Welding & Brazing Solutions

For High-Tech and Quality-Critical Applications



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Welding & Brazing Solutions



Our Heritage and Global Presence

Established in 1985 as **Vacuum Brazing Consultants Ltd,** VBC Group is headquartered in Loughborough, East Midlands, at the heart of the UK's aerospace industry. VBC Group's scope of supply now covers a **worldwide customer base** in the field of welding, brazing and allied technologies.



Specialists in Advanced Welding and Brazing

VBC Group is a global supplier of **premium quality** welding wire, brazing alloys and associated products. We are specialists in supporting **quality critical** and **high-tech** applications such as aerospace, electronic imaging components, oil and gas, power generation as well as emerging technologies.



Our Mission Statement

We are committed to providing complete and bespoke **joining solutions** for advanced materials. We aim to meet our customers' individual needs with attention to detail and quality products. At VBC Group we strive to **positively influence our industry**, the environment and wider community.

Individualised Customer Service



Specialists in the Supply of Products for High-Tech and Quality-Critical Applications

Market Sectors

Aerospace Components

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Aviation MRO



Hard Materials



Our Key Benefits



Welding and Brazing Products

VBC Group holds a unique position as a supplier of both **welding and brazing** products. We have in-depth knowledge and expertise in the use of these materials. This enables our customers to buy their joining products from a **single specialist source** and make **efficiency savings.**



VBC Group carries **Aerospace Standard AS9100** approval. Our quality system is based on this demanding standard which underpins all of our activities. Our customers can be confident that VBC Group has the **quality credentials** to meet their requirements.



Expert Technical Support

VBC Group has the expertise to provide technical support for our products and the processes they are used in. Our customers can be certain that if they need **advice** on techniques, more detailed technical support or a full **consultancy package** then VBC Group can provide it.



Power Generation



Medical & Scientific



Emerging Technologies



Individualised Customer Service

Whether your requirement is for a single box of welding rods or a complex portfolio of 100s of products VBC Group's customer service team will provide you with individualised customer support. With an **on-time delivery** rate of **above 99.5%** you can be sure of excellent service.



We can help customers in many areas of joining technology including **welding metallurgy, vacuum brazing** processes (including honeycomb brazing), precious metal filler metals, brazing of man-made hard materials such as WC, PCD, CBN and diamond and brazing of ceramics using **active metal brazing** filler materials and techniques.



Bespoke Products and Services

VBC Group is flexible and responsive in its approach to customer requirements. We can provide services around our core product range such as **flagging of rods,** wire drawing, straightening and cutting, photo-etching, refining and pre-form manufacture. We also **manufacture** bespoke aerospacegrade **brazing pastes.**

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Global Supply Capability



Supply Chain Compliance



Quality Credentials



Quality Management System

VBC Group operates a mature quality system (approved since 1994). We are certified to ISO 9001:2015 and AS 9100 (Rev D).

AS 9100 provides a global aerospace manufacturing standard with a strong emphasis on **regulatory compliance, product traceability** and **continuous improvement** of the quality management system.



We release welding and brazing products to **AMS, AWS and ISO standards.** In addition we hold numerous customer approvals and can release products to aerospace specifications.

VBC Group is tier 1 supplier to Rolls-Royce OEM. We are listed for new build under MSRR9500 and for repair in the OMat (Rolls-Royce Overhaul Materials) and repair manual as authorised vendor UK 314.



Our Commitment to Quality

We understand the importance of continuous improvement and are committed to satisfying our customers' quality expectations.

Our quality system is based on the demanding standards of aerospace and we apply these standards for all of our customers regardless of their size, market sector or location.

Welding Products

VBC Group is a provider of premium-quality welding rods and associated products. Our welding products meet the requirements of the most stringent aerospace quality approvals giving superior performance in the most demanding of applications. In addition to our own Pura-Weld[™] brand we can provide premium brand products from our supply partners. Consequently we have the capability to supply over 200 different types of welding wire. A wide range of welding wires from the various product families are held in stock at our facility.







Pura-Weld[™] Welding Product Range



Welding Wire Forms

Rods / Straight lengths, Wire on Spools

Auxiliary Product forms

Weld Inserts: Rings from Shaped Section, Electrodes

Product Identification and Packaging

Special identifications such as bespoke flagging or colour coding of rods are available on all welding wire products. Specialised cleaning and packaging options ensure the highest commercial cleanliness standards for welding wire are maintained.



Welding Wire Products

There are over 200 welding alloy references in VBC Group's product portfolio. Some of the most commonly requested alloys are shown in this section.

Pura-Weld[™] Titanium Welding Alloys

Product Uses and Applications: These products are generally used in gas shielded welding processes (TIG, MIG and plasma-TIG) when joining titanium components. Titanium is used extensively in chemical processing, offshore and aerospace applications as well as in specialised areas such as motorsport and power generation.

Key Products	Trade Name				OMAT		
Pura-Weld™ 0070	CP Ti	ER Ti-2	AMS 4951	9500/70	366	There are approximately 15 alloys	
Pura-Weld™ 0073	6AI-4V Ti	ER Ti-5	AMS 4954	9500/73	3/145A	in VBC Group's range of ultra-pure	
Pura-Weld™ 0074	6-2-4-2 Ti	-	AMS 4952	9500/74	3/250	titanium weiding filier metals.	
Pura-Weld™ 0075	Titanium 829	-	-	9500/75	3/217		
Pura-Weld™ 0076	Titanium 685	-	-	9500/76	3/200		
Pura-Weld™ 0078	6AI-4V Ti ELI	ER Ti-23	AMS 4956	9500/78	3/145A		
Pura-Weld™ 9007	TiPd – ERTi 7	ER Ti-7	-	-	-		

Pura-Weld[™] Aluminium Welding Alloys

Product Uses and Applications: Aluminium alloys 1, 3, 5, 6 and some 7 series alloys can be welded using TIG, MIG and oxyfuel processes. Aluminium is used in pipe and tube fittings in chemical plant, heat exchanger, aerospace and structural applications.

