set Ref. 86250M.

| Ref. | Hollow punches | $\Delta \Delta$ |
| ---: | :---: | :---: |
| $\mathbf{8 6 2 5 0 M A P}$ | From 12 to 50 mm | 0,1 |

## HOLLOW PUNCH HANDLE 86250M

Replacement handle for punch Ref. 86250M.


| Ref. | Diameters | $\Delta \Delta$ |
| ---: | :---: | :---: |
| 86250MAN | 2 to 50 | 0,5 |

## HOLLOW PUNCH HANDLE 86320M

Replacement handle for punch Ref. 86250 M


| Ref. | Diameters | $\Delta \Delta$ |
| ---: | :---: | :---: |
| 86320MAN | 3 to 20 | 0,6 |

## HOLLOW PUNCH HANDLE 86330M

Replacement handle for punch Ref. 86330 M and Ref. 86330 MC .


| Ref. | Diameters | $\Delta \Delta$ |
| ---: | :---: | :---: |
| $\mathbf{8 6 3 3 0 M A N}$ | 3 to 30 | 0,6 |

INTERCHANGE HOLLOW PUNCHES


| Ref. | $\varnothing$ | $\Delta \Delta$ |
| ---: | :---: | :---: |
| 86006 | 6 | 0,1 |
| 86008 | 8 | 0,1 |
| 86010 | 10 | 0,1 |
| 86012 | 12 | 0,1 |
| 86014 | 14 | 0,1 |
| 86016 | 16 | 0,1 |
| 86018 | 18 | 0,1 |
| 86020 | 20 | 0,1 |
| 86022 | 22 | 0,1 |
| 86024 | 24 | 0,1 |
| 86026 | 26 | 0,1 |
| 86028 | 28 | 0,1 |
| 86030 | 30 | 0,1 |
| 86032 | 32 | 0,1 |
| 86034 | 34 | 0,1 |
| 86036 | 36 | 0,1 |
| 86038 | 38 | 0,1 |
| 86040 | 40 | 0,1 |
| 86042 | 42 | 0,1 |
| 86044 | 44 | 0,1 |
| 86046 | 46 | 0,1 |
| 86048 | 48 | 0,1 |
| $\mathbf{8 6 0 5 0}$ | 50 | 0,1 |
| 86052 | 52 | 0,1 |
| $\mathbf{8 6 0 5 4}$ | 54 | 0,1 |

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## BI-METAL HOLE SAWS CUTS SELECTION GUIDE

IMPROVED METAL CUTTING PERFORMANCE Optimized tooth design penetrates metal with easel.

FAST, EFFICIENT CUTTING IN WOOD
Larger, sharper teeth remove more wood for fast cutting.

| WOOD | NAILEMBEDDED WOOD | NONFRERROUS METAL | PLÁSTIC \& COMPOSITES | METAL | STAINLESS STEEL | DRYWALL PLASTER | CEMENT BOARD |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | -1 |
| BI-METAL |  |  |  |  |  |  |  |

SPEED SLOT staircase design for fast, easy plug ejection.

Advanced tooth design increases cutting life.

10\% Thicker Wall adds strength and durability.


If during the cutting process you notice any "wobbling", reduce the RPM. In metals it is advisable to use Protool LUBE cutting oil or cutting oil, it increases the life of the crowns.


Hole saws designed for drilling wood and metal.
Cutting depth 47 mm .
Bullet points

- Staggered side groove design for fast and easy chip ejection.
- Larger and sharper teeth evacuate more chips for faster cutting.
- Side tab allows the insertion of a screwdriver.


