



EXCELLENCE IN
ENGINEERED ALLOYS

MATERIAL SELECTION GUIDE

For Corrosion Resistance
Wear Resistance
Electrical and Thermal Conductivity

www.ampcometal.com





	Nearest International Standards					Nominal Chemical Composition (Remainder Cu)							Mechanical & Physical Properties							Usage Guideline							
AMPCO Reference	ISO	EN	DIN	ASTM	AMS	Sn	Zn	Pb	Al	Fe	Ni	Mn	D Kg/dm ³	Rm MPa	Rp 0,2 MPa	A ₅ %	HBW 10/3000	Thermal Conductivity W/m.K	Linear Expansion Coefficient 10 ⁻⁶ /K	Coefficient of Friction Unlubricated	Need for Lubrication	Average Speed m/s	Average Load MPa				
AMPCO® 8	AMPCO METAL Specification					0.25			6,5	2,5			7.95	552	283	40	153	54	16	0.17	Moderate 🔴	1.5	85				
AMPCO® 18								10,5	3,5			7.45	724	365	14	192	63	16	0.18	Moderate 🔴	1.5	100					
AMPCO® 18.23								10,5	3,5			7.45	758	386	16	207	59	16	0.18		1.5	100					
AMPCO® 21								13,1	4,4		2	7.21	758	420	1	286	46	16	0.21	Moderate 🔴	0.7	115					
AMPCO® 22								14,1	4,7		2	7.06	724	427	0.5	332	42	16	0.25		Moderate 🔴	0.6	120				
AMPCO® 25					Proprietary							6.93	R _{mc} 1580	R _{R 0.1} 710	0.2	364	33	16	0.30	Moderate 🔴	0.5	125					
AMPCO® 26												6.93	R _{mc} 1601	R _{R 0.1} 720	0	420	33	16	0.32	Moderate 🔴	0.4	130					
AMPCO® 45								4640 4880					10	2,5	5	1.5	7.53	814	517	15	228	46	16.2	0.23	High 🔴	1.5	90
AMPCO® M4								4590 4881					10, 5	4,8	5	1.5	7.45	1000	793	8	260/300	42	16	0.23	High 🔴	1	330

	Cr	Be	Zr	Si	Co	Ni	Mn	D Kg/dm ³	Rm MPa	Rp 0,2 MPa	A ₅ %	HBW 10/3000	Thermal Conductivity W/m·K			Electrical Conductivity % IACS	RWMA Class
													20°C	100°C	200°C		
 AMPCOLOY [®] ALLOYS	AMPCOLOY [®] 83	CuBe2	CW 101C	2.1247	C17200												
	AMPCOLOY [®] 944	AMPCO METAL Specification				Alloys without Beryllium											
	AMPCOLOY [®] 940																
	AMPCOLOY [®] 88	CuCoNiBe	CW 104C	~ 2.1285	~ C17510												
	AMPCOLOY [®] 95	CuCoNiBe	CW 103C	~ 2.1285	~ C17510												
	AMPCOLOY [®] 972	CuCrZr	CW 106C	2.1293	C18150												

Please ask us about your other copper alloy requirements.

The above are nominal values. If specific minimum figures are required, please contact your local AMPCO METAL representative.

Product selection tool

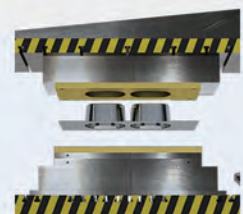


The product selection tool is an app that allows you to mechanical properties, physical properties, industries technical expert's assistance.

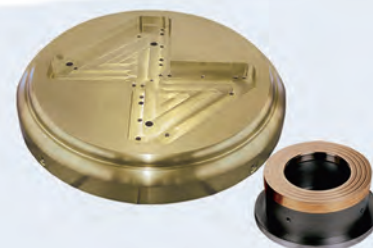
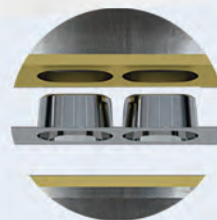
find the best alloy for your application based on key parameters such as or end-use applications. You can compare several alloys and request our

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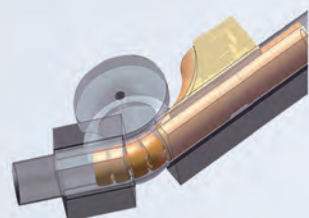
Wear & Corrosion Resistant Aluminum Bronzes