Key Products	Trade Name				OMAT					
Pura-Weld™ 0031	4047 / 4047A	ER 4047	AMS 4185	9500/31	-	VBC Group's premium quality				
Pura-Weld™ 0032	4043 / 4043A	ER 4043	AMS 4190	9500/32	310	aluminium welding products provide				
Pura-Weld™ 0033	3103, NG3	-	-	9500/33	3/361A	lightweight aluminium alloys in a				
Pura-Weld™ 0035	4145	ER 4145	AMS 4184	9500/35	3/337	range of applications.				
Pura-Weld™ 0038	5356A	ER 5356	-	9500/38	3/61					
Pura-Weld™ 0045	2319	ER 2319	AMS 4191	9500/45	3/264					
Pura-Weld™ 9110	1100	ER 1100	AMS 4180	-	-					
Pura-Weld™ 9464	4643	ER 4643	AMS 4189	-	-					

Pura-Weld[™] Other Welding Alloy Product Groups

Product Type	Typical Alloys			OMAT	
Mild Steel Welding Alloys	Mild / carbon steel and ferrous alloys	Various – over 45 alloy types	-	-	VBC Group is able to supply
Copper Welding Alloys	Bronze and brass alloys	Various	-	-	the complete range of welding
Magnesium Welding Alloys	Pura-Weld™ 0050 Pura-Weld™ 0051	A5.19 EZ33A A5.19 AZ92A	9500/50 9500/51	308 3/58	copper, magnesium and zirconium welding materials.
Zirconium Welding Alloys	Pura-Weld™ 9702	A5.24 ER Zr 2	-	-	





Welding Alloys for Additive Layer Manufacturing Pura-Weld[™]

Key Products	Typical Alloys	AWS	AMS	MSRR	Key Points
Titanium Alloys	Pura-Weld™ 0073 6Al-4VTi	A5.16 ER Ti-5	AMS 4954	9500/73	VBC Group supplies products that are suitable for
Nickel Superalloys	IN625	A5.14 ERNiCrMo-3	AMS 5837	9500/237	Additive Layer Manufacturing (ALM) processes such as Shape Metal Deposition (SMD) and wire+arc
Aluminium Alloys	Pura-Weld™ 0045 Pura-Weld™ 9554 Pura-Weld™ 0031	A5.10 ER2319 A5.10 ER5554 A5.10 ER4047	AMS 4191 - AMS 4185	9500/45 - 9500/31	Additive Manufacturing (WAAM). SMD and WAAM have been pioneered by the aerospace industry. VBC Group is able to supply precision ultra-pure welding
Stainless Steel	420 316L	A5.9 ER420 A5.9 ER316L	AMS 5621 AMS 5692	-	supplied in bulk packs layer wound with a tightly controlled helix and cast for ALM applications



Welding Wire Products

Pura-Weld[™] Cobalt Welding Alloys

Product Uses and Applications: These cobalt welding, casting and hard facing alloys are for use on cobalt superalloys. Many applications can be found in gas turbines where high temperature strength, resistance to oxidation and wear resistance are required.

Key Products			Other Specifications		OMAT		Forms
Pura-Weld™ 0015	PMET 913, Alloy 12H, Stellite 12, HS12	-	-	9500/15	311	Cobalt alloys can be	
Pura-Weld™ 0019	PMET 906, Alloy 6, Stellite 6, HS 6	5788	-	9500/15	358	used for hardfacing,	
Pura-Weld™ 0023	PMET 905, L-605, Stellite 25, HS 25	5796	-	9500/23	-	turbine engine blades	
Pura-Weld™ 0025	PMET 931, HS31 / Stellite 31	5789	-	9500/25	-	and hot section	
Pura-Weld™ 0226	PMET 994, CM64, PWA694, Stellite 694	-	-	9500/226	-	components as	
Pura-Weld™ 0228	PMET 912, HS 12 (ECoCr-B)	-	-	9500/228	-	high or low pressure	
Pura-Weld™ 0248	PMET 972, Merl 72	-	PWA 795	9500/248	-	turbine blades.	
Pura-Weld™ 9018	PMET 918, Mar M 918	5814	-	-	-		
Pura-Weld™ 9414	PMET 914, FSX414	-	-	-	-		
Pura-Weld™ 9509	PMET 909, Mar M 509	-	PWA1185, GE B50TF89	-	-		
Pura-Weld™ 9800	PMET 980, T-800, Triballoy 800	-	GE B50TF193	-	-		
Pura-Weld™ 9210	PMET 921	5819	-	-	-		

Pura-Weld[™] Nickel Welding Alloys

Product Uses and Applications: VBC Group's nickel superalloy welding wires are used in high temperature and strength applications such as for gas and land based turbine engine components. There are around 50 alloy references in the range, the most commonly specified are listed below.