| Ref. | $\varnothing$ | Inches | Highspeed steel | Variable tooth | Standard arbor | RPM SWEET STEEL | RPM STAINLESS STEEL | $\begin{aligned} & \text { RPM } \\ & \text { IRON } \end{aligned}$ | $\begin{gathered} \text { RPM } \\ \text { BRASS } \end{gathered}$ | RPM ALUM | $\Delta$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30009 | 14 | 9/16" | M-42 | 4/6 | 1L , 4L, 5L | 580 | 300 | 400 | 790 | 900 | 0,1 |
| 30010 | 16 | 5/8" | M-42 | 4/6 | 1L, 4L, 5L | 550 | 275 | 365 | 730 | 825 | 0,1 |
| 30011 | 17 | 11/16" | M-42 | 4/6 | 1L , 4L, 5L | 500 | 250 | 330 | 665 | 750 | 0,1 |
| 30012 | 19 | 3/4" | M-42 | 4/6 | 1L, 4L, 5L | 460 | 230 | 300 | 600 | 690 | 0,1 |
| 30098 | 20 | - | M-42 | 4/6 | 1L, 4L, 5L | 425 | 210 | 280 | 560 | 630 | 0,1 |
| 30013 | 21 | 13/16" | M-42 | 4/6 | 1L, 4L, 5L | 425 | 210 | 280 | 560 | 630 | 0,1 |
| 30014 | 22 | 7/8" | M-42 | 4/6 | 1L, 4L, 5L | 390 | 195 | 260 | 520 | 585 | 0,1 |
| 30015 | 24 | 15/16" | M-42 | 4/6 | 1L, 4L, 5L | 370 | 185 | 245 | 495 | 555 | 0,1 |
| 30016 | 25 | 1" | M-42 | 4/6 | 1L, 4L, 5L | 350 | 175 | 235 | 470 | 525 | 0,1 |
| 30017 | 27 | 1-1/16" | M-42 | 4/6 | 1L , 4L, 5L | 325 | 160 | 215 | 435 | 480 | 0,1 |
| 30018 | 29 | 1-1/8" | M-42 | 4/6 | 1L, 4L, 5L | 300 | 150 | 200 | 400 | 450 | 0,1 |
| 30019 | 30 | 1-3/16" | M-42 | 4/6 | 1L , 4L, 5L | 285 | 145 | 190 | 380 | 425 | 0,1 |
| 30020 | 32 | 1-1/4" | M-42 | 4/6 | 2L, 3L, 6L | 275 | 140 | 180 | 360 | 410 | 0,1 |
| 30021 | 33 | 1-5/16" | M-42 | 4/6 | 2L, 3L, 6L | 260 | 135 | 175 | 345 | 390 | 0,1 |
| 30022 | 35 | 1-3/8" | M-42 | 4/6 | 2L, 3L, 6L | 250 | 125 | 165 | 330 | 375 | 0,1 |
| 30023 | 37 | 1-7/16" | M-42 | 4/6 | 2L, 3L, 6L | 240 | 120 | 160 | 315 | 360 | 0,1 |
| 30024 | 38 | 1-1/2" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 230 | 115 | 150 | 300 | 345 | 0,1 |
| 30025 | 40 | 1-9/16" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 220 | 110 | 145 | 290 | 330 | 0,1 |
| 30026 | 41 | 1-5/8" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 210 | 105 | 140 | 280 | 315 | 0,1 |
| 30027 | 43 | 1-11/16" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 205 | 100 | 135 | 270 | 305 | 0,1 |
| 30028 | 44 | 1-3/4" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 195 | 95 | 130 | 250 | 295 | 0,1 |
| 30029 | 46 | 1-13/16" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 190 | 95 | 125 | 250 | 285 | 0,1 |
| 30030 | 48 | 1-7/8" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 180 | 90 | 120 | 240 | 270 | 0,1 |
| 30032 | 51 | 2 " | M-42 | 4/6 | 2L, 3L, 6L, 7L | 170 | 85 | 115 | 230 | 255 | 0,1 |
| 30033 | 52 | 2-1/16" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 165 | 80 | 110 | 220 | 245 | 0,1 |
| 30034 | 54 | 2-1/8" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 160 | 80 | 105 | 210 | 240 | 0,2 |
| 1816241 | 56 | - | M-42 | 4/6 | 2L, 3L, 6L, 7L | 285 | 145 | 190 | 190 | 425 | 0,2 |
| 30036 | 57 | 2-1/4" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 285 | 145 | 190 | 380 | 425 | 0,2 |
| 30038 | 60 | 2-3/8" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 150 | 75 | 100 | 200 | 225 | 0,2 |
| 1816242 | 62 | - | M-42 | 4/6 | 2L, 3L, 6L, 7L | 140 | 70 | 95 | 190 | 220 | 0,2 |
| 30040 | 64 | 2-1/2" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 135 | 65 | 90 | 180 | 205 | 0,2 |
| 30041 | 65 | 2-9/16" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 135 | 65 | 90 | 180 | 205 | 0,2 |
| 30042 | 67 | 2-5/8" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 130 | 65 | 85 | 175 | 200 | 0,2 |
| 30043 | 68 | 2-11/16" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 130 | 65 | 85 | 170 | 195 | 0,2 |
| 30044 | 70 | 2-3/4" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 125 | 60 | 80 | 160 | 185 | 0,2 |
| 30046 | 73 | 2-7/8" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 125 | 60 | 80 | 160 | 185 | 0,3 |
| 30048 | 76 | 3 | M-42 | 4/6 | 2L, 3L, 6L, 7L | 120 | 60 | 80 | 160 | 180 | 0,3 |
| 30050 | 79 | $31 / 8$ | M-42 | 4/6 | 2L, 3L, 6L, 7L | 115 | 55 | 75 | 150 | 170 | 0,3 |
| 30052 | 83 | 3-1/4" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 110 | 55 | 70 | 140 | 165 | 0,3 |
| 30054 | 86 | 3-3/8" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 105 | 50 | 70 | 140 | 155 | 0,3 |
| 30056 | 89 | 3-1/2" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 100 | 50 | 65 | 130 | 150 | 0,4 |
| 30058 | 92 | 3-5/8" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 95 | 45 | 65 | 130 | 145 | 0,4 |
| 30060 | 95 | 3-3/4" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 95 | 45 | 60 | 120 | 140 | 0,4 |
| 30062 | 98 | 3-7/8" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 90 | 45 | 60 | 120 | 135 | 0,4 |
| 30064 | 102 | 4 | M-42 | 4/6 | 2L, 3L, 6L, 7L | 85 | 40 | 55 | 110 | 130 | 0,4 |
| 30066 | 105 | 4-1/8" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 85 | 40 | 55 | 110 | 130 | 0,5 |
| 30068 | 108 | 4-1/4" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 80 | 40 | 55 | 110 | 120 | 0,5 |
| 30070 | 111 | 4-3/8" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 80 | 40 | 55 | 110 | 120 | 0,5 |
| 30072 | 114 | 4-1/2" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 75 | 35 | 50 | 100 | 105 | 0,5 |
| 30074 | 118 | 4-5/8" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 75 | 35 | 50 | 100 | 105 | 0,6 |
| 30076 | 121 | 4-3/4" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 75 | 35 | 50 | 100 | 105 | 0,6 |
| 30080 | 127 | 5 | M-42 | 4/6 | 2L, 3L, 6L, 7L | 70 | 35 | 45 | 90 | 95 | 0,7 |
| 1816243 | 133 | 5-1/4" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 70 | 35 | 45 | 90 | 95 | 0,7 |
| 30088 | 140 | 5-1/2" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 105 | 50 | 70 | 140 | 155 | 0,8 |
| 30096 | 152 | 6 " | M-42 | 4/6 | 2L, 3L, 6L, 7L | 65 | 30 | 40 | 85 | 90 | 0,9 |
| 3106 | 168 | 6-5/8" | M-42 | 4/6 | 2L, 3L, 6L, 7L | 65 | 30 | 40 | 85 | 90 | 0,9 |
| 3112 | 177 | 7 " | M-42 | 4/6 | 2L, 3L, 6L, 7L | 65 | 30 | 40 | 85 | 90 | 1,3 |
| 3132 | 210 | $81 / 4 "$ | M-42 | 4/6 | 2L, 3L, 6L, 7L | 65 | 30 | 40 | 85 | 90 | 1,8 |

## CARBIDE TIPPED HOLE SAWS CUTS SELECTION GUIDE

EXTREMELY VERSATILE
Aggressive tooth design drills through wood, steel, stainless, cast iron, fiber cement \& plaster
They are supplied in blisters.


Patented SPEED SLOT® ${ }^{\circledR}$
Staircase design has multiple leverage points for easy plug ejection.
The tab on the side allows you to insert a screwdriver.
 Hole saw


Greater depth of cut. Instead of the conventional 38 mm , almost 50 mm of cutting height.


It is essential to use a pilot drill with a carbide tip.



Multi-material carbide tipped hole saws.
High performance carbide plates are welded to the cutting edge for longer durability.
50 mm depth of cut.
Applications: concrete blocks, tiles, fibre cement, bricks, non-ferrous materials, stainless steel, cast iron and even wood with nails.

