

NETALWORKING FLUIDOS DE CORTE FLUIDES DE COUPE









ELECTROFILM ESPAÑOL



TB	Water soluble cutting fluid for machining steel and all types of metals. Provides good lubrication and cooling.
MINERAL BASED	Bactericide. Protects against corrosion. Releases concrete.
SOLUBLE	TB ESPECIAL: <i>Milky white solution. Greater emulsion stability. Stronger resistance to hard waters</i>
CUTTING FLUID	TB ESPECIAL LD650-1: <i>Milky white solution for very hard water (up to 50°F).</i>
TS SEMISYNTHETIC SOLUBLE CUTTING FLUID	Water soluble semisynthetic cutting fluid with excellent detergent properties. For all types of machining with steel, metals, yellow metals, copper alloys, different types of aluminium. Free from secondary amines and nitrites

Water soluble synthetic cutting fluid for medium to low intense machining operations including grinding and sharpening. Optimal antirust and bacteriostatic protection. Used diluted in water with concentrations in proportion to the required machining operation to be performed. Free from nitrites, chlorides, phosphorous, sulphur and boron. Allows perfect visibility of workpieces while machining

MACHINING OPERATIONS	PRODUCT TYPE	DIILLING	THREADING	DRILLING	BROACHING	CUTTING	REAMING	GRINDING	PUNCHING	DIE-CUTTING	DEEP DRAWING	BENDING	DRAWING	RELEASING	FORGING STAMPING	EDM	METAL THICKNESS (mm)
ТВ	WHITE EMULSION	\star	\star	\star	\star	\star	*										
TB ESPECIAL	WHITE EMULSION - HARD WATER	*	\star	*	*	\star	*										
TS	TRANSPARENT EMULSION	\star	\star	*	\star	\star	\star										
TV & TV ESPECIAL	TRANSPARENT EMULSION		\star			\star	\star	\star									

*For workpiece materials, please refer to the table on the last page.

TV ESPECIAL

CUTTING FLUID

SYNTHETIC



AE-INOX 9	Lubricant for machining ferrous r	metals, especially stainles	ss steel. Strong co	ooling power.												
		Viscosity (cSt) 40°0	D: 46													
COAL	non-ferrous materials; aluminium	Pure oils for deep drawing, punching, die-cutting, sheet metal profiling, cutting and threading of both ferrous and non-ferrous materials; aluminium, copper and its alloys. Sheet metal thicknesses above 2.5mm. Optimal cooling and anticorrosion properties. Protects both workpiece and tool. Obtains superb finishes. Easy to use and to remove, even with water.														
	COAL 18 COAL 46 CO			COAL CP-AL	COAL CP-AL 150											
	20 46	Viscosity (c	St) 40°C 11	12	150											
DL - 3	Lubricant developed for cutting High flash point.	hard semi-precious stone	es (quartz) used ir	n jewellery. Optimal	lubricating properties.											
ELECTROCUT	Formulated with very pure para Maintains workpieces visible du strength. Quickly decanters chip	uring machining. EDM c														
FCD	Universal Cutting Fluid for direct of hobbing, die-cutting Allows for Hobbing Machine Manufacturer evaporable and can be applied b	r perfect finishes both on rs: MATRIX, MAAG, HU	surface and in de	pth. Recommended	d by the following Gear											
	FCD Viscositv (cSt) 40°C: 28	, ,		Viscosity (cSt) 40°C:	15											
METALCUT P	Cutting Oil for direct use in toug		and broaching. F													
	deep drilling, gear hobbing, colo strength. Very chemically stable.	d sawing, NOT indicat														
		Viscosity (cSt) 40%	Dr. 18													
MULTILCUT L	Cutting fluid for direct use in all and brass. Threading, drilling, c drawing. Allows for perfect finish	old sawing, automatic tu	urning, milling, bru													
		Viscosity (cSt) 40%	D: 19													
MULTILCUT P	Cutting fluid for direct use in to automatic turning, etc. Indicated Formulated with polarized extrem	d for aluminium, gold, c	opper, bronze ar	nd brass. Low mad												
		Viscosity (cSt) 40%	D: 32													
MULTILCUT REC	Very fluid cutting oil for direct use polishing.High speed machining Protects steel, copper and alumi	g operations. Can be us														

