

Технические характеристики

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Россия (495)268-04-70	Киргизия (996)312-96-26-47	Казахстан (7172)727-132	

50 DRILL CHUCK ARBORS

No. 076

No. 077

ESP Espigas de sujecion FR Arbres Porte - forets DE Kegeldorn

Drill Chuck Arbors are used to mount a drill chuck or any other tool which has a female taper shank onto a machine such as a drilling machine which has a female taper shank socket in its workhead

Groz manufactures the following types of Arbors:

- Jacobs Taper Arbors
- Taper Shank Arbors - DIN 238

Manufactured from selected case hardened Hi-Tensile Steel (20 MnCr5/SAE 8620), all arbors are case hardened 54-58 HRC for increased resistance to wear

Precision grinding to very close tolerance with concentricity controlled to within 0.0004" (10 microns) and accurately gauged self locking tapers ensure close tolerance fit



JacobsTaperArbors

Taper Shank Arbors DIN238

Arbor Type	Shank Mount	Chuck Mount
Jacobs Taper Arbors	Morse Taper	Jacobs Taper
Taper Shank Arbors - DIN 238	Morse Taper	B Taper

Jacobs Taper Arbors

Cat. Nr.	Ordering Nr.	Morse Taper (MT)	Jacobs Taper (JT)
GAT/11	07600	1	1
GAT/12	07601	1	2
GAT/13	07602	1	3
GAT/133	07603	1	33
GAT/16	07604	1	6
GAT/21	07605	2	1
GAT/22	07606	2	2
u GAT/23	07607	2	3
GAT/24	07608	2	4
GAT/25	07609	2	5
u GAT/26	07610	2	6
GAT/233	07612	2	33
GAT/31	07613	3	1
GAT/32	07614	3	2
GAT/33	07615	3	3
GAT/34	07616	3	4
GAT/35	07617	3	5
u GAT/36	07618	3	6
GAT/333	07620	3	33
GAT/42	07621	4	2
GAT/43	07622	4	3
GAT/44	07623	4	4
GAT/45	07624	4	5
GAT/46	07625	4	6
GAT/52	07626	5	2
GAT/53	07627	5	3
GAT/54	07628	5	4

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Taper Shank Arbors - DIN 238

Cat. Nr.	Ordering Nr.	B Taper	Morse Taper (MT)
G/10/M1	07700	B10	1
G/10/M2	07701	B10	2
G/12/M1	07702	B12	1
G/12/M2	07703	B12	2
u G/12/M3	07704	B12	3
G/16/M1	07705	B16	1
u G/16/M2	07706	B16	2
u G/16/M3	07707	B16	3
G/16/M4	07708	B16	4
G/18/M1	07709	B18	1
G/18/M2	07710	B18	2
u G/18/M3	07711	B18	3
G/18/M4	07712	B18	4
G/22/M1	07713	B22	1
G/22/M2	07714	B22	2
G/22/M3	07715	B22	3
G/22/M4	07716	B22	4
G/24/M3	07717	B24	3
G/24/M4	07718	B24	4
G/24/M5	07719	B24	5

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51 REDUCTION SLEEVES (DRILL SLEEVES)

No. 084

No. 085

ESP Casquillos reductores cono Morse FR Douilles de réduction DE Reduzierehülse

Acc DIN 2185

Drill Sleeves are used to adapt smaller morse taper shank tools to larger machine spindles

The cocentricity and taper angles are precisely controlled which allows perfect locking and concentric movement to the tool held. These are available in two types:

A Grade - (Hardened and Ground)

Manufactured from case hardened Hi Tensile steel (20 MnCr5/SAE 8620), these are fully hardened and are ground on the inside and outside

Workshop Grade

Manufactured from carbon steel, these are ground on the outside and have a reamed finish on the inside

Permanent marking of size on the tang ensures convenience in use

A Grade
Hardened and Ground



Ordering Information

Cat. Nr.	Ordering Nr.	Cat. Nr.	Ordering Nr.	Morse Taper (MT)		Overall Length mm
				Outside	Inside	
A Grade		Workshop Grade				
u DSA/2-1	08420	DSW/2-1	08520	2	1	92
DSA/3-1	08421	DSW/3-1	08521	3	1	99
u DSA/3-2	08423	DSW/3-2	08523	3	2	112
DSA/4-1	08422	DSW/4-1	08522	4	1	124
DSA/4-2	08424	DSW/4-2	08524	4	2	124
u DSA/4-3	08426	DSW/4-3	08526	4	3	140
DSA/5-1	08432	DSW/5-1	08532	5	1	156
DSA/5-2	08425	DSW/5-2	08525	5	2	156
DSA/5-3	08427	DSW/5-3	08527	5	3	156
DSA/5-4	08429	DSW/5-4	08529	5	4	171
DSA/6-2	08433	DSW/6-2	08533	6	2	218
DSA/6-3	08428	DSW/6-3	08528	6	3	218
DSA/6-4	08430	DSW/6-4	08530	6	4	218
DSA/6-5	08431	DSW/6-5	08531	6	5	218

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Workshop Grade



Technical Information

Sleeve Type	Material	Surface finish of external Taper	Surface finish of internal Taper	Body Hardness	Tang Hardness
A Grade	Case Hardened Steel	Ground	Ground	54-58 HRC	54-58 HRC
Workshop Grade	Carbon Steel	Ground	Reamed	Unhard	54-58 HRC

52 DRILL DRIFT KEY

No. 086

ESP Extractor FR Chasse cône

DE Austreiber

Acc DIN 317

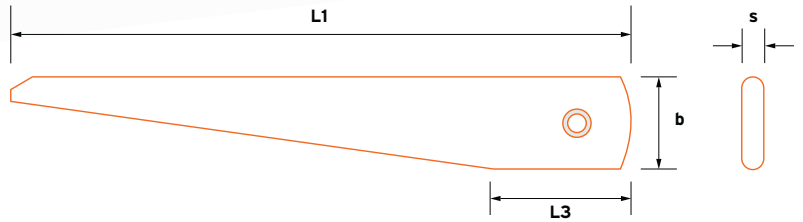
Drop forged from specially drawn medium carbon steel, these Drift keys are accurately hardened for increased resistance to wear

Used for conveniently removing taper shank drills and reamers from sleeves and sockets, these are blackened and have a premium shot blast finish with permanent marking of size for easy identification



Ordering Information

Cat. Nr.	Ordering Nr.	Fits following Morse Taper	L1	L3	b	s
			mm	mm	mm	mm
DK/0	08600	MT 0	90	18	12	3
u DK/1-2	08601	MT 1 & MT 2	140	25	20	5
u DK/0-3	08602	MT 3	190	40	25	7
DK/0-4	08603	MT 4	225	40	30	10
DK/5-6	08605	MT 5 & MT 6	265	56	35	15



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53 SLITTING SAW ARBORS

No. 088

ESP Soporte para sierra ranuradora

FR Arbre pour scie Á refendre

DE Dorn

Manufactured from quality steel, the Slitting Saw Arbors have a rust proof black oxide finish. These can be mounted easily onto a standard collet chuck or any other similar method of holding parallel shanks. A flat ground at the end – on SA/1 & SA/2 - ensures that the grub screw used to fix the shank in place does not raise burr and firmly locks the arbor in the fitting

The spring loaded mechanism readily accepts saw blades with varying diameters

Supplied complete with an allen key



Ordering Information

Cat. Nr.	Ordering Nr.	Shank Dia		Overall Length		Inside Hole Diameter
		Inch	mm	Inch	mm	
SA/1	08804	1/2	12.7	3	76	3/8" only
u SA/2	08805	1/2	12.7	2-7/16	62	1/2", 5/8", 3/4", 7/8" & 1"
SA/R8	08806	R8	—	5	125	1/2", 5/8", 3/4", 7/8" & 1"

u BESTSELLER | NEW SIZE

CA 45



Slitting Saw Arbor being used for a slitting operation on a job being worked upon on a milling machine

54 TWEEZERS

No. 037

ESP Pinzas FR Brucelles DE Pinzette

Tweezers are used for picking up small objects that are not easily handled by hands

Manufactured from Stainless steel. Tweezers make use of two levers connected at one fixed end called the fulcrum with pincers at the other

These are extensively used for servicing & repairs in electronics, computers, instruments, radio and other subminiature assemblies

Available in the following types:

Industrial Tweezers: High quality tweezers for toolmakers, repairmen, electronic assemblers and other professionals

Utility Tweezers: Used by mechanics, craftsmen and hobbyist's

Swiss Pattern Tweezers: Finest quality with hardened precision points these are especially useful for subminiature assemblies

Boley Pattern Tweezers: Fine quality tweezers for jewelers, watchmakers, instrument assemblers & craftspeople



NEW!