Bullet points

- Staggered side groove design for fast and easy chip ejection.
- Larger and sharper teeth evacuate more swarf for faster cutting.
- Side tab allows insertion of a screwdriver.

| Ref. | $\varnothing$ | Diameter inches | Standard arbor | RPM ALUM | RPM STAINLESS STEEL | RPM FIBERGLASS | RPM CERAMIC | RPM STEEL | $\Delta$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LXAH31116 | 17 | 11/16" | 1L , 4L, 5L | 1800 | 690 | 270 | 550 | 240 | 0,1 |
| LXAH334 | 19 | $3 / 4$ " | 1L , 4L, 5L | 1700 | 640 | 250 | 500 | 210 | 0,1 |
| LXAH378 | 22 | 7/8" | 1L , 4L, 5L | 1500 | 550 | 210 | 430 | 180 | 0,1 |
| LXAH31 | 25 | $1 "$ | 1L, 4L, 5L | 1300 | 480 | 190 | 370 | 150 | 0,1 |
| LXAH3118 | 29 | $11 / 8 "$ | 1L, 4L, 5L | 1100 | 420 | 170 | 330 | 140 | 0,1 |
| LXAH3114 | 32 | $11 / 4 "$ | 2L, 3L 6L | 1000 | 380 | 160 | 300 | 130 | 0,1 |
| LXAH3138 | 35 | $13 / 8$ " | 2L, 3L 6L | 900 | 350 | 140 | 270 | 110 | 0,1 |
| LXAH3112 | 38 | 1 1/2" | 2L, 3L, 6L, 7L | 900 | 320 | 120 | 250 | 100 | 0,1 |
| LXAH3158 | 41 | $15 / 8$ " | 2L, 3L, 6L, 7L | 700 | 290 | 110 | 230 | 90 | 0,1 |
| LXAH3134 | 44 | $13 / 4$ " | 2L, 3L, 6L, 7L | 700 | 270 | 110 | 210 | 90 | 0,1 |
| LXAH32 | 51 | $2 "$ | 2L, 3L, 6L, 7L | 600 | 240 | 90 | 190 | 80 | 0,1 |
| LXAH3218 | 54 | $21 / 8 "$ | 2L, 3L, 6L, 7L | 600 | 220 | 90 | 180 | 70 | 0,1 |
| LXAH3214 | 57 | $21 / 4 "$ | 2L, 3L, 6L, 7L | 600 | 210 | 80 | 170 | 70 | 0,2 |
| LXAH3238 | 60 | $23 / 8$ " | 2L, 3L, 6L, 7L | 600 | 200 | 80 | 160 | 70 | 0,2 |
| LXAH3212 | 64 | 2 1/2" | 2L, 3L, 6L, 7L | 500 | 190 | 70 | 150 | 60 | 0,2 |
| LXAH32916 | 65 | $29 / 16$ " | 2L, 3L, 6L, 7L | 500 | 190 | 70 | 140 | 60 | 0,2 |
| LXAH3258 | 67 | $25 / 8$ " | 2L, 3L, 6L, 7L | 500 | 180 | 70 | 130 | 60 | 0,2 |
| LXAH321116 | 68 | 2 11/16" | 2L, 3L, 6L, 7L | 500 | 180 | 60 | 120 | 60 | 0,2 |
| LXAH3 | 76 | 3 " | 2L, 3L, 6L, 7L | 400 | 160 | 60 | 120 | 50 | 0,3 |
| LXAH3314 | 83 | $31 / 4 "$ | 2L, 3L, 6L, 7L | 400 | 150 | 60 | 110 | 50 | 0,3 |
| LXAH3338 | 86 | 3 3/8" | 2L, 3L, 6L, 7L | 400 | 140 | 60 | 110 | 50 | 0,3 |
| LXAH3312 | 89 | $31 / 2^{\prime \prime}$ | 2L, 3L, 6L, 7L | 400 | 140 | 50 | 110 | 50 | 0,3 |
| LXAH3358 | 92 | 3 5/8" | 2L, 3L, 6L, 7L | 400 | 130 | 50 | 100 | 40 | 0,4 |
| LXAH3334 | 95 | 3 3/4" | 2L, 3L, 6L, 7L | 300 | 130 | 50 | 110 | 40 | 0,4 |
| LXAH34 | 102 | 4" | 2L, 3L, 6L, 7L | 300 | 120 | 50 | 100 | 40 | 0,4 |
| LXAH3418 | 105 | $41 / 8$ " | 2L, 3L, 6L, 7L | 300 | 120 | 50 | 90 | 40 | 0,5 |
| LXAH3414 | 108 | $41 / 4$ " | 2L, 3L, 6L, 7L | 300 | 110 | 50 | 90 | 40 | 0,5 |
| LXAH3412 | 114 | $41 / 2^{\prime \prime}$ | 2L, 3L, 6L, 7L | 300 | 110 | 40 | 80 | 30 | 0,5 |
| LXAH3434 | 121 | $43 / 4$ " | 2L, 3L, 6L, 7L | 300 | 100 | 40 | 80 | 30 | 0,6 |
| LXAH35 | 127 | 5" | 2L, 3L, 6L, 7L | 200 | 100 | 40 | 80 | 30 | 0,7 |
| LXAH3512 | 140 | $51 / 2^{\prime \prime}$ | 2L, 3L, 6L, 7L | 200 | 100 | 40 | 70 | 30 | 0,8 |

[^0]Hole saws with brazed diamond cutting edge. It drills in less time than any other type of cutters.
Applications: tiles, granite, porcelain, cast iron and in general, materials with high MOHS hardness.
It is very important to check the instruction manual before use.
Bullet points

- The side holes facilitate the removal of scraps and shavings.



## DIAMOND HOLE SAWS CUTS SELECTION GUIDE

LONG DURATION
Durable Robust design for greater durability in tough applications.
FAT, EASY CUTTING
Low torque, little pressure required.

| WOOD | $\begin{aligned} & \text { NAILEMBEDDED } \\ & \text { WOOD } \end{aligned}$ | NONFRERROUS METAL | PLASTIC | METAL | STAINLESS STEEL | DRYWALL PLASTER | CEMENT | BRICK | TILE | PORCELAIN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |
| DIENTES CARBURO |  |  |  |  |  |  | DIAMOND ${ }^{\text {TM }}$ |  |  |  |
| BI-METAL |  |  |  |  |  |  | BI-METAL |  | $\begin{aligned} & \text { CARBIDE } \\ & \text { TEETH } \end{aligned}$ |  |

Easier plug removal.
Over-sized slot in hole saw for easy plug removal


Long Lasting.
Continuous, brazed edge lasts longer in tile and stone

The best container for the best content


Convenient storage for professional use.
All sets include arbor with pilot drills and a few spare bits.

## Bullet points

- Durability: durable and resistant construction against damage caused by falls.