Viscosity (cSt) 40°C: 6

	PRODUCT TYPE	BNITTING	THREADING	DRILLING	BROACHING	CUTTING	REAMING	GRINDING	PUNCHING	DIE-CUTTING	DEEP DRAWING	BENDING	DRAWING	RELEASING	Forging Stamping	EDM	METAL THICKNESS (mm)
AE	OIL		\star			*			\star	\star	\star	\star	*				2.5 thick 50 deep
AE-ALU	VANISHING OIL								\star	\star	\star	*					1.5
AE-INOX-9	VANISHING OIL	\star	\star	\star					\star	\star	\star	*	*				2.5 thick 10 deep
AE-PLUS, AE-PLUS 600-SA, AE-PLUS 220	OIL	*	*		*	*			*	*	*	*	*				5 thick 40 deep
AE-1+DNI	OIL								\star	\star	\star	\star	\star		\star		4
COAL 25-34	OIL								\star	\star	\star	\star					0.5 thick 6 deep
COAL 18,220	OIL		\star			*			*	\star	\star	*	\star				2.5
COAL CP-ALP2	OIL		\star			*			*	\star	*	*	*				2
DL-3	VANISHING OIL					\star		\star									
ELECTROCUT 100, 140	SOLVENTS															\star	2
FCD	OIL	\star	\star	\star	\star	*	*		\star	\star		*	*				
FCD-15	VANISHING OIL	\star	\star	\star	\star	\star	\star	\star	\star	\star	\star	*					0.4mm stainless steel
METALCUT P	OIL	\star	\star	\star	\star												
MULTICUT L	OIL		\star	\star													
MULTICUT P	OIL	\star	*	\star	\star												
MULTICUT REC	OIL							\star									

 $\ensuremath{^{\ast}}\xspace{For workpiece materials}, please refer to the table on the last page.$

METALWORKING OILS

ELECTROFI



Viscosity (cSt) 40°C: 32

	PRODUCT TYPE	MILLING	THREADING	DRILLING	BROACHING	CUTTING	REAMING	GRINDING	PUNCHING	DIE-CUTTING	DEEP DRAWING	BENDING	DRAWING	RELEASING	FORGING STAMPING	EDM	METAL THICKNESS (mm)
AE	OIL		\star			\star			\star	\star	\star	\star	\star				2.5 thick 50 deep
AE-ALU	VANISHING OIL								\star	\star	\star	\star					1.5
AMP-XL y AMP	VANISHING OIL					\star			\star	\star	\star	\star					0.5
COAL 25-34	OIL								*	\star	*	*					0.5 thick 6 deep
DALU-220,1500	OIL					\star			*	\star	\star	\star	\star				5
DAZA	OIL													\star		\star	
DAZA - ACU	AQUEOUS FLUID													\star			
DAZA 1,3,6,7	VANISHING OIL					\star	\star	\star	\star	\star	\star	\star		\star			2.5
MC	VANISHING OIL																
MULTICUT BIO	OIL	\star	\star	\star						\star	\star						

*For workpiece materials, please refer to the table on the last page.





DAZA		uid. Protects against corrosion Zamak injections. High flash po		eleases and lubricates in high er based and non-flammable.
		Viscosity (cSt) 40°C: 5	
DESCOFORM	Releases hardened conc used in asphalt/bituminor		or metal) and from construction	on tools. Also releases moulds
	DESCOFORM	DESCOFORM DIRA	DESCOFORM DIRM	DESCOFORM DMB
	Viscosity (cSt) 40°C: 22	Viscosity (cSt) 40°C: 5	Viscosity (cSt) 40°C: 5	Viscosity (cSt) 40°C: 17
DG - 19	Does not produce fumes	spension lubricant. Releases m s. For stainless steel casting u oes not produce fumes. Easy	se elesa® DG-19 - Variedad	
	D	G -19	19 Va	ariedad 2
	L	IQUID	F	ASTE
FSA		and rubber forming. Applicable ct spray use. FDA 21CFR 178		Available in spray. elesa® FS /
Ref. 488	Releases artificial stone.	Especially indicated for rubber	moulds. Elesa REF. 488-D is	a ready-to-use variant.
16 - CR		and release agent. Highly stat moulds used in glass casting outtery moist coating.		
		Viscosity (cSt) 40	рес: 46	
18	graphite. Wide scope of	etic lubricating fluid. Leaves applications. Main uses are in eavy stress loads, such as plair	forging and stamping. Lubric	ates mechanisms operating a
	18F		18B	18BB
	Viscosity (cSt) 40°C: >	70 Viscosity (′cSt) 40°C: >320	Fluid paste
27		spension fluid grease for relea regular and clean surfaces. D		