SS
stainless steel

Ordering Information

Cat.Nr	Ordering Nr	Length		Point type	Material
		Inch	mm		
Industrial Tweezers					
TWZ/401XX	03711	4-3/4	120	Strong sharp	Non Magnetic S.S
TWZ/403	03702	6-1/8	155	Blunt serrated	Magnetic S.S
TWZ/408	03701	4-3/4	120	Sharp Bent	Magnetic S.S
TWZ/410	03703	4-3/4	120	Narrow sharp	Magnetic S.S
TWZ/412	03705	6-1/2	165	Blunt point with slide lock	Magnetic S.S
TWZ/413	03704	4-3/4	120	Sharp	Magnetic S.S
Utility Tweezers					
TWZ/414	03706	6-1/2	165	Blunt serrated(self closing)	Magnetic S.S
TWZ/415	03708	7	176	Curved (teeth inside)	Magnetic S.S
TWZ/416	03713	4-9/16	116	Spade	Magnetic S.S
TWZ/417	03707	6-3/4	172	Long straight	Magnetic S.S
Swiss Pattern Tweezers					
TWZ/423-3C	03709	4-13/32	112	Very fine	Non Magnetic S.S
Boley Pattern Tweezers					
TWZ/401AA	03712	5	127	Strong sharp bevel	Non Magnetic S.S
Sets					
TWZ/ST-6	03720	6 pc Tweezer Set comprising one each of TWZ/401XX, TWZ/403, TWZ/412, TWZ/414, TWZ/415 & TWZ/417 packed to a vinyl pouch			

55 LATHE CENTERS - (DEAD CENTERS)

ESP Puntos Fijos FR Pointes fixes DE Feste Körnerspitzen

Acc DIN 806

Manufactured from high quality carbon steel, Dead Centers have a solid construction with no moving parts. Fully hardened for increased resistance to wear. Hardness of tip 60-63 HRC, these centers are accurately ground and have a TIR of $\pm 0.0001"$ (± 2.5 microns)

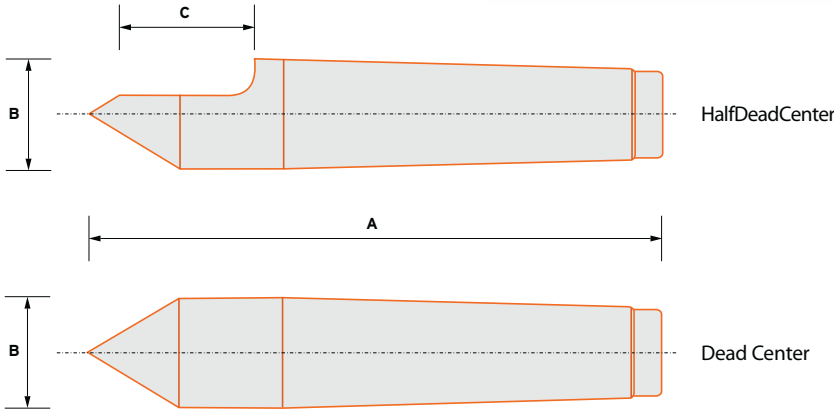
Available in two types — Full and Half Dead Centers. Half Dead Centers come with a full carbon steel construction or with Carbide tips. Full Dead Centers are additionally available with High Speed Steel tips

In centers with carbide/HSS tips, the tips are brazed into a close tolerance socket for maximum strength

Carbide tip centers are preferred in applications where the workpiece has a hardness close to or more than that of Carbon Steel Dead Centers. Carbide tip imparts durability and calls for less downtime for regrinding of point. High speed steel Dead Centers are especially useful in applications that involve shock



The included point angle is $60^\circ + 15' - 0''$



Ordering Information - Dead Centers

Cat. Nr.	Ordering Nr.	Cat. Nr.	Ordering Nr.	Cat. Nr.	Ordering Nr.	Morse Taper	A		B	
							Inch	mm	Inch	mm
Carbide Tipped		HSS Tipped		Carbon Steel						
DCT/1	11100	DCTH/1	11120	DCC/1	11140	MT 1	3-3/16	80	1/2	12.2
DCT/2	11101	DCTH/2	11121	DCC/2	11141	MT 2	4	100	23/32	18
DCT/3	11102	DCTH/3	11122	DCC/3	11142	MT 3	5	125	31/32	24.1
DCT/4	11103	DCTH/4	11123	DCC/4	11143	MT 4	6-3/8	160	1-1/4	31.6
DCT/5	11104	DCTH/5	11124	DCC/5	11144	MT 5	8	200	1-25/32	44.7

Ordering Information - Half Dead Centers

Cat. Nr.	Ordering Nr.	Cat. Nr.	Ordering Nr.	Morse Taper	A		B		C	
					Inch	mm	Inch	mm	Inch	mm
Carbide Tipped		Carbon Steel								
DCT/1H	11110	DCC/1H	11150	MT 1	3-3/16	80	1/2	12.2	7/8	22
DCT/2H	11111	DCC/2H	11151	MT 2	4	100	23/32	18	1-13/16	30
DCT/3H	11112	DCC/3H	11152	MT 3	5	125	31/32	24.1	1-17/32	38
DCT/4H	11113	DCC/4H	11153	MT 4	6-3/8	160	1-1/4	31.6	2	50
DCT/5H	11114	DCC/5H	11154	MT 5	8	200	1-25/32	44.7	2-17/32	63

56 ADJUSTABLE TAP & REAMER WRENCHES—BAR TYPE No. 092D No. 092R No. 092

ESP Giramachos ajustables FR Tourne - à - gauche DE Verstellbare Windeisen



The Straight handle design of these tap wrenches provides greater leverage, particularly useful when working with large diameter taps

These are manufactured in three types:

- Type A : Acc DIN 1814 <No. 092D>
- Type B : Professional <No. 092R>
- Type C : Industrial <No. 092>

TYPE A – Acc DIN 1814 <No. 092D>

With zinc die cast body and hardened steel jaws, these have an exceptionally rugged construction. Chrome plated handles with knurled ends provide a comfortable non slip grip. Larger sizes have a cross hole drilled on one end for easy tightening using a tommy bar



<TypeA:AccDIN1814

TYPE B – Professional <No. 092R>

Professional quality tap wrenches with an all steel body, these provide a positive grip combined with the sensitivity required when tapping a blind hole. Jaws are hardened and tempered for increased resistance to wear. The wrench body is black powder coated with attractive chrome plated handles



<TypeB:Professional

TYPE C – Industrial <No. 092>

Extra heavy duty. Industrial Quality tap wrenches - virtually unbreakable Nr. 0,00, 5 & 6 have a forged steel body. Nr. 7 & 8 are cast from S.G. Iron



< Type C: Industrial

Ordering Information

Cat. Nr.	Ordering Nr.	Length		Jaw Holding Capacity			
				Square Size		Tap Size	
		Inch	mm	Inch	mm	Inch	mm
Acc DIN 1814							
ATWR/D/0	09200	6.19/64	160	5/64 - 13/64	2-5	1/16 - 1/4	M2-M6
u ATWR/D/1	09201	7.5/64	180	5/64 - 1/4	2 - 6.3	1/16 - 5/16	M2-M8
u ATWR/D/2	09202	11	280	5/32 - 23/64	4 - 9	3/16 - 9/16	M5-M14
ATWR/D/3	09203	15	375	3/16 - 15/32	4.9 - 12	1/4 - 3/4	M6-M18
Professional							
ARWR/1/SPL	09210	5	125	7/64 - 5/32	2.5 - 4	1/8 - 3/16	M3-M5
u ARWR/2/SPL	09211	8.17/64	210	3/32 - 1/4	2.4 - 6.5	3/16 - 5/16	M4-M8
u ARWR/3/SPL	09212	12.13/64	310	3/32 - 3/8	2.4 - 9.5	3/16 - 9/16	M4-M14
ARWR/44/SPL	09213	16	400	7/32 - 5/8	5.6 - 16	7/16 - 1.1/8	M7-M27
Industrial							
u ARWR/SG/0	09221	8	200	3/32 - 1/2	2.5 - 12	1/8 - 3/8	M1-M12
ARWR/SG/00	09220	4.88	122	5/64 - 9/32	2 - 7.35	1/8 - 1/4	M1-M6
u ARWR/SG/5	09222	10.8	270	11/64 - 9/16	4.25 - 14.4	3/16 - 5/8	M4-M16
ARWR/SG/6	09223	14.8	370	11/64 - 11/16	4.25 - 17.7	3/16 - 7/8	M4-M20
ARWR/SG/7	09224	19.6	490	1/4 - 29/32	6.8 - 23.25	1/4 - 1.1/8	M6-M30
ARWR/SG/8	09225	29.6	740	3/8 - 1.13/32	9.2 - 36.0	1/2 - 1.3/4	M9-M45

u BESTSELLER



57 TAP WRENCHES – T HANDLE TYPE - PROFESSIONAL

ESP Giramachos en T FR Porte - tarauds En bout DE Werkzeughalter

Industrial quality Tap wrenches for the professional user

Designed to give the user the reach and leverage needed for accurate tapping, these are used for holding taps, drills, reamers & other small tools to be turned by hand

CNC machined to very close tolerances with self centering powder metallurgy hardened jaws & knurled chuck sleeve for positive grip, these are available in two types:

Plain Tap Wrenches:

The smallest size TW/163 has a rigid T handle, whereas TW/164 & TW/166 have sliding T handles for greater leverage when working in tight spaces

Also available with longer body for added leverage in hard to reach places

Reversible Ratchet Tap Wrenches:

Ratchet can be set for right or left hand operation or locked for non ratchet use. Self centering powder metallurgy hardened jaws and knurled chuck sleeve provide positive grip on taps, reamers and small tools. Sliding T – Handle for fitting into tight spaces with greater leverage