## Standard spindles for hole saws.

Bullet points

- Extra durability: hardened carbon steel for extra strength.
- Self-acting: self-centering pilot bit for higher cutting incidence and less oscillation.

| Ref. | For hole saws | Hexagon | Stem type | $\Delta$ |
| ---: | :---: | :---: | :---: | :---: |
| $\mathbf{3 0 0 0 1}$ | from 9L to 19L | 13 | No regulation | 0,1 |
| $\mathbf{3 0 0 0 2}$ | from 20L to 132L | 13 | With regulation | 0,2 |
| $\mathbf{3 0 0 0 3}$ | from 20L to 132L | 13 | Solid | 0,2 |
| $\mathbf{3 0 0 0 4}$ | from 9L to 19L | 6 | No regulation | 0,1 |
| $\mathbf{3 0 0 0 5}$ | from 9L to 19L | 10 | No regulation | 0,1 |
| $\mathbf{3 0 0 0 6}$ | from 20L to 132L | 10 | With regulation | 0,2 |

Spindle with scrap ejector for hole saws.
Bullet points

- Extra durability: hardened carbon steel for extra strength.

- Self-acting: self-centering pilot bit for higher cutting incidence and less oscillation.

| Ref. | For hole saws | Hexagon | Stem type | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: |
| 30007 | from 20L to 132L | 10 | With <br> regulation | 0,4 |

Quick-change spindles for hole saws.
Bullet points

- Extraction and clamping by means of non-threaded pins.
- Prevents the core bit from locking in the spindle.


| Ref. | For hole saws | Hexagon | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: |
| $\mathbf{1 7 6 8 8 1 1}$ | from 20L to 132L | 16 | 0,3 |
| $\mathbf{1 7 6 8 8 1 2}$ | from 9L to 19L | 13 | 0,2 |
| $\mathbf{1 7 6 8 8 1 3}$ | from 20L to 132L | 6 L | 0,2 |

Extensions for drilling far away. Ideal for use in drill presses.
Bullet points


- Increased durability due to hardened carbon steel.

| Ref. | Description | Arbor | $\Delta$ |
| ---: | :---: | :---: | :---: |
| $\mathbf{3 0 8 4 3}$ | Extension 250 mm | 1L-2L-3L | 0,3 |
| $\mathbf{3 0 8 4 7}$ | Extension 300 mm | 1L-2L-3L | 0,4 |
| $\mathbf{3 0 8 4 8}$ | Extension 450 mm | 1L-2L-3L | 0,5 |

Replacement drill bits for arbor with pilot.
All drill bits are 6.4 mm (1/4") diameter.

## $\xrightarrow{3}$

## 0

| Ref. | Material | Snap back | Solid hex | $\Delta$ |
| ---: | :---: | :---: | :---: | :---: |
| LXAH9314CTPB | HARD METAL | 2L, 5L, 6L | 1L, 2L, 3L, 4L, <br> $5 \mathrm{~L}, 6 \mathrm{~L}, 7 \mathrm{~L}$ | 0,1 |
| LXAH9414CTPB | HARD METAL | 2L, 5L, 6L | $1 \mathrm{~L}, 2 \mathrm{~L}, 3 \mathrm{~L}, 4 \mathrm{~L}$, <br> $5 \mathrm{~L}, 6 \mathrm{~L}, 7 \mathrm{~L}$ | 0,1 |
| LXAH99314PB | HSS | 2L, 5L, 6L | $1 \mathrm{~L}, 2 \mathrm{~L}, 3 \mathrm{~L}, 4 \mathrm{~L}$, <br> $5 \mathrm{~L}, 6 \mathrm{~L}, 7 \mathrm{~L}$ | 0,1 |
| 30297 | HARD METAL | 2L, 5L, 6L | $1 \mathrm{~L}, 4 \mathrm{~L}$ | 0,1 |



New alternative to abrasive cutting discs.
Advanced diamond technology offers long life to optimise efficiency and reduce costs while cutting materials.

## Bullet points

- The metal core prevents the disc's breaking while working.
- No dust is released when working. Perfect for clean enviroments.
- No loss of diameter when working

| Ref. | $\varnothing$ | Thickness <br> $(\mathrm{mm})$ | Hole <br> diameter | RPM Max | $\sigma$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2 0 3 0 8 6 3}$ | 75 | 1,3 | 9,52 | 20300 | 0,1 |
| $\mathbf{2 0 3 0 8 6 4}$ | 105 | 1,3 | 15,88 | 15300 | 0,1 |
| $\mathbf{2 0 3 0 8 6 5}$ | 115 | 1,3 | 22,23 | 13300 | 0,1 |
| $\mathbf{2 0 3 0 8 6 6}$ | 125 | 1,3 | 22,23 | 12250 | 0,1 |
| $\mathbf{2 0 3 0 8 6 7}$ | 150 | 1,3 | 22,23 | 10200 | 0,2 |
| $\mathbf{2 0 3 0 8 6 8}$ | 178 | $\mathbf{1 , 5}$ | 22,23 | 8500 | 0,3 |
| $\mathbf{2 0 3 0 8 6 9}$ | 200 | $\mathbf{1 , 5}$ | 22,23 | 7650 | 0,3 |
| $\mathbf{2 0 3 0 8 7 0}$ | 230 | 2,1 | 22,23 | 6650 | 0,6 |
| $\mathbf{2 0 3 0 9 4 1}$ | 300 | 3,3 | 25,4 | 5200 | 1,5 |
| $\mathbf{2 0 3 0 9 4 2}$ | 357 | 3,3 | 25,4 | 4400 | 1,5 |
| $\mathbf{2 0 3 0 9 4 3}$ | 300 | 3,8 | 25,4 | 6400 | 1,5 |
| $\mathbf{2 0 3 0 9 4 4}$ | 357 | 3,8 | 25,4 | 5500 | 2,0 |



It has an additional layer of diamond welded on the top and bottom of the edge that allows not only cutting, but also polishing and deburring.

## Bullet points

- The metal core prevents the disc from breaking while working.
- No dust is released when working. Perfect for clean enviroments.
- No loss of diameter when working.


| Ref. | $\varnothing$ | Thickness <br> $(\mathrm{mm})$ | Hole diameter | RPM Max | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| 2044468 | 115 | 2 | 22.23 | 13300 | 0,1 |
| 2044469 | 125 | 2 | 22.23 | 12250 | 0,1 |



Meltalmax cutting disc display.
Advanced diamond technology offers long life to help you optimise efficiency and reduce costs when cutting materials.


## Bullet points

- The metal core prevents the disc from breaking while working.
- No dust is released when working. Perfect for clean enviroments.
- No loss of diameter when working.

| Ref. | Contains | Contains | Contains | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: |
| 96102 | 10 disks of 115 <br> $(2030865)$ | 10 disks of 125 <br> $(2030866)$ | 5 disks of 230 <br> $(2030870)$ | 0,6 |




Curved saw blade for wood.
Curved design for superior performance in all applications.
Bullet points


- T2TM technology and titanium coating increase the life of the blades.
- Titanium coating also increases cutting speed.