	PRODUCT TYPE	MILLING	THREADING	DRILLING	BROACHING	CUTTING	REAMING	GRINDING	PUNCHING	DIE-CUTTING	DEEP DRAWING	BENDING	DRAWING	RELEASING	Forging Stamping	EDM	METAL THICKNESS (mm)
DAZA	OIL													\star		\star	
DAZA - ACU	VANISHING OIL													\star			
DAZA - 3	OIL					\star	\star	\star	\star	\star	\star	\star		\star			
DG -19, DG - 19 VARIEDAD - 2	VANISHING OIL										*			*	*		
DG - 19 PULVERIZABLE	OIL										\star						
REF. 488	OIL													\star			
16 - CR	OIL - GRAPHITE													\star	\star		2.5 thick 50 deep
18	OIL													\star	\star		
27	GREASE+GRAPHITE													\star	\star		4

* For workpiece materials, please refer to the table on the last page.

DQI-1	Biodegradable water based degreaser. Cleans metal surfaces, equipment and tanks. Provides temporary protection of surfaces against corrosion.
DQI-9	Quick drying pH neutral protective liquid varnish coating for machined worked pieces. Hermitically seals all types of material. Forms a hard protective shrink-wrap type PVC coating, easily peeled off when coating is no longer required
EM 21	Extreme pressure gear oil. Formulated to support heavy stress loads and strong shocks in gear drives such as cylindrical, conic, helical, worm, etc. Contains antioxidant, anticorrosion and antifoam additives for extra protection. Suitable for bronze mechanisms. US Steel 224; AGMA 9005.E02 (EP) ; DIN 51.517 PART. 3 (CLP-46 to 680); DAVID BROWN S1.53.101 (E); Viscosity in accordance with ISO 3448 & DIN 51519; Classification ISO L-CKC (46 – 680); CINCINNATI MILACRON P47 & P50.
HM *	Ultra-refined mineral based oils with high concentrations of antioxidant, anti-wear, antirust and antifoam additives for extra protection. AFNOR NFE 48603-HM; DIN 51524 parts 2 & 3 (HLP); CINCINNATI MILACRON P-68, 69, 70 ; DENISON HF-2 & HF-0 ; VICKERS M-2952-S (including : M-2950-S mobile hydraulic systems & I-286-S industrial hydraulic systems).
HV & HR *	Developed for hydraulic systems and circuits with hydrostatic systems. Strong anti-wear protection. Low pour point for operating in winter. <i>AFNOR NFE</i> 48603-HM & HR; ISO 11158 HM & HR; DIN 51524 parts 1, 2 & 3 (HLP & HVLP ; CINCINNATI LAMB-MICALCRON P-68, 69, 70; DENISON HF-2, HF-1 & HF-0; VICKERS M-2952-S (including: M-2950-S mobile hydraulic systems & I-286-S3 industrial hydraulic systems); ISO/TR 3498 category ISO-L HM; Homologated by GRUPO DANOBAT for ISO 32 to 150; ISO/TR 3498 category ISO-L FD; Homologated by GRUPO DANOBAT for ISO 2 to 22.
IV-EXTRA *	Hydraulic controls and hydrostatic systems. Hydraulic systems requiring a low variation between viscosity, temperature and high pressures. <i>AFNOR NFE 48603-HV; DIN 51524 parts 2 & 3 (HVLP); CINCINNATI MILACRON P-68, 69, 70; DENSION HF-2 & HF-0;</i> <i>VICKERS M-2952-S mobile hydraulic systems & I-286-S industrial hydraulic systems).</i>
HLPD *	Ultra-refined mineral based hydraulic fluid developed for hydraulic systems and circuits with hydrostatic systems. Formulated for systems with risk of contamination by water, soluble cutting fluids, cooling fluids, contaminating agents or deposits. Strong detergent and dispersant capacity to directly absorb water. Especially recommended for machine tools. DIN 51524 Part.2 (Type HLP) ; DIN 51517 Part. 3 (CLP); MAN N-698-HLPD
HIDRAULIC HFC (Biodegradable)	Fire resistant hydraulic fluid. Resists corrosion. Chemically stable. Non-toxic. Biodegradable. Indicated for use in high pressure steel milling, aluminium and plastic extrusion equipment.
HIDRAULIC HFDU (Biodegradable)	Fire resistant hydraulic fluid. Highly resistant to corrosion. Chemically stable. Non-toxic. Biodegradable. Indicated for use in high pressure steel milling, aluminium and plastic extrusion equipment. HFDU type. Maintenance free.
HAND WASH PASTE	Degreaser in form of paste. Efficiently cleans hands eliminating grease, dyes, coals and sludge.
REFRACTOMETER	Controls emulsion concentrations of soluble cutting fluids and coolants. Helps to obtain the correct oil concentration for machining operations.
SW *	Anti-Stick-Slip machine tool guideway and slideway fluid. Excellent lubricating, EP and adhesive properties. Also indicated for hydraulic circuits and heavy gear drive systems.
SUPERPLUS COMPLEX TECH	Lithium Complex Extreme Pressure Grease. Highly resistant to oxidation. Strongly protects mechanisms. Industrial and automotive use.
7011-SBR	Lubricating grease for mechanisms operating at extreme speeds and temperatures, including -60°C. Especially indicated for milling heads. Speed factor: 1,000,000.