Also available with longer body for added leverage in hard to reach places



PlainTapWrenches>



<RatchetType



Extra Long Tap Wrenches >

Ordering Information

Cat. Nr.	Ordering Nr.	Body Length		Cat Nr.	Ordering Nr.	Body Length		Tap Capacity		Square Size	
		Inch	mm			Inch	mm	Inch	mm	Inch	mm
Plain Tap Wrenches											
Regular Length				Extra Long							
TW/163	09360	2-1/4	57	-	-	-	-	Nr. 0 – Nr. 8	M1.6 – M4	5/64 – 1/8	2.0 – 3.15
TW/164	09361	2-3/4	70	TW/164L	09365	9	225	Nr. 0 – 1/4"	M1.6 – M6	5/64 – 13/64	2.0 – 5.0
TW/166	09362	3-3/4	95	TW/166L	09366	9	225	Nr. 12 – 1/2"	M6 – M12	13/64 – 17/64	5.0 – 7.0
Ratchet Type											
Regular Length				Extra Long							
TW/R/160	09370	2-3/4	70	-	-	-	-	Nr. 0 – Nr.8	M1.6 – M4	5/64 – 1/8	2.0 – 3.15
TW/R/161	09371	3-1/2	88	TW/R/161L	09375	13	330	Nr. 0 – 1/4"	M1.6 – M6	5/64 – 13/64	2.0 – 5.0
TW/R/162	09372	4-1/4	106	TW/R/162L	09376	13	330	Nr. 12 – 1/2"	M6 – M12	13/64 – 17/64	5.0 – 7.0

58 MICRO TAP GUIDE

TPG

ESP Instrumento de alineación Roscas de macho FR Outil d'alignement Tarau DE Ausrichtungswerkzeug Handgewindebohrer

Handy accessory for any machinist, the Micro Tap Guide ensures you start every tap or reamer straight with perfect alignment

It has a spring loaded & hardened 3/16" (4.76 mm) diameter point that can be reversed. The pointed end guides a tap or tap wrench directly as it fits into the hole on the end of tap / tap wrench. The reversed concave end is good for smaller taps which usually have a 60° taper ground at the end

The Micro Tap Guide has a fully hardened & ground 1/2" shank that can be chucked up in the lathe tailstock or the drill press

For use with # 10 – 1 Taps



NEW!

Ordering Information

Cat.Nr.	Ordering Nr.
TPG/10-1	09350



The concave end is good for smaller taps, which usually have a 60° taper ground at the end. This allows great support and alignment

59 DIE HOLDERS – SHANK TYPE

No. 091

ESP Porta Terrajas FR Porte - filières monobloc DE Schneideisenhalter

Ideal for short or medium run threading of shafts etc. these holders are most convenient for use on lathes, milling machines, tapping machines etc.

Manufactured from solid one piece steel, these have a rust proof black oxide finish. Main body is counterbored for chip clearance.

Concentricity of hole with respect to shank
± 0.002" (± 50 microns)



Ordering Information

Cat. Nr.	Ordering Nr.	Shank Diameter		Shank Length		Suitable for Die Size
		Inch	mm	Inch	mm	
DH/13-16	09120	1/2	12.7	2	50	13/16
DH/0-1	09121	1/2	12.7	2	50	1
DH/1-1-2	09122	1/2	12.7	2	50	1-1/2



Die Holder holding a die being used for external thread cutting

60 DIE STOCK HOLDERS – ROUND DIES

ESP Porta Terrajas FR Porte - filières DE Schneideisenhalter

Die holders are used for holding round dies, that are suited for efficient and clean cutting of external threads

Die holders have a rugged construction with heavy duty set screws that hold the die firmly in place

These are manufactured in two types.

Type A – Acc DIN 225

These have steel bodies with chrome plated handles

Type B – Professional

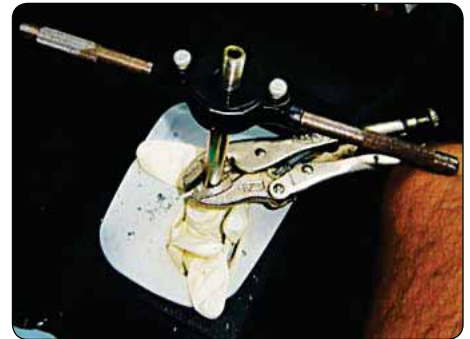
All steel construction with black powder coated body. Handles have knurled ends with ends in black powder coated finish



Ordering Information

Cat. Nr.	Ordering Nr.	Suitable for Die Size	Length	
			Inch	mm
Acc DIN 225				
DS/D/20-5	09100	20 x 5 mm	8	200
DS/D/20-7	09101	20 x 7 mm	8	200
u DS/D/25-9	09102	25 x 9 mm	9	224
u DS/D/30-11	09103	30 x 11 mm	11	280
DS/D/38-14	09104	38 x 14 mm	12-3/8	315
Professional				
H DS/5-8	09127	5/8"	5-1/2"	140
DS/13-16	09110	13/16"	6-1/2"	165
u DS/0-1	09111	1"	8-1/4"	209
DS/1-5-16	09112	1-5/16"	10"	250
u DS/1-1-2	09113	1-1/2"	12-3/8"	315
u DS/0-2	09114	2"	15-3/8"	390
DS/2-1-2	09116	2-1/2"	19	480
DS/0-3	09117	3"	22-1/2"	570
H DS/3-1-2	09118	3-1/2"	29-3/4"	755
H DS/0-4	09119	4"	33	840

u BESTSELLER H MADE TO ORDER



61 TURNING TOOL HOLDERS – AMERICAN PATTERN

TH

ESP Porta herramientas FR Porte - Outils DE Werkzeughalter

Manufactured from high grade steel, these toolholders are accurately machined and ground

Toolbits are held parallel and straight to the shank giving maximum support to the cutting edge. Set screws are made from heat treated alloy steel with hardened points for increased resistance to wear

These are available with straight shank, right handed or left handed offset shank. Each holder comes complete with an allen key but without toolbit



Ordering Information

Cat. Nr.	Ordering Nr.	Cat. Nr.	Ordering Nr.	Cat. Nr.	Ordering Nr.	Holder Size	Tool Bit Size	For Lathes of Approx. Swing
Straight Shank		Left Hand		Right Hand		Inch	Inch	
TH/3S	11300	TH/3L	11310	TH/3R	11320	5/16 x 3/4 x 4-1/2	3/16	7 to 10
TH/4S	11301	TH/4L	11311	TH/4R	11321	3/8 x 7/8 x 5	1/4	10 to 12
TH/5S	11302	TH/5L	11312	TH/5R	11322	1/2 x 1-1/8 x 6	5/16	14 to 16
TH/6S	11303	TH/6L	11313	TH/6R	11323	5/8 x 1-3/8 x 7	3/8	16 to 18
TH/7S	11304	TH/7L	11314	TH/7R	11324	3/4 x 1-5/8 x 8	7/16	18 to 20
TH/8S	11305	TH/8L	11315	TH/8R	11325	7/8 x 1-3/4 x 9	1/2	24 to 36

62 CUT OFF TOOL HOLDERS

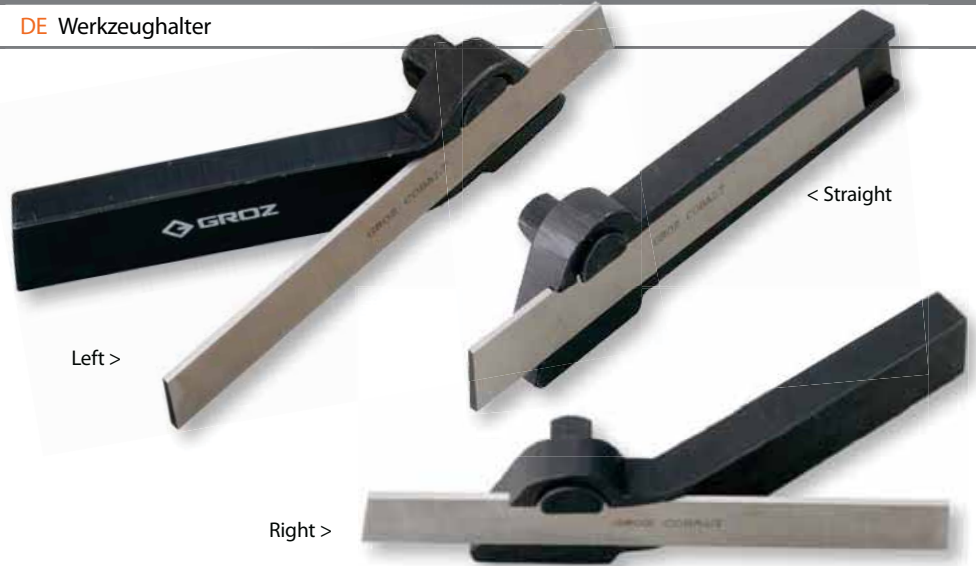
CT

ESP Porta herramientas FR Porte - Outils DE Werkzeughalter

Manufactured from high grade steel, machined and ground to precise tolerances, these cut off tool holders support the blade over a wide area thereby reducing the possibility of blade breakage