## 



Curved saw blade for metals.
Curved design for a superior performance in all applications.
Bullet points

- T2TM technology and titanium coating increase the life of the blades.
- Titanium coating also increases cutting speed.

| Ref. | Length x <br> Width | Thickness <br> $(\mathrm{mm})$ | Teeth per inch | Blister units | $\Delta \boldsymbol{\Delta}$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| 21064610GR | $150 \times 19$ | 0,9 | 10 | 5 | 0,1 |
| 21065810GR | $200 \times 19$ | 1,3 | 10 | 5 | 0,2 |
| 21066414GR | $100 \times 19$ | 0,9 | 14 | 5 | 0,1 |
| 21067614GR | $150 \times 19$ | 0,9 | 14 | 5 | 0,1 |
| 21068418GR | $100 \times 19$ | 0,9 | 18 | 5 | 0,1 |
| 21069618GR | $150 \times 19$ | 0,9 | 18 | 5 | 0,1 |
| 21070818GR | $200 \times 19$ | 0,9 | 18 | 5 | 0,2 |
| 21071424GR | $100 \times 19$ | 0,9 | 24 | 5 | 0,1 |
| 21072624GR | $150 \times 19$ | 0,9 | 24 | 5 | 0,1 |
| 21073824GR | $200 \times 19$ | 0,9 | 24 | 5 | 0,1 |

Curved saw blade for nailing timber, demolition and pallet cutting. Curved design for superior performance in all applications.

## Bullet points

- T2TM technology and titanium coating increase the life of the blades.
- Titanium coating also increases cutting speed.


| Ref. | Length $x$ <br> Width | Thickness <br> $(\mathrm{mm})$ | Teeth per inch | Blister units | $\Delta \boldsymbol{\Delta}$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| 210886066GR | $150 \times 25$ | 1,6 | 6 | 5 | 0,2 |
| 21089960GR | $225 \times 25$ | 1,6 | 10 | 5 | 0,2 |
| 21090966GR | $225 \times 25$ | 1,6 | 6 | 5 | 0,2 |
| 21091106GR | $300 \times 25$ | 1,6 | 6 | 5 | 0,3 |



Curved saw blade for large cross-section metals and heavy duty applications.
Curved design for superior performance in all applications.
Bullet points

- T2TM technology and titanium coating increase the life of the blades.
- Titanium coating also increases cutting speed.

| Ref. | Length x <br> Width | Thickness <br> $(\mathrm{mm})$ | Teeth per inch | Blister units | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| 210926108GR | $150 \times 25$ | 1,1 | 8 | 5 | 0,2 |
| 210936110GR | $150 \times 25$ | 1,1 | 10 | 5 | 0,2 |
| 210946114GR | $150 \times 25$ | 0,9 | 14 | 5 | 0,2 |
| 210956118GR | $150 \times 25$ | 0,9 | 18 | 5 | 0,2 |
| 210969108GR | $225 \times 25$ | 1,1 | 8 | 5 | 0,3 |
| 210979110GR | $225 \times 25$ | 1,1 | 10 | 5 | 0,3 |
| 210989114GR | $225 \times 25$ | 0,9 | 14 | 5 | 0,3 |
| 210999118GR | $225 \times 25$ | 0,9 | 18 | 5 | 0,3 |
| 2110012110GR | $300 \times 25$ | 1,1 | 10 | 5 | 0,4 |
| $\mathbf{2 1 1 0 1 1 2 1 1 4 G R}$ | $300 \times 25$ | 1,1 | 14 | 5 | 0,4 |
| $\mathbf{2 1 5 1 0 1 1 8 R}$ | $300 \times 19$ | 0,9 | 18 | 5 | 0,1 |

Saw blade for large cutings in metals.
Bullet points

- Power blast technology (intense blasting of cutting edges):
increases blade life and reduces breakage.
- Wider spine allows for straighter cuts on large diameter materials.


| Ref. | Length x Width | Thickness (mm) | Teeth per inch | Blister units | Maximum cutting thickness | $\Delta$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 201706110R | 150x25 | 1,1 | 10 | 5 | Profiles and rods $5-13 \mathrm{~mm}$ thickness | 0,2 |
| 201726114R | $150 \times 25$ | 0,9 | 14 | 5 | Profiles and rods $2-10 \mathrm{~mm}$ | 0,2 |
| 201746118R | $150 \times 25$ | 0,9 | 18 | 5 | Profiles and rods 2-6mm thickness | 0,2 |
| 201769110R | $225 \times 25$ | 1,1 | 10 | 5 | Profiles and rods $5-13 \mathrm{~mm}$ thickness | 0,3 |
| 201789114R | $225 \times 25$ | 0,9 | 14 | 5 | Profiles and rods $2-10 \mathrm{~mm}$ | 0,3 |
| 201809118R | $225 \times 25$ | 0,9 | 18 | 5 | Profiles and rods 2-6mm thickness | 0,3 |
| 2018212110R | $300 \times 25$ | 1,1 | 10 | 5 | Profiles and rods $5-13 \mathrm{~mm}$ thickness | 0,4 |
| 2018412114 R | $300 \times 25$ | 1,1 | 14 | 5 | Profiles and rods $2-10 \mathrm{~mm}$ | 0,4 |
| 2019012118R | $300 \times 25$ | 1,1 | 18 | 5 | Profiles and rods $2-6 \mathrm{~mm}$ thickness | 0,4 |



Standard bi-metal saw blades for cutting wood, metal and plastic.
Bullet points

- T2TM technology: this type of serrated doubles blade life.

- Its design minimises friction and heat and improbes cutting performance.

| Ref. | Length $x$ <br> Width | Thickness <br> $(\mathrm{mm})$ | Teeth per <br> inch | Application | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| 1769340B | $150 \times 19$ | 0.9 | 14 | Thin metal | 0,2 |
| 1769341B | $200 \times 19$ | 0.9 | 14 | Thin metal | 0,2 |
| 20552418R | $100 \times 19$ | 0,9 | 18 | Thick pipes | 0,1 |
| 20556676RC | $150 \times 11$ | 1,3 | 6 | Wooden contours | 0,1 |
| 20562610R | $150 \times 19$ | 0,9 | 10 | Plastic-aluminum | 0,1 |
| 20564614R | $150 \times 19$ | 0,9 | 14 | Thick metal-rubber | 0,1 |
| 20566618R | $150 \times 19$ | 0,9 | 18 | Thick pipes | 0,1 |
| 20568624R | $150 \times 19$ | 0,9 | 24 | Pipes <18mm | 0,1 |
| 20570636RP | $150 \times 19$ | 1,3 | 6 | Plaster | 0,1 |
| 20572656R | $150 \times 19$ | 1,3 | 6 | Wood with nails | 0,1 |
| 20575634R | $150 \times 19$ | 1,3 | 4 | Wood | 0,1 |
| 20578818R | $200 \times 19$ | 0,9 | 18 | Thick pipes | 0,2 |
| 20580810R | $200 \times 19$ | 0,9 | 10 | Plastic-aluminum | 0,2 |
| 20582956R | $225 \times 19$ | 1,3 | 6 | Wood with nails | 0,2 |
| 20583110R | $300 \times 19$ | 1,3 | $10 / 14$ | Plastic-aluminum | 0,3 |
| 20585156R | $300 \times 19$ | 1,3 | 6 | Wood with nails | 0,3 |
| 20577850R | $200 \times 19$ | 1,3 | $10 / 14$ | Wood with nails | 0,1 |
| 20592650R | $150 \times 19$ | 1,3 | $10 / 14$ | Wood with nails | 0,2 |
| 20554424R | $100 \times 20$ | 0,9 | 24 | Thin metal | 0,1 |

Saw blade for non-metallic cutting materials. Cuts tough materials that resist chipping, including ceramics, pipes, artificial stone, marble, etc.