Key Products	Trade Name		Other Specifications		OMAT		
Pura-Weld™ 0003	NC 80/20	5676	AWS A5.14 ERNiCr-6	9500/3	305D	These high temperature	
Pura-Weld™ 0004	Nimonic [™] 90	5829	ISO 18274 NiCr20Co18Ti3	9500/4	312	nickel alloys are used	
Pura-Weld™ 0009	FM 92	5675	AWS A5.14 ERNiCrFe-6	9500/9	314	components subject to hot	
Pura-Weld™ 0016	PMET863, Nimonic™ C263	5966	GE B50A783	9500/16	3/62	gas flow, such as blades,	
Pura-Weld™ 0202	PMET865, Waspalloy™	5828	-	9500/202	3/99	vanes, combustors, frames	
Pura-Weld™ 0213	PMET870, Hastelloy™W	5786	AWS A5.14 ERNiMo-3	9500/213	3/33	anu castings.	
Pura-Weld™ 0216	FM82	5836	AWS A5.14:2005 ERNiCr-3	9500/216	3/170		
Pura-Weld™ 0215	PMET 875, Hastelloy™X	5798	AWS A5.14 ERNiMo-2	9500/215	3/165		
Pura-Weld™ 0220	PMET 818, IN 718	5832	-	9500/220	3/206		
Pura-Weld™ 0227	IN 901	5830	-	9500/227	3/203		
Pura-Weld™ 0237	PMET 860 Inco™ 625	5837	AWS A5.14 ERNiCrMo-3	9500/237	3/172		
Pura-Weld™ 0247	PMET 842, Rene™142	-	GE B50TF274	9500/247	-		
Pura-Weld™ 9247	PMET 847, Mar M 247	-	EMS 55447	-	-		
Pura-Weld™ 9738	PMET 838, Inco 738	-	PWA 1451, GE B50TF191	-	-		
Pura-Weld™ 9080	PMET 880, Rene 80	-	GE B50TF259	-	-		

Trademarks: PMET is a trademark of Polymet Corp, a longstanding supply partner of VBC Group. Stellite® and Tribaloy™are trademarks of Deloro Stellite Hastelloy® and Incoloy® are both trademarks of Haynes International, Waspaloy™ is a registered trademark of United Technologies Corp.



Pura-Weld[™] Stainless Steel Welding Alloys

Product Uses and Applications: These stainless steel welding alloys find use in a wide range of industries. VBC Group is able to provide commercial grades as well as grades for aerospace and power generation.

Key Products	Trade Name	AMS	Other Specifications	MSRR	OMAT	Key Points	Forms
Pura-Weld™ 0002	18-8Nb	-	MSRR 6677	9500/2	306	With 45 alloys in VBC	
Pura-Weld™ 0005	FV520, FIW	-	-	9500/5	-	Group's stainless steel	
Pura-Weld™ 0010	JETHETE M190	5822	Special Purity Grade	9500/10	3/54	one of the broadest range	
Pura-Weld™ 9240	17-4PH	5825	AWS A5.9 ER630	9500/240	-	of products on the market	
Pura-Weld™ 0212	312	5784	AWS A5.9 ER312	9500/212	3/163	today	
Pura-Weld™ 9309	309L	-	AWS A5.9 ER 309LMo	-	-		
Pura-Weld™ 9316	316L	5692	AWS A5.9 ER316L	9500/208	-		
Pura-Weld™ 0205	410	5776	AWS A5.9 ER410	9500/205	-		

Whether specifying or using VBC Group products you can be confident that they will produce superior quality welded joints



Associated Welding Products

VBC Group offers a range of associated welding products, some of which are detailed here. Please refer to our sales team for more details or for other welding products.

Weld Inserts

Weld inserts provide the highest quality root pass for welds that require radiography and have also gained acceptance in commercial applications. They are available as rings supplied in standard pipe sizes or as wire on coil, to AWS style A, B or C.

Deep-Penetration Welding Flux

We are able to offer a range of weld catalysts for structural steels, stainless steels and nickel alloys. These fluxes are specially formulated to enhance weld bead penetration.

Tungsten Electrodes

We are able to source the seven types and five industry-standard diameters. Our tungsten electrodes will meet the AWS (American Welding Society) specifications and package labels feature important safety information.

specifications and package labels feature important safety information.	
Locking Wire	
Locking Wire is extensively used to secure components which are subject to vibration in critical environments. Manufactured from a wide range of materials and certified to international specifications.	
Micro Laser Welding Wire	
VBC Group provides ultra fine diameter welding wire, typically between 0.3 - 0.6mm diameter, in a wide range of alloys	

VBC Group supplies both welding and brazing filler metals used to manufacture critical components in jet engine applications

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Brazing Products

Our product portfolio covers the complete range of brazing materials available today. Meta-Braze[™] brazing products are VBC Group's own premium brand of brazing products. Working with long-standing supply partners, VBC Group is also able to provide technical brazing solutions for our customers. We are able to recommend leading-brand products, unique or novel products and a range of associated brazing products such as stop off compounds, binders and fluxes.

We also have manufacturing capability for bespoke brazing pastes, predominantly producing aerospace nickel brazing pastes.







Meta-Braze[™] Brazing Product Range

	Meta-Braze [™] Nickel Brazing Alloys	Meta-Braze™ Copper Phos Brazing Alloys
Brazing	Meta-Braze [™] Gold Brazing Alloys	Meta-Braze [™] Copper Brazing Alloys
Alloys	Meta-Braze [™] Palladium Brazing Alloys	Meta-Braze [™] Aluminium Brazing Alloys
	Meta-Braze [™] Silver Brazing Alloys (V1 grade)	Meta-Braze [™] Titanium Brazing Alloys
	Meta-Braze [™] Silver Brazing Alloys	Meta-Braze [™] Active Brazing Alloys
Associated	Metallic Honeycomb	Paste Dispensing Consumables
Brazing	Pre-Sintered Pre-forms (PSPs)	Furnace Brazing Accessories
Products	Stop off Compounds	Meta-Braze [™] Brazing Flux
Brazing	Rods Strips Wire	Foil Powder Brazing Paste
Product Forms	Preforms Rings Paste	Tapes Pen Coated Rods

*Not all products are available in the forms shown. Check availability with VBC Group.

Product Identification and Packaging

Special identifications such as bespoke flagging or colour coding of rods are available on brazing products.