The locking device enables the blade to be held securely and also enables rapid assembly. Especially designed clamp plate provides both downward and sideways pressure along a large area of the top edge of the tool ensuring complete rigidity

These are available with straight shank, right handed or left handed offset shank. Supplied with key but without blade



Ordering Information

Cat. Nr.	Ordering Nr.	Cat. Nr.	Ordering Nr.	Cat. Nr.	Ordering Nr.	Holder Size		Blade Size	
						Inch	mm	Inch	mm
Straight		Left		Right					
CT/0S	11600	CT/0L	11610	CT/0R	11620	5/16 x 9/16 x 3-11/16	7.93 x 14.28 x 93.4	1/16 x 5/16	1.58 x 7.93
CT/1S	11601	CT/1L	11611	CT/1R	11621	5/16 x 3/4 x 4-1/2	7.93 x 19 x 114	3/32 x 1/2	2.38 x 12.7
CT/2S	11602	CT/2L	11612	CT/2R	11622	3/8 x 7/8 x 5	9 x 22 x 125	3/32 x 5/8	2.38 x 15.8
CT/3S	11603	CT/3L	11613	CT/3R	11623	1/2 x 1-1/8 x 6	13 x 28 x 150	1/8 x 3/4	3.17 x 19
CT/4S	11604	CT/4L	11614	CT/4R	11624	5/8 x 1-3/8 x 7	16 x 35 x 175	1/8 x 7/8	3.17 x 22.2
CT/5S	11605	CT/5L	11615	CT/5R	11625	3/4 x 1-5/8 x 8	19 x 41 x 200	3/16 x 1	4.76 x 25.4
CT/6S	11606	CT/6L	11616	CT/6R	11626	7/8 x 1-3/4 x 9	22 x 41 x 225	3/16 x 1-1/8	4.76 x 28.57

63 PARTING OFF TOOL HOLDERS

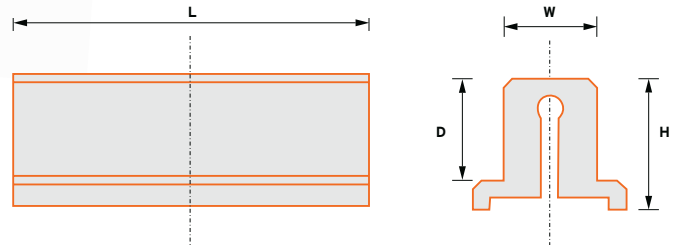
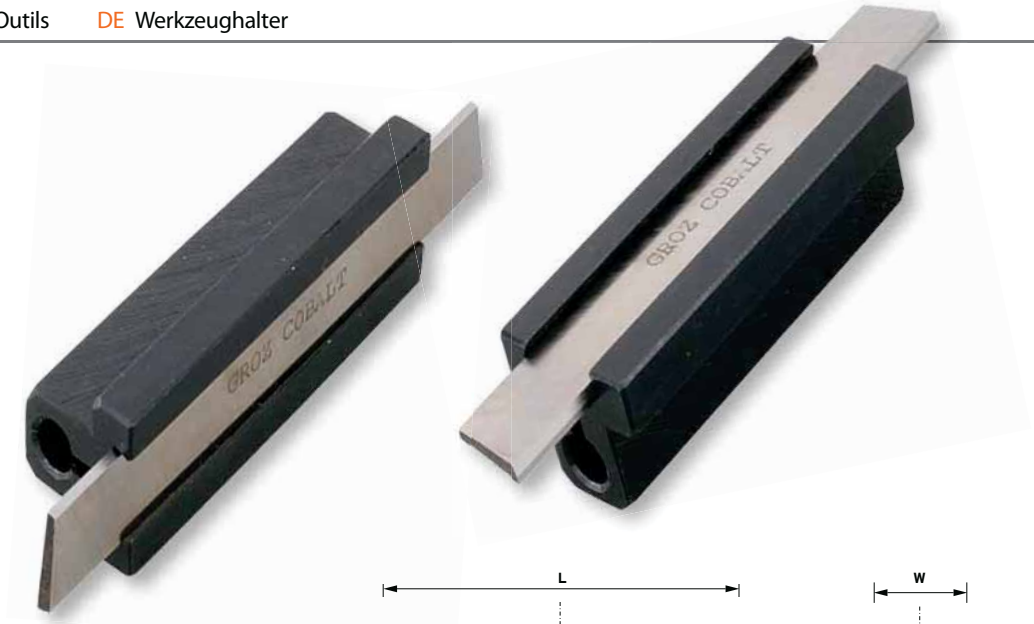
PT

ESP Porta herramientas FR Porte - Outils DE Werkzeughalter

With a single piece rigid construction, hardened 45± HRC the Parting off Tool Holder enables the blade to be held and gripped simply by a standard screw type tool post

It can be used in both front and rear tool posts and holds a bevel blade to ensure equal clearance is attained on either side of the bevel

The parting off tool holder is supplied without a blade



Ordering Information

Cat. Nr.	Ordering Nr.	Blade Size	L	H	W	D
		Inch	Inch	Inch	Inch	Inch
PT/1	11631	1/2 x 3/32	2-3/4	13/16	1/2	1/2
PT/2	11632	5/8 x 3/32	2-3/4	13/16	1/2	9/16
PT/3	11633	3/4 x 1/8	3-3/8	1-1/16	11/16	3/4

64 FLY CUTTER HOLDER SET

FCH

ESP Porta herramientas FR Jeu de Porte - barreaux à surfer "FLYCUTTER" DE Werkzeughalter

Manufactured from selected steel, accurately hardened, this is an excellent tool for boring through holes or to a shoulder

The angle permits maximum sweep diameter with minimum tool projection and can machine upto 6" wide surface with a standard tool bit

Complete set consists of 3 fly cutters with shank fully counter balanced to ensure a smooth finish

Supplied without toolbits



Ordering Information

Cat. Nr.	Ordering Nr.	No. of Holders	Shank Diameter		Head Diameter		Tool Bit Size
			Inch	mm	Inch	mm	Inch
FCH/01	11200	3	1/2	12.7	3/4	19	3/16
					1-1/8	28	1/4
					1-1/2	38	5/16
FCH/2	11206	3	3/4	19	1-1/2	38	5/16
					2	50	5/16
					2-1/2	63.5	5/16

NEW SIZE

CA 53



Fly Cutter Holder with tool being used for face machining of a job on a vertical milling center

65 KNURLING TOOL HOLDERS

KT

ESP Porta moletas FR Porte - molettes DE Werkzeughalter

The rigid and robust construction of the Groz range of knurling tool holders makes them ideal for countless knurling applications

These are available in 3 types:

- 1. Knurling Tool Holders – 3 Pairs
- 2. Knurling Tool Holder – 1 Pair
- 3. Knurling Tool Holder – 1 Knurl

1. Knurling Tool Holders – 3 pairs

The revolving head is fitted with standard left and right pattern knurls in fine, medium and coarse pitch. Any pair can be brought to bear on the workpiece, thus 3 different knurling patterns are obtainable without changing the tool

2. Knurling Tool Holder – 1 pair

A two knurl holder ideal for small knurling applications, it has a self adjusting pivot head which ensures that the knurl finds the centre line of the work exactly. It comes complete with one right and one left hand knurl

3. Knurling Tool Holder – 1 Knurl

Single knurl holders, these are useful for light duty applications. They come complete with one straight knurl



Ordering Information

Cat. Nr.	Ordering Nr.	Holder Size		Knurl Dimension	
		Inch	mm	Inch	mm
Knurling Tool Holder – 3 Pairs					
KT/6-1	11700	7-1/2 x 1-3/8 x 5/8	190 x 35 x 16	3/4 x 3/8 x 1/4	19 x 9.5 x 6.35
KT/6-2	11701	6-1/2 x 1-1/8 x 1/2	165 x 28 x 13	3/4 x 3/8 x 1/4	19 x 9.5 x 6.35
KT/6-3	11702	5-1/2 x 7/8 x 3/8	142 x 22 x 10	5/8 x 5/16 x 7/32	16 x 8 x 5.5
KT/6-4	11703	5 x 3/4 x 5/16	127 x 19 x 8	5/8 x 5/16 x 7/32	16 x 8 x 5.5
Knurling Tool Holder – 1 Pair					
KT/2-1	11810	7-1/2 x 1-3/8 x 5/8	190 x 35 x 16	3/4 x 3/8 x 1/4	19 x 9.5 x 6.35
KT/2-2	11811	6-1/2 x 1-1/8 x 1/2	165 x 28 x 13	3/4 x 3/8 x 1/4	19 x 9.5 x 6.35
KT/2-3	11812	5-1/2 x 7/8 x 3/8	142 x 22 x 10	5/8 x 5/16 x 7/32	16 x 8 x 5.5
KT/2-4	11813	5 x 3/4 x 5/16	127 x 19 x 8	5/8 x 5/16 x 7/32	16 x 8 x 5.5
KT/2-5	11814	4-1/2 x 1/2 x 1/2	114 x 13 x 13	3/4 x 3/8 x 1/4	19 x 9.5 x 6.35
KT/2-5M	11815	—	200 x 27 x 18	—	20 x 8 x 6
Knurling Tool Holder – 1 Knurl					
KT/0-1	11800	4 x 1/2 x 1/2	100 x 13 x 13	3/4 x 1/4 x 1/4	19 x 6.35 x 6.35
KT/0-2	11801	6 x 5/8 x 5/8	150 x 16 x 16	3/4 x 5/16 x 1/4	20 x 8 x 6
KT/0-3	11802	4 x 1/2 x 3/4	100 x 13 x 19	3/4 x 1/4 x 1/4	19 x 9.5 x 6.35