Bullet points

- Carbide grain particles provide a fast and smooth cut.

| Ref. | Length x <br> Width | Thickness <br> $(\mathrm{mm})$ | Teeth per inch | Blister units | $\boldsymbol{\nabla}$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2 0 5 7 6 8 0 0 R G}$ | $200 \times 19$ | 1 | Hard metal | 2 | 0,1 |



LENOX
-

Demolition saw blades: designed to cut easily through a wide variety of materials such as structural steel, woods and pipes.

Bullet points

- T2TM technology: this type of serrated doubles the life of the blades.



Technology

| Ref. | Length $x$ <br> Width | Thickness <br> $(\mathrm{mm})$ | Teeth per inch | Blister units | $\Delta$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| 20597960R | $225 \times 25$ | 1,6 | 10 | 2 | 0,1 |
| 20598966R | $225 \times 25$ | 1,6 | 6 | 2 | 0,1 |

Saw blades for cutting and restoration of pallets.
Bullet points

- The special treatment increases performance and withstands impacts on nails, which maintains cutting speed.
- Patented tooth design and rounded tip increase blade life and make it easier to get into tight spaces.


| Ref. | Length $x$ <br> Width | Thickness <br> $(\mathrm{mm})$ | Teeth per inch | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: |
| $\mathbf{1 0 7 2 9}$ | $200 \times 19$ | 0,9 | 10 | 0,1 |
| $\mathbf{1 0 7 3 0}$ | $250 \times 19$ | 0,9 | 10 | 0,1 |

## Selection according

to teeth per inch


Choice of leaf
length



Hacksaw for 300 mm blade.
Design preferred by professionals.
Withstands tensions up to $1800 \mathrm{Kg} / \mathrm{cm} 2$.
Aluminium frame and handle.

| Ref. | Blade | Tension | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: |
| 5310 | 300 mm | $1800 \mathrm{Kg} / \mathrm{cm} 2$ | 1,2 |



High tension hacksaw for straight and fast cutting with comfort grip.

Bullet points


- Reinforced handles for comfortable and safe handling even in wet or cold environments.
- Compatible with any LENOX batten blade for use as a pull saw.
- Storage of up to 5 extra 12" / 300 mm blades in the tensioning handle.


| Ref. | Lenght | Tension | ® |
| ---: | :---: | :---: | :---: |
| HT50 | 300 mm | $3500 \mathrm{Kg} / \mathrm{cm} 2$ | 0,9 |



High tension hacksaw for fast, straight cuts. Quickly tensioned 12 turns.

Bullet points

- $45^{\circ}$ blade angle, ideal for flush cuts.
- Comfortable grip, rubber reinforced handle.

| Ref. | Tension | Blade length | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: |
| $\mathbf{8 8 3 0 0}$ | $1400 \mathrm{Kg} / \mathrm{cm} 2$ | 300 mm | 0,6 |



Bi-metal hacksaw blades.
Bullet points

- T2TM technology: this type of serration doubles the life of the blades.
- Breakage resistance: bi-metal construction with $5 \%$ cobalt allows blades to bend and flex without breaking and achieves exceptional cutting performance.
- Box of 100 units.


| Ref. | Length $x$ <br> Width | Teeth per inch | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: |
| 20116218HE | $300 \times 13$ | 18 | 0,1 |
| 20117224HE | $300 \times 13$ | 24 | 0,1 |
| 20118232HE | $300 \times 13$ | 32 | 0,1 |



Breakage resistance: bi-metal construction with 5\% cobalt allows blades to bend and flex without breaking and achieves exceptional cutting performance.
$\mathrm{M}-42$ high speed steel cutting edge. Tooth hardness HRc 64-66.

| Ref. | Length $x$ <br> Width | Teeth per inch | Units | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: |
| 20143V214HE | $300 \times 13$ | 14 | Blister 10 | 0,2 |
| 20144V218HE | $300 \times 13$ | 18 | Blister 10 | 0,2 |
| 20145V224HE | $300 \times 13$ | 24 | Blister 10 | 0,2 |
| 20146V232HE | $300 \times 13$ | 32 | Blister 10 | 0,2 |



Tri-fold saw designed to cut different materials. Compatible with any other standard saw blade.

Bullet points


- Comfortable handle for comfortable grip.
- Push button mechanism allows the blade to be fixed in 3 positions.

| Ref. | Blade type | $\Delta \Delta$ |
| :---: | :---: | :---: |
| 20997 | 2 types: for <br> plasterboard and <br> multi-material | 0,3 |

Plastic pipe saw.
Bullet points

- Easy cutting of plastic pipes: unique serrated geometry for pull cutting and not in the other direction for safety reasons.
- Comfortable handle.
- Easy blade attachment on the underside of the handle for flush cutting applications.



## SPARE BLADE FOR METAL CUTTING HACKSAW

Replacement blade for hacksaw.
Bullet points

- Easy attachment of the blade to the bottom of the handle for flush cutting applications.


## LENOXG

$\qquad$

| Ref. | Blade | Cutting <br> materials | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: |
| 20981 | 450 | PVC | 0,2 |



Jig saw blades designed for wood, metal and plastic applications.
Bullet points

- Wide and thick teeth which provide durability while cutting metal and
 wood with inlaid nails.
- Pronounced serration maintains speed while cutting wood.


