FORZA®

PERFORADORES DE CHAPA REDONDOS SIN RECTIFICAR
CIRCULAR MECHANICAL PUNCHES WITHOUT GRIDING

Manual de instrucciones

Manual instructions

ES

EN

MI55VAL
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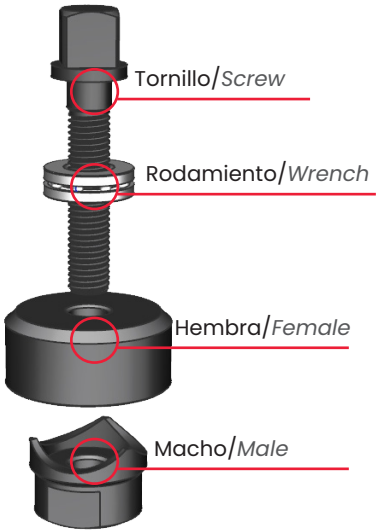
Características / *Characteristics*

Los perforadores mecánicos se componen de: / *Mechanical punches are made up of :*

Los perforadores estándar pueden cortar hasta 2 mm en chapas de acero y 1.5 mm*en chapas de acero inoxidable.* / *The standard punches can cut up to 2 mm in steel sheet plates and up to 1.5 in stainless steel sheet plates*.*

*Esta recomendación es general, hay gran variedad de aceros y aceros inoxidables. Es recomendable aceitar bien la chapa antes de cortar (por ejemplo usar Protoo Lube). En caso de duda, se recomienda utilizar la serie 56. / **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).



El tornillo / *The screw*

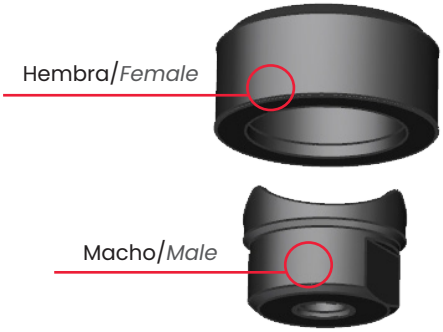
Los perforadores mecánicos de la serie 55VAL utilizan tornillos de muy alta resistencia 140kg/mm2. / *55Val series mechanical punches use screws of very high resistance 140kg/mm2.*

Asimismo, gracias al rodamiento que incluyen, el rendimiento del perforador aumenta en un 200%. Esto quiere decir que requiere la mitad de fuerza. / Likewise, thanks to the included bearing, the performance of the knock out punch increase in 200%. This means that the half strength is needed.

Perforadores de chapa redondos sin rectificar
Hydraulic circular punches without griding

Existe una gama completa de perforadores de chapa redondos de Ø13mm a Ø116mm. / *There is a complete range of circular knockout punches from Ø13mm to Ø116mm.*

Las piezas principales de los perforadores de chapa son el macho y la hembra. / *Male and die are the principal parts of the knock out punches.*



REF. VALLCIA	REF. CONDUIT	mm	Tornillo Screw	Peso Weight	Macho Male	Hembra Die
55VAL13		12,7 (1/2")	M8 x 1,25 540108R	0,1	54VAL1301	54VAL1302
55VAL14		14		0,1	54VAL1401	54VAL1402
55VAL15		15		0,1	54VAL1501	54VAL1502
55VAL16		16 (5/8")		0,1	54VAL1601	54VAL1602
55VAL18		18,4		0,1	54VAL1801	54VAL1802
55VAL19		19 (3/4")		0,1	54VAL1901	54VAL1902
54VAL20		20,4		0,1	54VAL2001	54VAL2002
55VAL22	55VAL050	22,5 (7/8")	M10 x 1,25 540110R	0,1	54VAL2201	54VAL2202
55VAL25		25 (1")		0,1	54VAL2501	54VAL2502
55VAL28	55VAL075	28,4 (1-3/32")	M12x1,5 540112R	0,2	54VAL2801	54VAL2802
55VAL30		30		0,3	54VAL3001	54VAL3002
55VAL32		32 (1-1/4")		0,3	54VAL3201	54VAL3202
55VAL34	55VAL100	34 (1-11/32")		0,4	54VAL3401	54VAL3402
55VAL35		35		0,4	54VAL3501	54VAL3502
55VAL37		37		0,4	54VAL3701	54VAL3702
55VAL38		38 (1-1/2")		0,4	54VAL3801	54VAL3802
55VAL40		40	M14 540114R	0,6	54VAL4001	54VAL4002
55VAL43	55VAL125	43 (1-11/16")		0,7	54VAL4301	54VAL4302
55VAL45		45		0,7	54VAL4501	54VAL4502
55VAL47		47		0,7	54VAL4701	54VAL4702
55VAL49		49 (1-15/16")		0,9	54VAL4901	54VAL4902
55VAL50	55VAL150	50 (1-31/32")		0,8	54VAL5001	54VAL5002
55VAL51		51 (2")		0,9	54VAL5101	54VAL5102
55VAL52		52		0,8	54VAL5201	54VAL5202
55VAL55		55	M20x80 540120R	1,5	54VAL5501	54VAL5502
55VAL60		60 (2-3/8")		1,6	54VAL6001	54VAL6002
55VAL62	55VAL200	62 (2-7/16")		1,7	54VAL6201	54VAL6202
55VAL63		63		1,6	54VAL6301	54VAL6302
55VAL76	55VAL250	76 (3")		2,2	54VAL7601	54VAL7602
55VAL89		89 (3-1/2")		3,2	54VAL8901	54VAL8902
55VAL91	55VAL300	91 (3-9/16")		3,3	54VAL9101	54VAL9102
55VAL102	55VAL350	102 (4")		3,8	54VAL10201	54VAL10202
55VAL116	55VAL400	116 (4-9/16")		4,5	54VAL11601	54VAL11602