Customised packaging options are available to ensure our customers receive the pack size they require and the product is delivered to the required quality.



Brazing Products

Meta-Braze™ Nickel Based Brazing Alloys

Product Uses and Applications: Nickel brazing products used today in the aerospace, automotive and nuclear industries. In these applications they would typically be used to join stainless steel and high temperature superalloys.

Key Products	Trade Name	Ni	Cr	Fe	в	Si	Р	с	W				ISO 17672: 2016	
Meta-Braze™ 4775	Nicrobraz® 125	Bal	14	4.5	3.1	4.5	-	0.7	-	980-1060	4775	BNi-1	Ni 600	
Meta-Braze™ 4776	Amdry™ 915	Bal	13	4.5	2.7	4.5	-	-	-	950-1127	-	-	-	
Meta-Braze™ 4776M	Nicrobraz® LC	Bal	14	4.5	3.1	4.5	-	-	-	980-1070	4776	BNi-1a	Ni 610	
Meta-Braze™ 4777	Nicrobraz® LM	Bal	7	3.0	3.1	4.5	-	-	-	970-1000	4777	BNi-2	Ni 620	
Meta-Braze™ 4778	Nicrobraz® 130	Bal	-	0.5	3.1	4.5	-	-	-	980-1040	4778	BNi-3	Ni 630	
Meta-Braze™ 4779	Nicrobraz® 135	Bal	-	1.5	1.8	3.5	-	-	-	980-1070	4779	BNi-4	Ni 631	
Meta-Braze™ 4782	Nicrobraz® 30	Bal	19	-	-	10.1	-	-	-	1080-1135	4782	BNi-5	Ni 650	Special
Meta-Braze™ 4310	Nicrobraz® 10	Bal	-	-	-	-	11	-	-	875	-	BNi-6	Ni 700	
Meta-Braze™ 4770	Nicrobraz® 50	Bal	14	-	-	-	10.1	-	-	890	-	BNi-7	Ni 710	
Meta-Braze™ 4720	Nicrobraz® 170	Bal	11.5	3.5	2.5	3.5	0.01	0.48	16	970-1105	-	BNi-10	Ni 670	

Meta-Braze™ Wide Gap Braze Powders and Paste Products

Product Uses and Applications: Wide Gap Braze Products are used today in the repair of gas turbines in industrial and aerospace applications. Products typically incorporate a powder that acts as a braze and a powder of the parent metal or of compatible metallurgical composition (often a stainless steel or high temperature super-alloy). In general these products are manufactured to customer requirements.

	Trade Name	
Meta-Braze [™] 6002	Mar M 002	
Meta-Braze [™] 6001	WG1	
Meta-Braze [™] 4313	Nicrogap™108	

Meta-Braze[™] Pre-Sintered Pre-forms (PSPs)

VBC Group supply Morgan Pre-Sintered Preforms (PSP™) used to dimensionally restore and repair cracks on worn jet engines, components for aerospace and industrial applications, such as high pressure, gas turbine vanes.

PSP™ is a customized blend of superalloy and braze powders in either a plate form or specific shape which allows selective build-up of worn surfaces. Extrudable paste allows for application in difficult to reach areas and a brushable paint form is used for sealing deep or narrow cracks or even micro-cracks. PSPs™ are available in a flat plate, cut preforms, tapered and curved preforms and a 3-Dimensional bushing, which is used to restore worn holes or bores.

Typical Braze Alloys use Pre-Sintered Preforms	d in	Typical Superalloys used Pre-Sintered Preforms	l in
AD914 AMS 4776 AMS 4778 DF-3 DF-4B DF-5	DF-6 IN 718B MarM 509B S57B Custom OEM Alloys	Inco 939 T800 SA650 (GE Only) Hastelloy X	HS 188 MarM 247 Rene 142



Trade Marks: Nicrobraz®, Nicrogap™ and Stop-off™ are trademarks of Wall Colmonoy. Amdry™ is a trademark of Oerlikon Metco. VBC Group is able to provide these and other nickel braze products. Aside from this, VBC Group also provides its own brand of this type of product for global distribution.

Associated Brazing Products

Meta-Braze™	Metallic Honeycomb for Gas						
	Turbine Engine Seals						

VBC Group can supply metallic honeycomb which is approved by the major aero engine OEMs. It is available in ready to braze form with pre-loaded tape applied. VBC Group offers technical consultancy in this area of brazing technology.

Key Products	
HS214, 230	Segments and rings (straight and chamfer),
Hast-X, Hast-S	annular segments, multi-stepped cross sections
Inconel, Stainless Steel	and net-shaped components.

Meta-Braze[™] Stop off Compounds ♦

A variety of stop off compounds are available including Wall Colmonoy Stop-off[™] and Morgan Stopyt[™]. They should be selected according to the parent metals being brazed and the form in which the product will be applied. These parting compounds prevent flow of molten filler metal into areas where it is not needed.

Key Products		
Green Stop-off™	General purpose for any metal or brazing process.	
Yellow Stop-off™	Controlled atmosphere furnace work.	A
White Stop-off™	As a parting compound for furnace use.	A
Blue Stop-off™	High temps and vacuum. Ti, Zr and superalloys.	U
Red Stop-off™	For furnace use. Chemically soluble after brazing.	
Stopyt™	Stop-off compound for Ti, Zr and superalloys.	

Meta-Braze[™] Brazing Paste Dispensing Systems and Consumables

VBC Group supplies pneumatic dispensing control units that are simple to use and enable repeatable application of brazing paste deposits. The air pressure, needle gauge and pulse-time control the size of the braze paste deposit.