66 KNURLING TOOL HOLDER - QUICK ACTION

KT/Q

ESP Porta moletas - Acción Rápida FR Porte - molettes à serrage rapide DE Werkzeughalter



For use with Manual lathes, these are designed to operate in a manner exerting no pressure on the lathe, compound, centres or feed screw. Knurling pressure is absorbed by the knurling tool itself

These are easier & faster to set up & produce clean & sharp knurling with no double tracking

These come complete with 1 pair of Medium Diamond pattern Knurls



Knurling Tool Holder - being used for doing knurling on a job fitted onto a lathe machine

Ordering Information

Cat. Nr.	Ordering Nr.	Holder Size				Capacity (Min x Max)		Knurl Dimensions	
		Length		Shank		Inch	mm	Inch	mm
		Inch	mm	Inch	mm				
KT/Q/2-6	11850	6	150	5/8 x 1/2	16 x 13	1/16 x 2-1/4	1.6 x 57.15	3/4 x 3/8 x 1/4	19 x 9.5 x 6.35
KT/Q/2-8	11851	8-1/4	210	3/4 x 5/8	19 x 16	2-1/2 x 4-1/2	64 x 108	3/4 x 3/8 x 1/4	19 x 9.5 x 6.35

67 PIN CHUCK SET

PCH-13

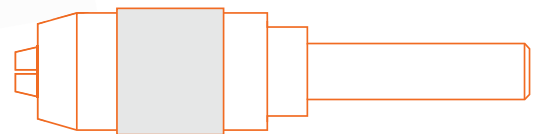
ESP Mini mandril - juego FR Mandrins à pinces DE Stift Klemme-Satz

The Pin Chuck is a very useful reducing chuck used for holding drills too small to be held by a regular chuck. It is gripped in the larger chuck already on the machine by means of the back shank

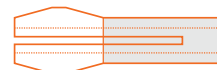
Supplied with three interchangeable collets for holding small drills in varying sizes



Chuck assembled with collet



Collets are available in three sizes



Screw on cap is used to hold and interchange collets



Ordering Information

Cat. Nr.	Ordering Nr.	Collet Capacity	
		Inch	mm
PCH/1-3	08800	0 to 1/32	0 to 0.75
		1/32 to 1/16	0.75 to 1.5
		1/16 to 3/32	1.5 to 2.5

68 PIN VICES

No. 359

ESP Mini prensas tipo mandril FR Porte - outil à pinces DE Stift-Schraubstöcke

Pin vices are used for holding small taps, drills, reamers, scribes, wire, small files etc. These are available in following types:

Pin Vices – Regular

This range of Pin Vices have special tool steel jaws that provide for a firm grip. A straight smooth section on the handle allows these vices to be conveniently held in machine chucks for machining operations. The handles have a hole extending through the entire length which permit holding wires of any length or diameter upto the full size of the tool. These are available as individuals or as a set of 4

Master Pin Vice

A very useful vice, it finds application in model making and jewellery making industry. It has a single collet made of hardened steel, suitable for holding small drills, miniature tools etc. The opposite end has a large free wheeling swivel head

Pin Vice – Double Ended

This double ended pin vice has reversible collets at each end. The chuck at one end can hold work or tools of diameter 0- 0.031" and 0.093" - 0.125" (0 - 0.08 mm and 2.5 - 3.2 mm). The chuck at the opposite end holds work of diameter 0.031" - 0.062" and 0.062 - 0.093" (0.8 - 1.6 mm and 1.6 mm - 2.5 mm)

[NEW]

Adjustable Pin Vice

With a 3 jaw keyless steel chuck and a sturdy handle this pin vice is especially useful for holding small drills, burrs, wires, files, reamers etc. Very useful in electronic assembling, tool making, model making & for the hobbyist's



Pin Vices Regular

Master Pin Vice

Pin Vice Double Ended

Adjustable Pin Vice-PV/93

NEW!

Ordering Information

Cat. Nr.	Ordering Nr.	Capacity		Overall Length		Body Diameter	
		Inch	mm	Inch	mm	Inch	mm
Pin Vices							
PV/1	35901	0-3/64	0-1	3.25/64	85	13/64	5
PV/2	35902	1/32 – 1/16	0.75 – 1.5	3.15/32	87	15/64	6
PV/3	35903	1/16 – 1/8	1.5 – 3	3.33/64	88	9/32	7
PV/4	35904	1/8 – 11/64	3 – 4.5	4.3/32	102.5	5/16	8
PV/1-4/ST	35900	A set of one each of the above Pin Vices					
Pin Vice - Double Ended							
PVD/02	35910	0 – 1/8	0 – 3.2	4	100	3/8	9
Master Pin Vice							
MPV/04	35911	0 – 1/8	0 – 3.2	3-21/32	92.5	3/8	9
Adjustable Pin Vice							
PV/93	35913	3/16 – 1/4	1 - 6.4	6.7/8	175	1	25

NEW SIZE



PinVice being used to hold a drill for hand-drilling on an electronic component

69 LATHE CARRIERS

No. 139

ESP Mordazas para Torno FR Tocs de Tour queue coudée ou droite

Manufactured from high tensile, malleable cast iron, with an attractive grey hammertone finish, these are very useful for holding workpieces securely for smooth and even turning

Used in conjunction with a catch-plate, these act as a driving device while turning material between centres. A 'V' groove in the body helps clamping of round jobs

Ordering Information

Cat. Nr.	Ordering Nr.	Cat. Nr.	Ordering Nr.	Holding Capacity	
				Inch	mm
Straight Tail		Bent Tail			
LC/S/1-4	13900	LC/B/1-4	13920	1/4	6
LC/S/3-8	13901	LC/B/3-8	13921	3/8	10
LC/S/1-2	13902	LC/B/1-2	13922	1/2	13
LC/S/3-4	13903	LC/B/3-4	13923	3/4	20
LC/S/0-1	13904	LC/B/0-1	13924	1	25
LC/S/1-1-4	13905	LC/B/1-1-4	13925	1-1/4	30
LC/S/1-1-2	13906	LC/B/1-1-2	13926	1-1/2	40
LC/S/1-3-4	13934	LC/B/1-3-4	13935	1-3/4	45
LC/S/0-2	13907	LC/B/0-2	13927	2	50
LC/S/2-1-2	13908	LC/B/2-1-2	13928	2-1/2	63
LC/S/0-3	13909	LC/B/0-3	13929	3	75
LC/S/3-1-2	13910	LC/B/3-1-2	13930	3-1/2	90
LC/S/0-4	13911	LC/B/0-4	13931	4	100
LC/S/0-5	13912	LC/B/0-5	13932	5	125
LC/S/0-6	13913	LC/B/0-6	13933	6	150



Bent tail



Straight tail

70 LATHE CHUCK KEYS

LCK

ESP Llaves para mandril de torno FR Clés pour mandrin de tours DE Außenvierkant-Schlüssel

Manufactured from alloy steel, these keys are induction hardened for increased resistance to wear. These are available in both imperial and metric sizes



Ordering Information

Cat. Nr.	Ordering Nr.	Capacity (Inch)	Cat. Nr.	Ordering Nr.	Capacity (mm)
Imperial Sizes					
LCK/1-4	13950	1/4	LCK/6	13960	6
LCK/5-16	13951	5/16	LCK/8	13961	8
LCK/3-8	13952	3/8	LCK/9	13962	9
LCK/7-16	13953	7/16	LCK/10	13963	10
LCK/1-2	13954	1/2	LCK/12	13964	12
LCK/9-16	13955	9/16	LCK/14	13965	14
LCK/5-8	13956	5/8	LCK/16	13966	16
LCK/11-16	13957	11/16	LCK/17	13967	17

71 BORING BARS

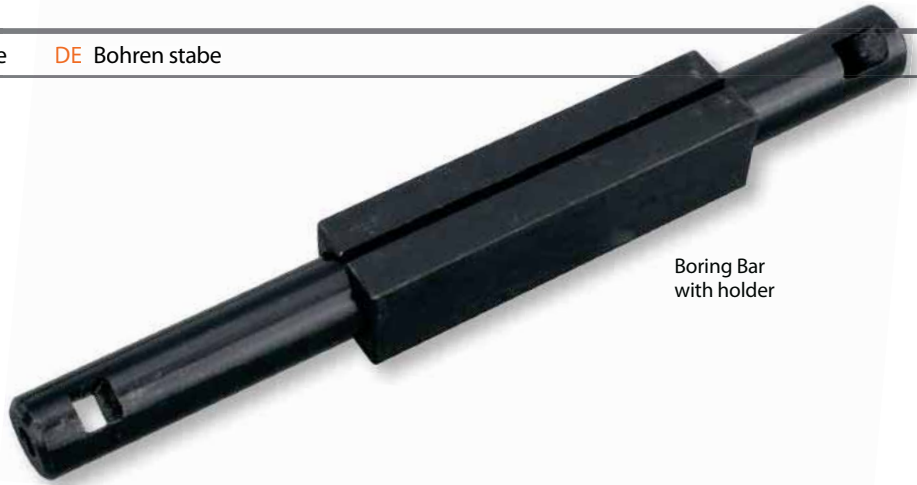
ESP Porta Buril de interiores FR Barres D' Alésage DE Bohren stabe

Manufactured from selected steel, these boring bars are accurately machined

Bars incorporate broached holes that accept standard high speed steel or carbide toolbits conveniently

A complete range of single ended or double ended boring bars are available with or without the holder

Bars are supplied with an allen-key but without toolbits



Boring Bar with holder



Single ended 90° boring bars, especially useful for shoulder cutting, undercuts, groove cutting etc.