NO ES RECOMENDABLE USAR LLAVES DE IMPACTO / ***IT IS NOT RECOMMENDED TO USE POWER TOOLS***

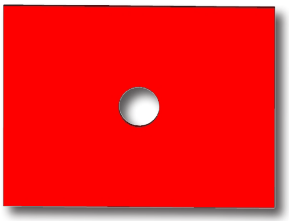
1- Mantenga las normas de higiene y seguridad en el trabajo. / *Keep the standards of hygiene and safety at work .*

2- Utilice los elementos de protección individual obligatorios. /*Always wear suitable personal protective equipment.*

1

Haga un agujero en la chapa un poco más grande que el diámetro del tornillo del perforador / *Make a hole in the sheet a little bit higher than the diameter of the drilling screw.*

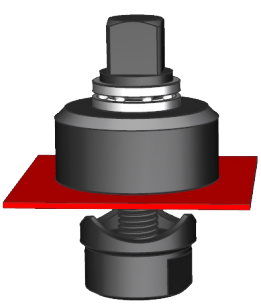
Si es un tornillo de 10 haga un agujero de Ø11,si el tornillo es de 20 puede hacer el agujero previo de Ø12 y luego agrandarlo con en perforador de Ø21. / *If the screw diameter is 10, make a hole o 11 , if the screw diameter is 20, a previous hole of Ø 12 can be made and then make it bigger by using the Ø21 knockout punch.*

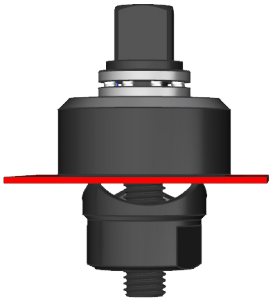


Si hace el agujero con una broca tenga cuidado de no dejar la rebarba como se ve en la figura anterior, si el agujero está muy justo y deja rebarba esta se introducirá en la rosca del tornillo. Al cortar no lo notara pero al intentar sacar el tornillo para soltar el perforador este se puede gripar. / *If the hole is made with a drill, be careful not to leave rough edges as seen in the previous figure, if the hole is very tight and it leaves rough edges it will be introduced in the thread of the screw. When cutting, you will not notice it, but when you try to remove the screw to release the knockout punch, it can be seized up.*

2

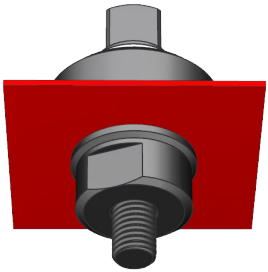
Coloque la chapa entre el macho y la hembra. Si el perforador y la chapa están bien engrasados el corte será mucho más fácil. Ajuste el tornillo con la mano hasta que el macho y la hembra toquen la chapa. / *Place the sheet between the male and the die. If the punch and the plate are well greased the cut will be much easier. Adjust the screw by hand until the male and the die touch the sheet plate.*

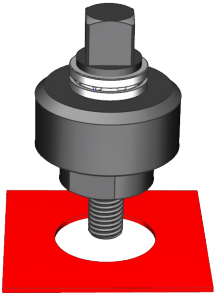




3

Gira el tornillo con una llave hasta que la superficie cortante del macho atraviese la chapa. Puede sacar el perforador completamente de la chapa cortada. / *Turn the screw with a wrench until the cutting surface of the male pierce the sheet plate. Then, the sheet plate can be completely remove from the knock-out punch.*





Desmonte el perforador desenroscando el tornillo (en este momento puede gripar el tornillo si había rebarba). Elimine el recorte de chapa del interior de la hembra. *Disassemble the knockout punch by loosen the screw. (In this moment, the screw can seize up if there is any burring) Remove the cut sheet plate from the internal part of the die.*

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