Dispensing Unit	Supplied as a kit
Paste cartridges, needles and tips.	Packs of 10 Bags of 200

Meta-Braze[™] Furnace Brazing Accessories 🖇

VBC Group are able to supply furnace brazing accessories such as thermal insulating paper to separate parts in a furnace and thermocouples for measuring the furnace temperature. We offer a refining service for Rh/Pt thermocouples.

Fiberfrax [™] 550 Paper	Supplied in rolls
Type R, Type S and Type K thermocouples	Metal sheathed / clad thermocouples manufactured to customer specifications





Brazing Products

Meta-Braze[™] Gold Based Brazing Alloys

Product Uses and Applications: High purity gold containing brazing alloys find use in a variety of applications including electronic components, imaging equipment, aerospace, oil and gas and chemical. The alloys in this range are normally selected because of their ability to withstand chemical attack and retain strength at elevated temperature or because they can be produced in ultra pure V1 grade sometimes called 'vacuum tube grade'.

Key Products	Trade Name		Cu	Ni	Ag	Pd	Mn						
Vleta-Braze™ Au 800	80%Au/20%Cu	80	20	-	-	-	-	890	-	BAu-2	-	Au 800	
Vleta-Braze™ Au 081	Nicoro® 80	81.5	16.5	2	-	-	-	910-925	-	-	-	-	
Vleta-Braze™ Au 625	62%Au/38%Cu	62.5	37.5	-	-	-	-	930-940	-	-	AU102	Au 625 V1	
Vleta-Braze™ Au 827	Nioro®	82	-	18	-	-	-	950	4787	BAu-4	AU105	Au 827 V1	Y
Vleta-Braze™ Au 503	50%Au/50%Cu	50	50	-	-	-	-	955-970	-	-	-	Au 503	
Vleta-Braze™ Au 375	37.5%Au/62.5%Cu	37.5	62.5	-	-	-	-	980-998	-	BAu-1	AU103	Au 375 V1	
Vleta-Braze™ Au 354	35%Au/65%Cu	35	65	-	-	-	-	990-1010	-	-	-	Au 354	
Vleta-Braze™ Au 025	Palnicorum®10	25	37	10	-	15	13	970-1013	-	-	-	-	6
Vleta-Braze™ Au 295	30%Au/70%Cu	30	70	-	-	-	-	995-1020	-	-	AU104	Au 295 V1	
Vleta-Braze™ Au 351	Nicoro®	35	62	3	-	-	-	975-1030	-	BAu-3	-	Au 351	\bigcirc
Vleta-Braze™ Au 070	70%Au/30%Ag	70	-	-	30	-	-	1030-1040	-	-	-	-	
Vleta-Braze™ Au 700	Palniro®7	70	-	22	-	8	-	1005-1045	4786	BAu-6	-	Au 700	
Vleta-Braze™ Au 507	Palniro®1	50	25	-	-	25	-	1102-1121	4784	-	-	Au 507	



Ultra high purity brazing products supplied by VBC Group are used for components in medical imaging and treatment equipment



Meta-Braze[™] Palladium Bearing Brazing Alloys

Product Uses and Applications: High purity palladium containing brazing alloys find use in a variety of applications including electronic components for imaging, aerospace, oil and gas and chemical. The alloys in this range are often selected because they can be produced in ultra pure V1 grade, sometimes called 'vacuum tube grade', making them suitable for brazing metallised ceramics in electronic components. Palladium bearing alloys also exhibit good corrosion resistance and strength at elevated temperatures.

Key Products	Trade Name	Pd	Ag	Cu	Ni	Other	Melting Range °C				
Meta-Braze™ Pd 287	Palcusil®5	5	68.5	26.5	-	-	805-810	BVAg-30	PD106	Pd 287 V1	
Meta-Braze™ Pd 388	-	10	67.5	22.5	-	-	830-860		PD104	Pd 388 V1	
Meta-Braze™ Pd 387	Palcusil®10	10	58	32	-	-	825-850	BVAg-31	PD105	Pd 387 V1	A
Meta-Braze™ Pd 481	Palcusil®15	15	65	20	-	-	850-900	-	PD103	Pd 481 V1	
Meta-Braze™ Pd 484	Palcusil™ 20	20	52	28	-	-	875-900	-	PD102	Pd 484 V1	
Meta-Braze™ Pd 587	Palcusil [®] 25	25	54	21	-	-	901-950	BVAg-32	PD101	Pd 587 V1	
Meta-Braze™ Pd 288	Palsil®5	5	95	-	-	-	970-1010	-	PD204	Pd 288 V1	
Meta-Braze™ Pd 483	18%Pd/ 82%Cu	18	-	82	-	-	1080-1090	-	PD203	Pd 483 V1	
Meta-Braze™ Pd 485	Palmansil™ 5	20	75	-	-	5 Mn	1000-1120	-	-	Pd 485	
Meta-Braze™ Pd 030	-	30	70	-	-	-	1150-1225	-	-	-	
Meta-Braze™ Pd 647	Palni®	60	-	-	40	-	1235	-	PD201	Pd 647 V1	
Meta-Braze™ Pd 047	Palnisi 47™	46.7	-	-	47.2	6.1 Si	851	-	-	-	
Meta-Braze™ Pd 065	Palco®	65	-	-	-	35 Co	1219	BVPd-1	-	-	

Meta-Braze[™] High Purity Silver Brazing Alloys

Product Uses and Applications: High purity silver containing brazing alloys find use in a variety of applications predominantly in electronic components. A major use is for joining metallised ceramics used in vacuum tube devices. The addition of nickel to Meta-Braze[™] Ag 071 improves wetting on stainless steel components, whilst the indium containing Meta-Braze[™] Ag 063 and Meta-Braze[™] Ag 061 provide the possibility for a step brazing operation when used with Meta-Braze[™] Ag 272.