Single ended 45° boring bars for deep boring applications

Ordering Information - Boring Bars with Holders

Cat. Nr.	Ordering Nr.	Boring Bar Length		Boring Bar Diameter		Holder Length		Square Size		Tool Bit Size
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	
BB/1-8	13300	4-1/2	114	3/8	9.52	2-1/2	63	1/2	12.7	1/8
BB/3-16	13301	5-1/4	133	7/16	11.11	2-1/2	63	5/8	15.8	3/16
BB/1-4	13302	6-3/4	171	9/16	14.28	3	76	3/4	19	1/4
BB/5-16	13303	9-1/4	235	3/4	19	3-3/4	95	1	25	5/16
BB/3-8	13304	11-1/2	292	7/8	22.22	4-1/2	114	1-1/4	32	3/8
BB/1-2	13305	14-1/2	368	1-1/14	31.75	5-1/4	133	1-1/2	38	1/2

Ordering Information - Boring Bars

Cat. Nr.	Ordering Nr.	Type	Shank Diameter		Length		Tool Bit Size		
			Inch	mm	Inch	mm	Inch	Type	
BBR/3-8-6/SQ	13213	Double ended 45° and 90°	3/8	9.5	6	152	1/8	Square	
BBR/3-8-6/RD	13212		3/8	9.5	6	152	3/16	Round	
BBR/1-2-9/3-16	13224		1/2	12.7	9	228.5	3/16	Square	
BBR/1-2-9/1-4	13225		1/2	12.7	9	228.5	1/4	Square	
BBR/9-16-9	13230		9/16	14	9	228.5	3/16	Square	
BBR/5-8-10	13244		5/8	15.8	10	254	1/4	Square	
BBR/3-4-12	13256		3/4	19	12	305	1/4	Square	
BBR/15-16-12	13260		15/16	23.8	12	305	5/16	Square	
BBR/1-12	13273		1	25.4	12	305	5/16	Square	
BBR/1-16	13272		1	25.4	16	406	5/16	Square	
BBR/1-1-4/16	13280	1-1/4	31.5	16	406	1/2	Square		
BBR/1-1-2/18	13290	1-1/2	38	18	457	1/2	Square		
BBR/5/ST	13201	Set of 5 Bars 3/8", 1/2", 5/8", 3/4" and 1" on a wooden stand							
BBR/3-8-3/45	13210	Single ended 45°	3/8	9.5	3	76	3/16	Square	
BBR/1-2/4/45	13220		1/2	12.7	4	102	3/16	Square	
BBR/5-8/5/45	13240		5/8	15.8	5	127	1/4	Square	
BBR/3-4/5/45	13252		3/4	19	5	127	1/4	Square	
BBR/3-4/7/45	13254		3/4	19	7	178	1/4	Square	
BBR/1-8/45	13270		1	25.4	8	203	5/16	Square	
BBR/3-8/3/90	13211	Single ended 90°	3/8	9.5	3	76	3/16	Square	
BBR/1-2/4/90	13221		1/2	12.7	4	102	3/16	Square	
BBR/5-8/5/90	13241		5/8	15.8	5	127	1/4	Square	
BBR/3-4/5/90	13253		3/4	19	5	127	1/4	Square	
BBR/3-4/7/90	13255		3/4	19	7	178	1/4	Square	
BBR/1-8/90	13271		1	25.4	8	203	5/16	Square	

Double ended boring bar for holding toolbits at 45° and 90°



72 BORING BARS SQUARE HOLDER

BH

ESP Soporte cuadrado para porta buril de interiores FR Barres D' Alésage DE Bohren tool halter

Manufactured from selected steel, these are ideal for holding standard round boring bars in standard toolholders or toolposts



Ordering Information

Cat. Nr	Ordering Nr.	Holder Size		Suitable for bar size	
		Inch		Inch	
BH/3-8	13400	1/2 x 1/2	x 2-1/4	3/8	
BH/1-2	13401	3/4 x 3/4	x 3	1/2	
BH/5-8	13402	7/8 x 7/8	x 3-1/4	5/8	
BH/3-4	13403	1 x 1	x 3-3/4	3/4	

73 DRAW BAR HAMMER

DBH

ESP Martillo FR Marteau DE Hammer

A dual purpose hammer with a solid Brass head on one side and a 3/4" socket on other

Soft blow brass hammer head is replaceable and is very useful for hammering soft materials, loosening of collets and spindle tapers

The socket end fits 3/4" bolts on vertical mills

The 10" long handle with a soft cushion grip provides convenient leverage

Replaceable Brass Head

3/4"Socket



DrawBarHammer-being used to loosena nut on a pulley drive



Ordering Information

Cat. Nr.	Ordering Nr.	Hammer Head Diameter		Socket Size
		Inch	mm	
DBH/3-4	32485	1-1/8	28.5	3/4"

74 ADJUSTABLE HAND REAMERS

AHR

ESP Escariador manual ajustable HSS FR Alésoirs Lames réglables DE Adjustable Bohrwerkzeuge



The Groz range of Adjustable Hand Reamers are extremely useful precision tools for any engineering or auto-repair shop

Just 16 sizes cover diameters ranging from 3/8" — 2.7/32" (9.5 mm — 56.35 mm)

These are ideal for use on steel or nonferrous metals

The reamer blades are made from High Speed Steel, accurately hardened 60 - 64 HRC and relief ground

Each adjustable reamer has a chamfer or lead on the front end of diameter 0.004" - 0.019" according to size, which helps to make a quick start in reaming operation



Reamers expand by loosening one adjusting nut and tightening the other

Cocentricity within : 30 microns

USING REAMERS

1. Remove only a small amount of metal approx 0.002" (0.05mm) per cut
2. It is better to use two small cuts rather than one large one as larger cuts can strain the reamer.
3. When cutting soft material hone the cutting edge.



Ordering Information

Cat. Nr.	Ordering Nr.	Type	Range		Overall Length	
			Inch	mm	Inch	mm
AHR/5	11905	H1	3/8 - 13/32	9.5 - 10.3	4-3/4	120.5
AHR/6	11906	H2	13/32 - 7/16	10.3 - 11.11	5	125
AHR/7	11907	H3	7/16 - 15/32	11.11 - 11.9	5-1/4	133
AHR/8	11908	H4	15/32 - 17/32	11.9 - 13.5	5-1/2	140
AHR/9	11909	H5	17/32 - 19/32	13.5 - 15	5-3/4	146
AHR/10	11910	H6	19/32 - 21/32	15 - 16.6	6-1/2	165
AHR/11	11911	H7	21/32 - 23/32	16.6 - 18.25	6-3/4	171
AHR/12	11912	H8	23/32 - 25/32	18.25 - 19.8	7	175
AHR/13	11913	H9	25/32 - 27/32	19.8 - 21.4	7-3/8	187
AHR/14	11914	H10	27/32 - 15/16	21.4 - 23.8	8	200
AHR/15	11915	H11	15/16 - 1-1/16	23.8 - 26.98	9	225
AHR/16	11916	H12	1-1/16 - 1-3/16	26.98 - 30.16	10	250
AHR/17	11917	H13	1-3/16 - 1-11/32	30.16 - 34.1	11	275
AHR/18	11918	H14	1-11/32 - 1-1/2	34.1 - 38.1	12	300
AHR/19	11919	H15	1-1/2 - 1-13/16	38.1 - 46	14	350
AHR/20	11920	H16	1-13/16 - 2-7/32	46 - 56.3	16	400

Sets		
AHR/8/ST	11930	A set of 8 adjustable reamers from 15/32" - 1-1/16" (H4 - H11)
AHR/11/ST	11931	A set of 11 adjustable reamers from 15/32" - 1-1/2" (H4 - H14)