Deep Drawing



AMPCO® 22/25/26



Tube Bending



AMPCO® 18.23/M4



AMPCO® 18/21/22/25



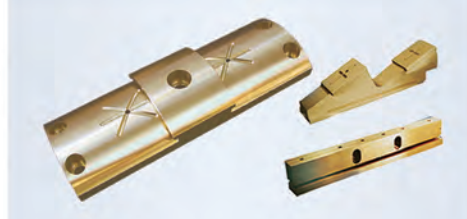
Tube Forming



AMPCO® 22/25/26



Rollercoasters
AMPCO® 18



Steel Mill
AMPCO® 18/M4



General Engineering
AMPCO® 18/21/M4



Applications in Hydrogen
Atmosphere
AMPCO® 18
AMPCOLOY® 83



Watchmaking
AMPCO® 18

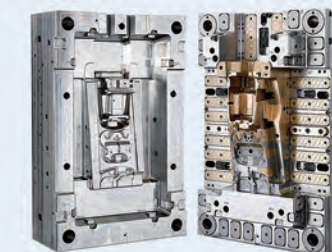
High-Conductivity Alloys



Plastic Processing



AMPCOLOY® 940/944/83/95



Aerospace & Offshore

AMS 4640/4590/4880/4881

AMPCO® 45 AMPCOLOY® 83



Resistance Welding



AMPCOLOY® 972/940/944/95/83



Die Casting
AMPCOLOY® 940/944/95



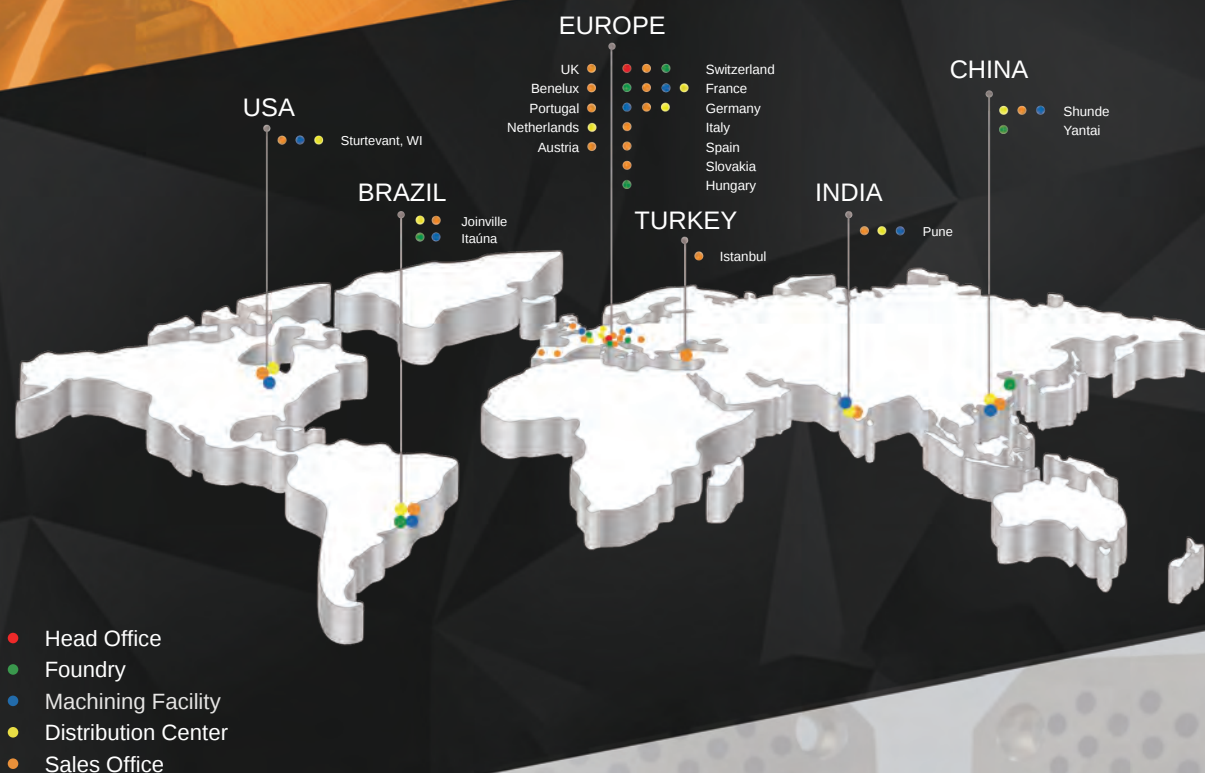
Food Industry
AMPCO® 18/M4
AMPCOLOY® 940



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