Key Products	Trade Name	Ag	Cu	Ni	Other	Melting Range °C	AWS A5.8	EN1044: 1999	ISO 17672: 2016	Product Forms
Meta-Braze™ Ag 272	Cusil®	72	28	-	-	780	BVAg-8	AG401	Ag 272 V1	
Meta-Braze™ Ag 071	Nicusil® 3	71.15	28.1	0.75	-	780-795	BAg-8b	-	-	
Meta-Braze™ Ag 063	Incusil®10	63	27	-	10 ln	685-730	-	-	-	
Meta-Braze™ Ag 061	Incusil®15	61.5	23.5	-	15 ln	605-725	BVAg-29	-	-	

*Not all alloys are available in these forms. Check availability with VBC Group.

Morgan Trade Marks: Through its longstanding association with Morgan Advanced Materials, Wesgo Metals, VBC Group is able to provide Morgan branded products in certain territories. Aside from this VBC Group also provides its own brand of this type of product for global distribution.



Brazing Products

Meta-Braze[™] Range of Silver Brazing Alloys

Product Uses and Applications: These products can be used to join most of the common metals used in industry such as copper, copper alloys (brass, bronze, nickel silver etc.), nickel alloys, carbon steel, stainless steel and tungsten carbide. Meta-BrazeTM 155 is the most widely used brazing alloy combining low brazing temperatures with a short melting range making it free flowing and easy to use. Meta-BrazeTM 140 is a popular general-purpose product with medium melt and flow characteristics.

Key Products	Ag	Cu	Zn	Sn	Si				ISO 17672:2016	Product Forms
Silver Brazing Alloys - High S	ilver Conten	t with Low	Melting Ter	nperatures	and Free F	lowing Chara	cteristics			
Meta-Braze™ 060	60	26	14	-	-	695-730	-	AG202	-	
Meta-Braze™ 156	56	22	17	5	-	620-655	BAg-7	AG102	Ag 156	00
Meta-Braze™ 155	55	21	22	2	-	630-660	-	AG103	Ag 155	
Meta-Braze™ 145	45	27	25.3	2.5	-	640-680	-	AG104	Ag 145	
Meta-Braze™ 145 Si	45	27	25.5	2.5	0.2	640-680	-	-	Ag 145 Si	$\bigcirc \square$
Meta-Braze™ 045 Si	45	25	26.8	3	0.2	640-680	-	-	-	
Silver Brazing Alloys - Mediu	m and Low S	Silver Conte	ent With Me	dium Melti	ng and Flov	v Characterist	tics			
Meta-Braze™ 140	40	30	28	2	-	650-710	BAg-28	AG105	Ag 140	
Meta-Braze™ 140 Si	40	30	27.8	2	0.2	650-710	-	-	Ag 140 Si	
Meta-Braze™ 138	38	32	28	2	-	650-720	BAg-34	-	Ag 138	
Meta-Braze™ 130	30	36	32	2	-	665-755	-	AG107	Ag 130	
Meta-Braze™ 125	25	40	33	2	-	680-760	BAg-37	AG108	Ag 125	
Meta-Braze™ 024	24	43	33	-	-	740-800	-	-	-	
Meta-Braze™ 020	20	44	35.8	-	0.2	690-810	-	AG206	Ag 220	

Meta-Braze[™] Standard Silver Brazing Fluxes

Product Uses and Applications: The use of low temperature (LT) brazing flux is necessary for brazing operations undertaken in air. VBC Group is able to offer a range of silver brazing fluxes with different brazing characteristics to suit a range of applications.

Key Products	Working Range °C	EN1045	Key Points
Low Temperature Silver Brazing Flux			
Meta-Braze™ LT 21 Flux Powder	550-800	FH10	A general purpose silver brazing flux powder
Meta-Braze™ LT 22 Flux Powder	550-750	FH10	A general purpose silver brazing flux powder for high silver content alloys only
Meta-Braze™ LT 41 Flux Paste	550-800	FH10	A general purpose silver brazing flux paste
Meta-Braze™ AB 21 Flux Paste	550-775	FH11	A special purpose silver brazing flux paste for aluminium bronze
Meta-Braze™ Z-BAB Flux Paste	550-880	-	A boric acid and borate free flux paste
Medium Temperature Brazing Flux			
Meta-Braze™ MT 21 Flux Powder	600-900	FH10	A silver brazing flux powder for low silver content alloys and prolonged heating
Meta-Braze™ MT 21 Flux Paste	600-900	FH10	A silver brazing flux paste for low silver content alloys and prolonged heating



Meta-Braze[™] Silver Brazing Alloys for Tungsten Carbide and PCD Segments

Product Uses and Applications: These silver brazing alloys are used for brazing cemented tungsten carbide and tungsten carbide faced PCD tips. The manganese and/or nickel in them improves wetting of the filler metal. Meta-Braze[™] 449 and Meta-Braze[™] 450 are widely used for small/medium carbides whilst Meta-Braze[™] 450 Trifoil and Meta-Braze[™] 049 Trifoil are special laminate products used for larger carbide segments protecting against cracking.

Key Products		Ag	Cu	Zn	Ni	Mn	In					ISO 17672: 2016	Product Forms
Silver Brazing Alloys - For	Tun	gster	n Carbid	e and P	CD Segr	nents							
Meta-Braze™ 064		64	26	-	2	2	6	730-780	-	-	-	-	
Meta-Braze™ 450		50	20	28	2	-	-	660-705	4788	BAg-24	-	Ag 450	
Meta-Braze™ 449		49	16	23	4.5	7.5	-	680-705	-	BAg-22	AG502	Ag 449	
Meta-Braze™ 440		40	30	28	2	-	-	670-780	-	BAg-4	-	Ag 440	
Silver Brazing Alloys - Trif	oil P	roduc	cts for T	ungsten	Carbide	e Segme	ents						
Meta-Braze™ 049 Trifoil		49	27.5	20.5	0.5	2.5	-	670-690	-	-	-	-	
Meta-Braze™ 450 Trifoil		50	20	28	2	-	-	660-705	4788	BAg-24	-	Ag 450	

-	660-705	4788	BAg-24	-	

Meta-Braze[™] Silver Brazing Fluxes for Tungsten Carbide and PCD Segments

Product Uses and Applications: Special brown boron modified (BM) fluxes are recommended for brazing grades of tungsten carbide which prove difficult for the brazing alloy to wet. Standard silver brazing fluxes are often preferred where wetting isn't an issue and where use of a white flux is preferable to allow the joint to be seen during brazing.