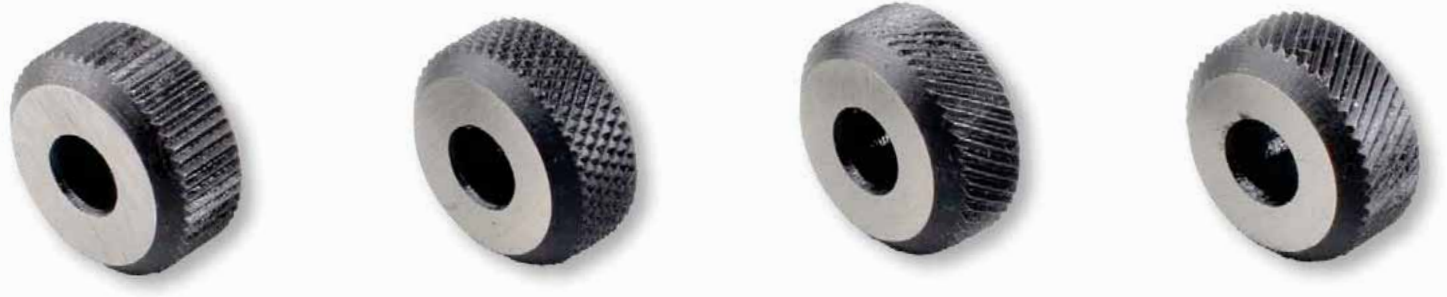
75 KNURLS – HIGH SPEED STEEL

ESP Moletas FR Molettes HSS DE Knolen



Manufactured from High Speed Steel, fully hardened to over 60 HRC knurls have perfectly formed short teeth. The faces are chamfered on both sides to produce burr-free work of uniform precision

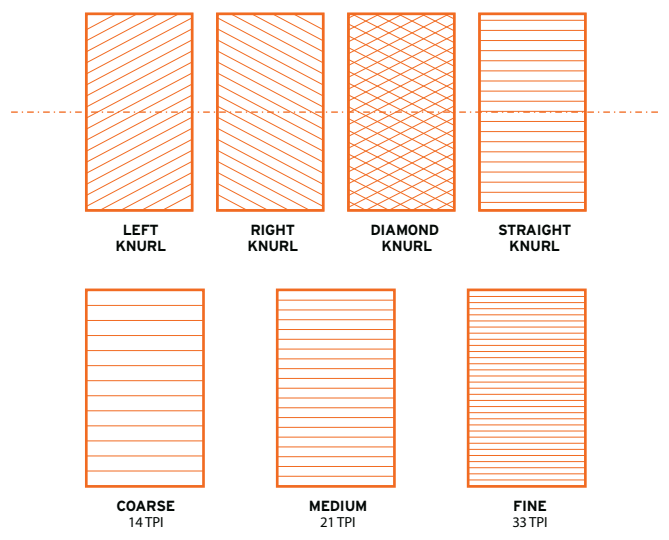
Left hand knurling is produced by right hand knurls and right hand knurling is produced by left hand knurls. Diamond knurling is produced by using right and left hand knurls in pairs



Ordering Information

Knurl Size	Cat. & Ordering Nr.	5/8"	3/4"	1"	20 mm
Coarse Pitch Knurls 14 TPI	Coarse Left				
	Cat. Nr.	K58/CL	K34/CL	K01/CL	K20/CL
	Ordering Nr.	12850	12950	13050	13150
	Coarse Right				
	Cat. Nr.	K58/CR	K34/CR	K01/CR	K20/CR
	Ordering Nr.	12851	12951	13051	13151
	Coarse Straight				
	Cat. Nr.	K58/CS	K34/CS	K01/CS	K20/CS
	Ordering Nr.	12852	12952	13052	13152
	Coarse Diamond				
	Cat. Nr.	K58/CD	K34/CD	K01/CD	K20/CD
	Ordering Nr.	12853	12953	13053	13153
Medium Pitch Knurls 21 TPI	Medium Left				
	Cat. Nr.	K58/ML	K34/ML	K01/ML	K20/ML
	Ordering Nr.	12800	12900	13000	13100
	Medium Right				
	Cat. Nr.	K58/MR	K34/MR	K01/MR	K20/MR
	Ordering Nr.	12801	12901	13001	13101
	Medium Straight				
	Cat. Nr.	K58/MS	K34/MS	K01/MS	K20/MS
	Ordering Nr.	12802	12902	13002	13102
	Medium Diamond				
	Cat. Nr.	K58/MD	K34/MD	K01/MD	K20/MD
	Ordering Nr.	12803	12903	13003	13103
Fine Pitch Knurls 33 TPI	Fine Left				
	Cat. Nr.	K58/FL	K34/FL	K01/FL	K20/FL
	Ordering Nr.	12830	12930	13030	13130
	Fine Right				
	Cat. Nr.	K58/FR	K34/FR	K01/FR	K20/FR
	Ordering Nr.	12831	12931	13031	13131
	Fine Straight				
	Cat. Nr.	K58/FS	K34/FS	K01/FS	K20/FS
	Ordering Nr.	12832	12932	13032	13132
	Fine Diamond				
	Cat. Nr.	K58/FD	K34/FD	K01/FD	K20/FD
	Ordering Nr.	12833	12933	13033	13133

Knurls have rust inhibiting black oxide finish



Dimensional Table

Knurl Size	Pitch (TPI)	Diameter	Face Width	Hole Diameter	Thickness
5/8"	14, 21, 33	5/8"	3/16"	7/32"	5/16"
3/4"	14, 21, 33	3/4"	1/4"	1/4"	3/8"
1"	14, 21, 33	1"	11/32"	5/16"	3/8"
20 mm	0,6, 1, 1,5 mm	20 mm	7 mm	6 mm	8 mm

ESP Buriles y Cuchillas de corte FR Barreaux traités & Lames à tronçonner

Square Toolbits and Cut Off Blades are available in two grades

Grade A: Cobalt Steel – High Speed Steel with 5% Cobalt

These are suitable for use on tougher materials and all heavy duty applications that require an increased depth of cut

Addition of cobalt gives optimum hardness and toughness thus improving the cutting performance

These are suitable for use on lathe machines, planers, shapers etc.

Grade B: High Speed Steel

These show exceptional results on mild steel, alloy steels and tool steel and are superior finishing tools useful in production processes



Toolbits have 15° composite angled ends. This helps minimize initial grinding

Ordering Information - Tool Bits - Imperial Sizes

Cat Nr. Grade A	Ordering Nr. Grade A	Cat. Nr. Grade B	Ordering Nr. Grade B	Square Size	Length
				Inch	Inch
TB/0-1	12301	TB/H/0-1	12501	3/32	2-1/2
TB/0-2	12302	TB/H/0-2	12502	3/32	3
TB/0-3	12303	TB/H/0-3	12503	1/8	3
TB/0-4	12304	TB/H/0-4	12504	1/8	4
TB/0-5	12305	TB/H/0-5	12505	5/32	3
TB/0-6	12306	TB/H/0-6	12506	5/32	4
TB/0-7	12307	TB/H/0-7	12507	3/16	3
TB/0-8	12308	TB/H/0-8	12508	3/16	4
TB/0-9	12309	TB/H/0-9	12509	3/16	6
TB/0-10	12310	TB/H/0-10	12510	1/4	2
TB/0-11	12311	TB/H/0-11	12511	1/4	3
TB/0-12	12312	TB/H/0-12	12512	1/4	4
TB/0-13	12313	TB/H/0-13	12513	1/4	6
TB/0-14	12314	TB/H/0-14	12514	1/4	8
TB/0-15	12315	TB/H/0-15	12515	5/16	2
TB/0-16	12316	TB/H/0-16	12516	5/16	3
TB/0-17	12317	TB/H/0-17	12517	5/16	4
TB/0-18	12318	TB/H/0-18	12518	5/16	6
TB/0-19	12319	TB/H/0-19	12519	5/16	8
TB/0-20	12320	TB/H/0-20	12520	3/8	2
TB/0-21	12321	TB/H/0-21	12521	3/8	3
TB/0-22	12322	TB/H/0-22	12522	3/8	4
TB/0-23	12323	TB/H/0-23	12523	3/8	6
TB/0-24	12324	TB/H/0-24	12524	3/8	8

Imperial Sizes

Cat Nr. Grade A	Ordering Nr. Grade A	Cat. Nr. Grade B	Ordering Nr. Grade B	Square Size	Length
				Inch	Inch
TB/0-25	12325	TB/H/0-25	12525	3/8	10
TB/0-26	12326	TB/H/0-26	12526	1/2	3
TB/0-27	12327	TB/H/0-27	12527	1/2	4
TB/0-28	12328	TB/H/0-28	12528	1/2	6
TB/0-29	12329	TB/H/0-29	12529	1/2	8
TB/0-30	12330	TB/H/0-30	12530	1/2	10
TB/0-31	12331	TB/H/0-31	12531	5/8	4
TB/0-32	12332	TB/H/0-32	12532	5/8	6
TB/0-33	12333	TB/H/0-33	12533	5/8	8
TB/0-34	12334	TB/H/0-34	12534	3/4	4
TB/0-35	12335	TB/H/0-35	12535	3/4	6
TB/0-36	12336	TB/H/0-36	12536	3/4	8
TB/0-37	12337	TB/H/0-37	12537	1	6
TB/0-38	12338	TB/H/0-38	12538	1	8
TB/0-39	12339	TB/H/0-39	12539	1/8	2-1/2
TB/0-40	12340	TB/H/0-40	12540	3/16	2-1/2
TB/0-41	12341	TB/H/0-41	12541	1/4	2-1/2
TB/0-42	12342	TB/H/0-42	12542	5/16	2-1/2
TB/0-43	12343	TB/H/0-43	12543	1/8	1-1/4
TB/0-44	12344	TB/H/0-44	12544	3/16	1-1/4
TB/0-45	12345	TB/H/0-45	12545	1/4	1-1/4
TB/0-46	12346	TB/H/0-46	12546	5/16	1-1/4
TB/0-47	12347	TB/H/0-47	12547	3/4	5
TB/0-48	12348	TB/H/0-48	12548	1	7