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*Homologated by GRUPO DANOBAT



WORPIECE MATERIALS



PRODUCT Image: Propussion of the state of t																			
A A	PRODUCT	STEEL	STAINLESS STEEL	COPPER (Cu)	ALLOY (Cu)	ALUMINIUM (A)	ALLOY (A)	ZINC (Zn)	ALLOY (Zn)	BRASS	FERROUS METAL	NON-FERROUS METAL	GALVANIZED	ZAMAK (Injected Casting)	CONCRETE	ACRYLIC GLASS	STONE	GLASS	VISCOSITY 40°C CST
AF-ALU N <th< td=""><td>AE</td><td>\star</td><td></td><td>\star</td><td>\star</td><td>\star</td><td>\star</td><td></td><td></td><td>\star</td><td>*</td><td>\star</td><td></td><td></td><td></td><td></td><td></td><td></td><td>85</td></th<>	AE	\star		\star	\star	\star	\star			\star	*	\star							85
MAX-MOX M <t< td=""><td>AE-1+DNI</td><td>\star</td><td>\star</td><td>\star</td><td>*</td><td></td><td></td><td></td><td></td><td></td><td>*</td><td>*</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	AE-1+DNI	\star	\star	\star	*						*	*							
ALF-PLUS 600 SA, ····· ····· ····· ····· ····· ····· ······ ······ ······ ······ ······· ········· ··········· ····································	AE-ALU					\star	\star												53,1 (20°C)
AAE-PLUS 220 AMP-XL Y AMP * <	AE-INOX-9	\star	*								*								30
AMP-XLy AMP *	AE-PLUS, AE-PLUS 600 SA, AE-PLUS 220	\star																	650,220, 150, 600
COAL 18,220 * <	AMP-XL y AMP	\star		\star	\star	\star	\star			\star	*	*	\star						
COALCP-ALP2 * <th< td=""><td>COAL 25-34</td><td>\star</td><td></td><td>\star</td><td>\star</td><td>\star</td><td>\star</td><td>*</td><td>*</td><td></td><td>*</td><td>*</td><td></td><td></td><td></td><td></td><td></td><td></td><td>46</td></th<>	COAL 25-34	\star		\star	\star	\star	\star	*	*		*	*							46
DALU A	COAL 18,220	\star		\star	*	\star	\star	*	*	\star	*		\star						18,220
DAZA Image: mark mark mark mark mark mark mark mark	COAL CP-ALP2	\star		\star	\star	\star	\star	\star	*	\star	*	\star	\star						22, 11
DAZA - 3 *<	DALU	\star				*	\star			\star	*	*	\star	*					220, 1500
DAZA-1.3.6,7 I <t< td=""><td>DAZA</td><td></td><td></td><td></td><td></td><td>*</td><td>\star</td><td>*</td><td>*</td><td></td><td></td><td></td><td></td><td>*</td><td></td><td></td><td></td><td></td><td>5</td></t<>	DAZA					*	\star	*	*					*					5
Distribution D	DAZA - 3	*		*	*	*	*			\star	*	*							1,1
DG - 19 PULVERIZABLE***						*	*	*	*					*					5
DG - 19 PULVERIZABLE***	DG - 19, DG - 19 Variedad - 2	\star	*	\star	*	\star	\star			\star								\star	PASTE