Low Temperature Silver Brazing Flux	Working Range °C	EN1045	Key Points
Meta-Braze™ BM 21 Flux Powder	550-800	FH12	A boron-modified flux powder for tungsten carbide and PCD
Meta-Braze™ BM 41 Flux Paste	550-800	FH12	A boron-modified dispensable flux paste for tungsten carbide and PCD
Meta-Braze™ BM 81 Dispensable Flux Paste	550-800	FH12	A boron-modified flux paste for tungsten carbide and PCD
Meta-Braze™ LT 21 Flux Powder	550-800	FH10	A general purpose silver brazing flux powder
Meta-Braze™ LT 41 Flux Paste	550-800	FH10	A general purpose silver brazing flux paste

Meta-Braze[™] Silver Brazing Alloys for Special Applications

Product Uses and Applications: Meta-BrazeTM 463 and Meta-BrazeTM 456a are designed to prevent interfacial (crevice) corrosion in stainless steel silver-brazed joints that are exposed to water in damp or wet service environments. Meta-BrazeTM 160 has been used for the same applications.

Key Products	Ag	Cu	Ni	Sn	Other					ISO 17672: 2016	Product Forms		
Silver Brazing Alloys - For Stainless Steel Joints Exposed to Aqueous Service Conditions													
Meta-Braze [™] 463	63	28.5	2.5	6	-	690-800	4774	BAg-21	-	Ag 463			
Meta-Braze [™] 160	60	30	-	10	-	600-730	4773	BAg-18	AG402	Ag 160			
Meta-Braze™ 456a	56	27.25	2.25	-	14.5 ln	600-710	-	-	AG403	Ag 456a			
Silver Brazing Alloys - For Aerospace and Miscellaneous Applications													
Meta-Braze™ 456	56	42	2	-	-	770-895	4765	BAg-13a	-	Ag 456			
Meta-Braze™ 454	54	40	1	-	5 Zn	720-855	4772	BAg-13	-	Ag 454			
Meta-Braze™ 025	25	52.5	-	-	22.5 Zn	675-855	-	-	-	-			



Brazing Products

Meta-Braze[™] Range of Silver / Copper Phosphorus Brazing Alloys

Product Uses and Applications: Principally used for HVAC&R applications where they are recommended for the flux-less brazing of copper pipes and tubes. Meta-Braze™ 284 can be supplied as a foil which is widely used for electrical engineering applications involving copper. The phosphorus in these alloys imparts a self-fluxing characteristic but also affects the ductility and flow of the product. The products in this range provide different ductility and flow characteristics. They should not be used on nickel or iron containing metals, including all grades of steel, because a brittle joint will result.

Key Products	Ag	Cu	Р	Other	Melting Range °C			Standard Forms	Special Forms
Silver Copper Phos Brazi	ng Alloys								
Meta-Braze™ 286	18	75	7	-	645	CP101	CuP 286		
Meta-Braze™ 284	15	80	5	-	645-800	CP102	CuP 284		
Meta-Braze™ 283	6	86.75	7.25	-	645-720	-	CuP 283		
Meta-Braze™ 281	5	89	6	-	645-815	CP104	CuP 281		
Meta-Braze™ 279	2	91.7	6.3	-	645-825	CP105	CuP 279		
Copper Phos Brazing Allo	oys								
Meta-Braze [™] 179	-	93.8	6.2	-	710-890	CP203	CuP 179		
Meta-Braze™ 182	-	92.2	7.8	-	710-770	CP201	CuP 182		
Meta-Braze [™] 386	-	86.2	6.8	7 Sn	640-680	CP302	CuP 386		
Meta-Braze [™] 389	-	92	6	2 Sb	690-825	CP301	CuP 389		U



VBC Group provides silver-copper-phos braze alloys for use in HVACR applications. The quality of Meta-Braze[™] alloys ensures customers can be confident of repeatable flow and reliable joint quality.



Meta-Braze[™] Brazing Fluxes for Use on Copper Alloys with Silver-/ Copper-Phosphorus Brazing Alloys 👘 🕸

Product Uses and Applications: The use of brazing flux is not necessary when brazing copper to copper using a silver-/copper-phos brazing product because the phosphorus in the alloy imparts a self-fluxing characteristic.

towever for brazing copper alloys, such as brass of bronze, this sen-huxing mechanism is not enective and use of a brazing hux is neces	lowever for	r brazing copper	alloys, such as brass or	bronze, this self-fluxing mechanism is	s not effective and use of a brazing f	flux is necessary
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Key Products	Working Range °C	EN1045	Key Points
Low Temperature Silver Brazing Flux			
Meta-Braze™ LT 21 Flux Powder	550-800	FH10	A general purpose silver brazing flux powder
Meta-Braze™ LT 22 Flux Powder	550-750	FH10	A general purpose silver brazing flux powder for high silver content alloys only
Meta-Braze™ LT 41 Flux Paste	550-800	FH10	A general purpose silver brazing flux paste
Meta-Braze™ AB 21 Flux Paste	550-775	FH11	A special purpose silver brazing flux paste for aluminium bronze
Medium Temperature Silver Brazing Flux			
Meta-Braze™ MT 21 Flux Powder	600-900	FH10	A silver brazing flux powder for low silver content alloys and prolonged heating
Meta-Braze™ MT 21 Flux Paste	600-900	FH10	A silver brazing flux paste for low silver content alloys and prolonged heating
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Meta-Braze[™] Aluminium Brazing Alloys

Product Uses and Applications: Meta-Braze™ Al filler metals are intended for joining aluminium alloys – the 1000 series (e.g. 1100), 3000 series (e.g. 3003, 3004), 5000 series and some 6000 series alloys (eg.6061, 6031, 6951). They are used in the manufacture of automotive components and aluminium heat exchangers.