Cut off Blades have accurately ground bevel section with clearance angle at cutting edge

Ordering Information - Cut Off Blades

Cat. Nr. Grade A	Ordering Nr. Grade A	Cat. Nr. Grade B	Ordering Nr. Grade B	Size	
				Inch	mm
COB/0-1	12201	COB/H/0-1	12221	1/16 x 5/16 x 3-1/2	1.52 x 7.93 x 88.9
COB/0-2	12202	COB/H/0-2	12222	3/32 x 1/2 x 4	2.38 x 12.7 x 101.6
COB/0-3	12203	COB/H/0-3	12223	3/32 x 5/8 x 5	2.38 x 15.8 x 127
COB/0-4	12204	COB/H/0-4	12224	1/8 x 3/4 x 6	3.18 x 19.05 x 152.4
COB/0-5	12205	COB/H/0-5	12225	1/8 x 7/8 x 6	3.18 x 22.2 x 152.4
COB/0-6	12206	COB/H/0-6	12226	3/16 x 1 x 6	4.76 x 25.4 x 152.4
COB/0-7	12207	COB/H/0-7	12227	3/16 x 1-1/8 x 6	4.76 x 28.57 x 152.4

Ordering Information - Toolbits - Metric Sizes

Cat. Nr. Grade A	Ordering Nr. Grade A	Cat. Nr. Grade B	Ordering Nr. Grade B	Square Size	Length
				mm	mm
TB/3-75M	12400	TB/H/3-75M	12600	3	75
TB/3-80M	12401	TB/H/3-80M	12601	3	80
TB/3-100M	12402	TB/H/3-100M	12602	3	100
TB/4-75M	12403	TB/H/4-75M	12603	4	75
TB/4-100M	12404	TB/H/4-100M	12604	4	100
TB/5-63M	12405	TB/H/5-63M	12605	5	63
TB/5-75M	12406	TB/H/5-75M	12606	5	75
TB/5-80M	12407	TB/H/5-80M	12607	5	80
TB/5-100M	12408	TB/H/5-100M	12608	5	100
TB/5-150M	12409	TB/H/5-150M	12609	5	150
TB/6-50M	12410	TB/H/6-50M	12610	6	50
TB/6-63M	12411	TB/H/6-63M	12611	6	63
TB/6-75M	12412	TB/H/6-75M	12612	6	75
TB/6-100M	12414	TB/H/6-100M	12614	6	100
TB/6-150M	12415	TB/H/6-150M	12615	6	150
TB/6-200M	12416	TB/H/6-200M	12616	6	200
TB/8-50M	12417	TB/H/8-50M	12617	8	50
TB/8-63M	12418	TB/H/8-63M	12618	8	63
TB/8-75M	12419	TB/H/8-75M	12619	8	75
TB/8-80M	12420	TB/H/8-80M	12620	8	80
TB/8-100M	12421	TB/H/8-100M	12621	8	100
TB/8-150M	12422	TB/H/8-150M	12622	8	150

Metric Sizes

Cat. Nr. Grade A	Ordering Nr. Grade A	Cat. Nr. Grade B	Ordering Nr. Grade B	Square Size	Length
				mm	mm
TB/8-200M	12423	TB/H/8-200M	12623	8	200
TB/10-50M	12424	TB/H/10-50M	12624	10	50
TB/10-75M	12426	TB/H/10-75M	12626	10	75
TB/10-80M	12427	TB/H/10-80M	12627	10	80
TB/10-100M	12428	TB/H/10-100M	12628	10	100
TB/10-150M	12429	TB/H/10-150M	12629	10	150
TB/10-200M	12430	TB/H/10-200M	12630	10	200
TB/10-250M	12431	TB/H/10-250M	12631	10	250
TB/12-75M	12432	TB/H/12-75M	12632	12	75
TB/12-100M	12434	TB/H/12-100M	12634	12	100
TB/12-150M	12435	TB/H/12-150M	12635	12	150
TB/12-200M	12436	TB/H/12-200M	12636	12	200
TB/12-250M	12437	TB/H/12-250M	12637	12	250
TB/16-100M	12438	TB/H/16-100M	12638	16	100
TB/16-150M	12439	TB/H/16-150M	12639	16	150
TB/16-200M	12440	TB/H/16-200M	12640	16	200
TB/20-100M	12441	TB/H/20-100M	12641	20	100
TB/20-150M	12442	TB/H/20-150M	12642	20	150
TB/20-200M	12443	TB/H/20-200M	12643	20	200
TB/25-150M	12444	TB/H/25-150M	12644	25	150
TB/25-200M	12445	TB/H/25-200M	12645	25	200

77 WHEEL DRESSERS & CUTTERS - (WHEEL DRESSERS)

WD

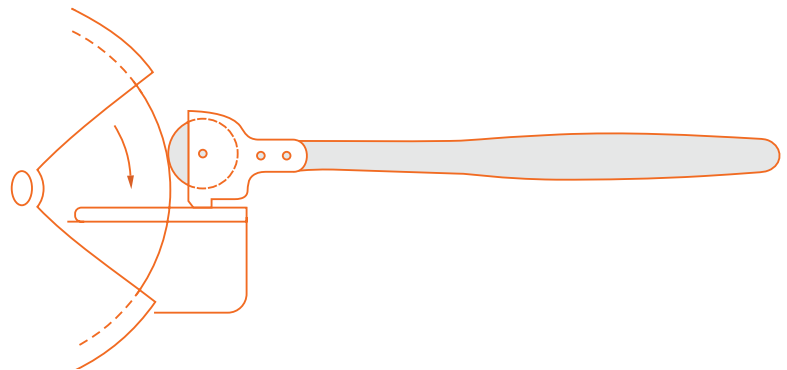
ESP Reafilador de muela abrasiva y cortadoras FR Dresseur et couteaux à lame circulaire DE Rad Scherblocke

This range of Wheel Dressers are designed for dressing, truing, sharpening and removing glaze from solid abrasive wheels. Body is powder coated. The cast iron handle is ergonomically designed for comfortable grip

The cutters have star shaped teeth that expose new grains and provide a fresh unloaded surface on wheels. Cutters are also available as spares - set of 4



<WheelDresserCutter



Ordering Information - Wheel Dressers

Cat. Nr	Ordering Nr.	Size	Dresser wheel range		Dresser Length		Cutter Diameter	
			Inch	mm	Inch	mm	Inch	mm
WD/00	12070	0	20	500	10-3/16	255	1-1/4	32
WD/01	12071	1	30	750	10-3/4	270	1-1/2	38
WD/02	12072	2	Large Sizes	Large Sizes	12-3/4	320	2-3/8	60

Ordering Information - Wheel Dresser Cutters

Cat. Nr.	Ordering Nr.	Cutter Diameter	
		Inch	mm
WDC/00	12080	1-1/4	32
WDC/01	12081	1-1/2	38
WDC/02	12082	2-3/8	60

Dressing the wheel of a Bench Grinder



По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231	Казань (843)206-01-48	Новокузнецк (3843)20-46-81	Смоленск (4812)29-41-54
Архангельск (8182)63-90-72	Калининград (4012)72-03-81	Новосибирск (383)227-86-73	Сочи (862)225-72-31
Астрахань (8512)99-46-04	Калуга (4842)92-23-67	Омск (3812)21-46-40	Ставрополь (8652)20-65-13
Барнаул (3852)73-04-60	Кемерово (3842)65-04-62	Орел (4862)44-53-42	Сургут (3462)77-98-35
Белгород (4722)40-23-64	Киров (8332)68-02-04	Оренбург (3532)37-68-04	Тверь (4822)63-31-35
Брянск (4832)59-03-52	Краснодар (861)203-40-90	Пенза (8412)22-31-16	Томск (3822)98-41-53
Владивосток (423)249-28-31	Красноярск (391)204-63-61	Пермь (342)205-81-47	Тула (4872)74-02-29
Волгоград (844)278-03-48	Курск (4712)77-13-04	Ростов-на-Дону (863)308-18-15	Тюмень (3452)66-21-18
Вологда (8172)26-41-59	Липецк (4742)52-20-81	Рязань (4912)46-61-64	Ульяновск (8422)24-23-59
Воронеж (473)204-51-73	Магнитогорск (3519)55-03-13	Самара (846)206-03-16	Уфа (347)229-48-12
Екатеринбург (343)384-55-89	Москва (495)268-04-70	Санкт-Петербург (812)309-46-40	Хабаровск (4212)92-98-04
Иваново (4932)77-34-06	Мурманск (8152)59-64-93	Саратов (845)249-38-78	Челябинск (351)202-03-61
Ижевск (3412)26-03-58	Набережные Челны (8552)20-53-41	Севастополь (8692)22-31-93	Череповец (8202)49-02-64
Иркутск (395)279-98-46	Нижний Новгород (831)429-08-12	Симферополь (3652)67-13-56	Ярославль (4852)69-52-93
Россия (495)268-04-70	Киргизия (996)312-96-26-47	Казахстан (7172)727-132	