Optimised jig saw blades for metal cutting applications.
Bullet points

- Thanks to the T2TM technology fast and efficient cutting in a variety of metal cutting applications is provided.
- Resistant to breakage.

| Ref. | Length $x$ <br> Width | Thickness <br> $(\mathrm{mm})$ | Teeth per inch | Blister units | Maximum cutting thickness | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1991559B | $92 \times 9,5$ | 0,9 | 14 | 3 | Sheet>2.4 until 6.4 mm | 0,1 |
| 1991565B | $92 \times 9,5$ | 0,9 | 18 | 3 | Sheet>1.6 until 6.4 mm | 0,1 |
| 1991571B | $92 \times 9,5$ | 0,9 | 24 | 3 | Until 3.2 mm | 0,1 |
| 1991577B | $92 \times 9,5$ | 0,9 | 32 | 3 | Until 1.6 mm | 0,1 |
| 1991580B | $133 \times 9,5$ | 0,9 | 14 | 3 | Sheet $>2.5 \mathrm{~mm}$ Tube $>76 \mathrm{~mm}$ | 0,1 |

Diamond edged jig saw blades.
Designed for granite, marble, porcelain and slate applications Blister pack of one.
Bullet points

## HARDTILE

- Diamond particles and alloy steel reinforcement provides high stability.

| Ref. | Length $x$ <br> Width | Thickness <br> $(\mathrm{mm})$ | Type | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: |
| 1991606 | $89 \times 9,8$ | 0,8 | Diamond | 0,1 |

Jigsaw blades designed for ceramic tile, fibreglass and brick applications.

Bullet points


- Steel core prevents breakage.

| Ref. | Length $x$ <br> Width | Thickness <br> $(\mathrm{mm})$ | Teeth per inch | Blister units | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| 1991608B | $89 \times 9,8$ | 0,8 | Carbide | 3 | 0,6 |

Jig saw blades designed for clean cuts in softwoods, hardwoods and chipboards.

Bullet points

- Ground teeth - cutting angle provides a clean and an abrasionresistant finish.
- Narrow profile facilitates cutting in curves.

| Ref. | Length $x$ <br> Width | Teeth per inch | Blister units | Application in wood | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| $1990703 B$ | $100 \times 8$ | 6 | 5 | Hard 9,5-44,5 | 0,1 |
| $1990848 B$ | $100 \times 8$ | 6 | 5 | Soft 9,5-4,5 | 0,2 |
| $1990961 B$ | $100 \times 8$ | 10 | 3 | Hard 4,8-31,8 | 0,1 |
| $1990965 B$ | $100 \times 8$ | 10 | 5 | Soft 4,8-31,8 | 0,2 |

Jigsaw blade for downward cuts in softwood, hardwood and chipboard Inverted cutting teeth.

Bullet points


- Reversed serrated cut in the downward motion leaving the top of the material very clean.
- Grinding teeth for a clean cut.

| Ref. | Length $x$ <br> Width | Thickness <br> $(\mathrm{mm})$ | Teeth per inch | Blister units | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| 1991385 | $100 \times 8$ | 1,5 | 10 | 5 | 0,1 |

## CUTTING BLADES FOR QUICK CUTS IN WOOD

Jig sawblades designed for fast and easy cutting of soft wood, hardwood and chipboard.

Bullet points

- Tooth design eliminates chips for faster cutting or grinding.

| Ref. | Length $x$ <br> Width | Teeth per inch | Blister units | Application in <br> wood | $\Delta$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| $1991477 B$ | $100 \times 6,4$ | 6 | 5 blades | $1,6-20 \mathrm{~mm}$ | 0,2 |

Jig saw blades designed for clean cutting of hardwoods and laminates.

## Bullet points

- Cut uphill and downhill.
- Clean cut on both sides of the material.

| Ref. | Length $x$ <br> Width | Teeth per inch | Blister units | Application in <br> wood | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| 1991611B | $89 \times 5,6$ | 20 | 3 blades | Soft 6-50mm | 0,1 |

For copper, aluminium and stainless steel tubes.
Very easy blade change.


With 4 rollers that fix the tube offering greater cutting smoothness.
Durable square metal guides.
With built-in scraper to deburr the tube.


| Ref. | Cut diameter | Cutting materials | $\sigma \Delta$ |
| ---: | :---: | :---: | :---: |
| $\mathbf{2 1 0 1 1}$ | $\mathbf{3}$ to $\mathbf{3 5}$ | Copper-Aluminum- <br> Stainless | 0,6 |
| $\mathbf{2 1 0 1 3}$ | 6 to 67 | Copper-Aluminum- <br> Stainless | 0,9 |



For cutting all types of plastic pipes: PVC, CPVC, PE, PB and flexible pipes.

Bullet points


- Can be used with one hand. Easy to open and close.
- Unique design holds the pipe in place during cutting with its stainless steel blade.

| Ref. | $\varnothing \max$ | Cutting material | $\sigma \Delta$ |
| ---: | :---: | :---: | :---: |
| R1 | 42 | PVC-PEX-Poly | 0,5 |
| R2 | 60 | PVC-PEX-Poly | 1,0 |

R2


TUBE CUTTERS BLADES

Spare blades for Lenox tube cutters.


| Ref. | For pipe <br> cutters | Material | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: |
| $\mathbf{1 0 5 0 7 5 3 3}$ | R1 | PVC | 0,1 |
| $\mathbf{1 0 5 0 7 5 3 4}$ | R2 | PVC | 0,1 |

CLEAN AND FLAWLESS ORIFICES

Stepped conical drill bit with 2 cutting edges
Main applications: aluminium, bodywork, electrical boxes, beams, sheet metal, stainless steel electrical boxes.

## Bullet points

- Tapered tip design for faster penetration and less oscillation.
- Vapour oxide coating increases durability.

| Ref. | $\varnothing$ | Steps | Stem type | $\varnothing$ |
| ---: | :---: | :---: | :---: | :---: |
| $\mathbf{3 0 8 8 2}$ | 12,5 to 25 | 9 | 3 sides | 0,1 |
| 30883 | 6 to 19 | 9 | Quick change | 0,1 |
| 30912 | 22 to 35 | 5 | 3 sides | 0,2 |
| 30960 | 4 to 12 | 9 | Quick change | 0,1 |
| 30961 | 14 to 24 | 7 | 3 flat sides | 0,1 |
| 30962 | 6 to 18 | 7 | Quick change | 0,1 |
| 30963 | 20 to 34 | 8 | Quick change | 0,2 |
| 30964 | 5 to 28,3 | 10 | 3 sides | 0,1 |



Break-resistant bi-metal blades for cutting with pneumatic saws.
Bullet points

- High-speed steel teeth provide a strong and long-lasting cutting edge.
- Bi-metal blades are flexible and break-resistant for increasing durability.

| Ref. | Length $x$ <br> Width | Thickness <br> $(\mathrm{mm})$ | Teeth per <br> inch | Blister units | $\sigma$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| 20427424T | $102 \times 13$ | 0,64 | 24 | 5 | 0,1 |
| 20428432T | $102 \times 13$ | 0,64 | 32 | 5 | 0,1 |



Cutting oil.
Extended tool ilfe. Water-soluble, so it cleans up with water Biodegradable and non toxic.