FCD *		\star	\star	\star	*	\star	\star			\star								\star	FLUID
FCD - 15 *<	DL - 3																SEMI-PRECIOUS	\star	5
FCD - 15 *<	FCD	\star	*			*	*				*								28
TB y TB - ESPECIAL *	FCD - 15	\star	*			\star	\star				*								15
TV *	MC	\star	\star	\star	*	\star	\star	*	*	\star	*	\star	\star						2
TV - ESPECIAL * <	TB y TB - ESPECIAL	\star	*	\star	*	\star	\star	*	\star	\star	*	\star	\star		\star				-
TS *	TV	\star	*										\star			\star		\star	-
16 - CR * </td <td>TV - ESPECIAL</td> <td>\star</td> <td>*</td> <td>\star</td> <td>*</td> <td>\star</td> <td>\star</td> <td></td> <td></td> <td>\star</td> <td>*</td> <td>*</td> <td>\star</td> <td></td> <td></td> <td>\star</td> <td></td> <td>\star</td> <td>-</td>	TV - ESPECIAL	\star	*	\star	*	\star	\star			\star	*	*	\star			\star		\star	-
18 \star	TS	\star	*	\star	*	\star	\star	*	*	\star	*	\star	\star			\star			-
27 \star	16 - CR	\star	*							\star								\star	46
REF. 488 Image: Constraint of the cons	18	\star	*							\star								\star	80
DALU-220, 1500 *	27	\star	\star							\star								\star	NLGI-1
ELECTROCUT * * i <th<< td=""><td>REF. 488</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>*</td><td></td><td></td></th<<>	REF. 488																*		
METALCUT-P \star <td>DALU-220, 1500</td> <td>\star</td> <td>*</td> <td></td> <td></td> <td>\star</td> <td>\star</td> <td>*</td> <td>\star</td> <td></td> <td>*</td> <td></td> <td>\star</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>200, 1000</td>	DALU-220, 1500	\star	*			\star	\star	*	\star		*		\star						200, 1000
MULTICUT-P \star <th< td=""><td>ELECTROCUT</td><td>\star</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>\star</td><td>\star</td><td></td><td></td><td></td><td></td><td></td><td></td><td>2,5</td></th<>	ELECTROCUT	\star									\star	\star							2,5
MULTICUT-L \star MULTICUT-REC \star	METALCUT-P	\star	\star			\star	\star	\star	\star	\star	\star								18
MULTICUT-REC \star \star \star \star \star \star \star \star \bullet	MULTICUT-P	*	\star	\star	*	*	\star			*									32
MULTICUT-REC \star \star \star \star \star \star \star \star \bullet	MULTICUT-L	\star	*	\star	*	*	\star			\star	\star								19
MULTICUT-BIO \star	MULTICUT-REC	*	\star	\star	*	*	\star			\star	\star								6
	MULTICUT-BIO	\star										\star							32

Distributor

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