Bullet points

- Reduces cutting time by up to $50 \%$.
- Reduces heat and friction.

| Ref. | Capacity | $\Delta \Delta$ |
| ---: | :---: | :---: |
| $\mathbf{5 4 4 0 1}$ | 0,2 liters | 0,2 |



Complete Lenox display with all kinds of products from
our catalogue.

| Ref. | OD | Empty display |
| :---: | :---: | :---: |
| LX3 | 40,0 | 96052 |

## Composition

| Ref. | Description | U. |
| :---: | :---: | :---: |
| 20117224HE | 224HE blade 300x13 24D | 300 |
| 1991565B | BT318S jigsaw blade Bosch $75 \times 1018 \mathrm{D}$ | 24 |
| 1991571B | BT324S jigsaw blade Bosch $75 \times 10$ 10D | 12 |
| 1990965B | BT410S jigsaw blade Bosch $100 \times 8$ 10D | 24 |
| 1991580B | BT518S jigsaw blade Bosch $135 \times 10$ 18D | 24 |
| 1991366B | BT686S jigsaw blade Bosch $133 \times 9,5$ 10D | 24 |
| 88300 | Ligth weight hacksaw for blade 300 mm | 1 |
| HT50 | 10507542 - High tension hacksaw 300 mm | 1 |
| 20997 | 618636 - Trifold 2 blades | 1 |
| 20980 | PVC plastic pipe hacksaw + 450 mm blades | 1 |
| 30001 | 1 L arbor | 6 |
| 30002 | 2 L arbor | 6 |
| 1768812 | 5 L quick change arbor | 2 |
| 1768813 | 6 L quick change arbor | 2 |
| 30009 | 9L hole saw 9/16" 14 mm | 4 |
| 30010 | 10L hole saw $5 / 8$ " 16 mm | 4 |
| 30011 | 11L hole saw 11/16" 18 mm | 4 |
| 30012 | 12L hole saw $3 / 4$ " 19 mm | 4 |
| 30098 | HS hole saw 20 mm | 4 |
| 30013 | 13L hole saw 13/16" 21 mm | 4 |
| 30014 | 14L hole saw 7/8" 22 mm | 4 |
| 30015 | 15L hole saw 15/16" 24 mm | 4 |
| 30016 | 16L hole saw 1" 25 mm | 4 |
| 30017 | 17L hole saw 1" $1 / 1627 \mathrm{~mm}$ | 4 |
| 30018 | 18L hole saw 1" $1 / 829 \mathrm{~mm}$ | 4 |
| 30019 | 19L hole saw 1" $3 / 1630 \mathrm{~mm}$ | 4 |
| 30020 | 20 L hole saw 1" $1 / 432 \mathrm{~mm}$ | 3 |
| 30021 | 21L hole saw 1" $5 / 1633 \mathrm{~mm}$ | 3 |
| 30022 | 22L hole saw 1" $3 / 835 \mathrm{~mm}$ | 3 |
| 30023 | 23L hole saw 1" $7 / 1637 \mathrm{~mm}$ | 3 |
| 30024 | 24L hole saw 1" $1 / 238 \mathrm{~mm}$ | 3 |
| 30025 | 25L hole saw 1" 9/16 40 mm | 3 |
| 30026 | 26 L hole saw 1" $5 / 841 \mathrm{~mm}$ | 3 |
| 30027 | 27L hole saw 1" $11 / 1643 \mathrm{~mm}$ | 3 |
| 30028 | 28L hole saw 1" $3 / 445 \mathrm{~mm}$ | 3 |
| 30029 | 29L hole saw 1" $13 / 1646 \mathrm{~mm}$ | 3 |
| 30030 | 30 L hole saw 1" $7 / 848 \mathrm{~mm}$ | 3 |
| 30032 | 32L hole saw 2" 51 mm | 3 |
| 30033 | 33L hole saw 2" 1/16 52 mm | 3 |



Small table-top display of hole saws and arbor with pilot drills from our catalogue.

| Ref. | DD | Empty display |
| :---: | :---: | :---: |
| LX4 | 470,0 | 96100 |

## Composition

| Ref. | Description | u. |
| :---: | :---: | :---: |
| 30009 | 9L hole saw 9/16" 14 mm | 2 |
| 30010 | 10L hole saw 5/8" 16 mm | 2 |
| 30011 | 11L hole saw 11/16" 17 mm | 2 |
| 30012 | 12L hole saw 3/4" 19 mm | 2 |
| 30098 | HS hole saw 20 mm | 2 |
| 30013 | 13L hole saw 13/16" 21 mm | 2 |
| 30014 | 14L hole saw 7/8" 22 mm | 2 |
| 30015 | 15L hole saw 15/16" 24 mm | 2 |
| 30016 | 16L hole saw 1" 25 mm | 2 |
| 30017 | 17L hole saw 1" 1/16 27 mm | 2 |
| 30018 | 18L hole saw 1" $1 / 829 \mathrm{~mm}$ | 2 |
| 30019 | 19L hole saw 1" $3 / 1630 \mathrm{~mm}$ | 2 |
| 30020 | 20 L hole saw 1" $1 / 432 \mathrm{~mm}$ | 2 |
| 30021 | 21L hole saw 1" $5 / 1633 \mathrm{~mm}$ | 2 |
| 30022 | 22L hole saw 1" $3 / 835 \mathrm{~mm}$ | 1 |
| 30023 | 23L hole saw 1" $7 / 1637 \mathrm{~mm}$ | 1 |
| 30024 | 24L hole saw 1" $1 / 238 \mathrm{~mm}$ | 1 |
| 30025 | 25L hole saw 1"9/16 40 mm | 1 |
| 30027 | 27L hole saw 1" 11/16 43 mm | 1 |
| 30028 | 28 L hole saw 1" $3 / 444 \mathrm{~mm}$ | 1 |
| 30029 | 29L hole saw 1" $13 / 1646 \mathrm{~mm}$ | 1 |
| 30030 | 30 L hole saw 1" $7 / 848 \mathrm{~mm}$ | 1 |
| 30032 | 32 L hole saw 2" 51 mm | 1 |
| 30034 | 34 L hole saw 2" 1/8 54 mm | 1 |
| 30038 | 38 L hole saw 2 " $3 / 860 \mathrm{~mm}$ | 1 |
| LAXH9914PB | 6.4 mm large pilot bit 83 mm | 5 |
| 1768812 | 5 L quick change arbor | 5 |
| 1768813 | 6 L quick change arbor | 5 |
| 1768813 | 6L árbol automático | 5 |


[^0]:    Indispensable to use pilot nozzle with carbide tip. The box is marked: CARBIDE TIPPED.