Key Products	Al	Si	Cu	Zn	Melting Range °C			ISO 17672: 2016	
Meta-Braze™ Al 112	88	12	-	-	575-585	BAISi-4	AL104	Al 112	
Meta-Braze™ Al 013	22	-	-	78	441-471	-	-	-	
Meta-Braze™ AI 002	2	-	-	98	377-385	-	-	-	

Meta-Braze[™] Aluminium Brazing Fluxes

Product Uses and Applications: When brazing aluminium alloys in air it is necessary to use a brazing flux. VBC can supply both fluoride based non corrosive fluxes and chloride based corrosive fluxes.

Aluminium Brazing Flux	Working Range °C	EN1045	Key Points
Meta-Braze™ ALC Flux Powder	550-660	FL10	A general purpose aluminium brazing flux powder with corrosive residues
Meta-Braze™ ALC Flux Paste	550-660	FL10	A general purpose aluminium brazing flux paste with corrosive residues
Meta-Braze™ ALNC Flux Powder	570-660	FL20	A general purpose aluminium brazing flux powder with non-corrosive residues
Meta-Braze™ ALNC Flux Paste	570-660	FL20	A general purpose aluminium brazing flux paste with non-corrosive residues



Brazing Products

Meta-Braze[™] Copper Based Furnace Brazing Alloys

Product Uses and Applications: These copper based filler metals are a range of special products designed for high temperature brazing of steel and carbide components. The Meta-BrazeTM Cu products which contain nickel and or manganese can show improved wetting on tungsten carbide. Copper can be used as a filler metal in its own right. It can be supplied in a variety of forms and is used for aerospace, automotive and electronic applications.

Key Products	Cu	Ni	Mn	Sn	Others				
Meta-Braze™ Cu 110	99.9	-	-	-	-	1085	CU101	Cu 110	
Meta-Braze™ Cu 102	99.95	-	-	-	-	1085	CU102	Cu 102	
Meta-Braze™ Cu 186	97	3	-	-	0.03 B	1085-1100	CU105	Cu 186	
Meta-Braze™ Cu 092	91.75	-	-	8	0.25 P	882-1027	-	-	
Meta-Braze™ Cu 595	84.25	3.25	12.5	-	-	965-995	-	Cu 595	

Meta-Braze[™] Copper Based Brazing Alloys for High Temperature Brazing in Air with Flux

Product Uses and Applications: These copper based filler metals are a range of special products designed for high temperature brazing of steel and carbide components. The Meta-Braze[™] Cu products which contain nickel and / or manganese can show improved wetting on tungsten carbide. When brazing in air it is necessary to use a Meta-Braze[™] brazing flux that is suitable for use at high temperatures.

Key Products	Cu	Zn	Ni	Mn	Sn	Со	Si	Melting Range °C		ISO 17672: 2016	Standard Forms
Copper Brazing Alloys – For Brazing of Tungsten Carbide Drills, Tools and Wear Parts											
Meta-Braze™ Cu 058	58	38	-	2	-	2	-	890-930	-	-	
Meta-Braze™ Cu 052	52.5	-	9.5	38	-	-	-	880-920	-	-	
Meta-Braze™ Cu 067	67.5	-	9	23.5	-	-	-	925-955	-	-	
Copper Alloys – For Brass Brazing or Bronze Welding of Steel Components											
Meta-Braze™ Cu 470a	60	Bal	-	-	-	-	0.3	875-895	CU301	Cu 470a	
Meta-Braze™ Cu 670	60	Bal	-	0.15	0.2	-	0.3	870-900	CU303	Cu 670	

Meta-Braze[™] High Temperature Brazing Fluxes for Use with Copper Based Brazing Alloys

Product Uses and Applications: The use of brazing flux is necessary for brazing operations using copper based brazing alloys when brazing in air.

Key Products	Working Range °C	EN1045	Key Points
High Temperature Brazing Flux			
Meta-Braze™ HT 21 Flux Powder	750-1200	FH21	A general purpose brazing flux powder for copper brazing alloys
Meta-Braze™ HT 21 Flux Paste	750-1200	FH21	A general purpose brazing flux paste for copper brazing alloys
Medium Temperature Silver Brazing Flux			
Meta-Braze [™] MT 22 Flux Powder	750-1000	FH21	A general purpose brazing flux powder for brass brazing/bronze welding

Meta-Braze[™] Active Brazing Alloys

Product Uses and Applications: Active brazing alloys are used for joining a variety of ceramic and cermet components. They eliminate the need for metallising providing savings in time and cost. Active brazing alloys are available in silver, titanium and copper based materials. These products are used in specialised electronic components and tooling applications.

Key Products	Trade Name	Ag	Cu	Ti	In	Other	Melting Range °C	
Meta-Braze™ Cu 93Ti	Copper-ABA™	-	92.75	2.25	-	2 Al, 3 Si	958-1024	
Meta-Braze™ Ag 93Ti	Silver-ABA™	92.75	5	1.25	-	1 Al	860-912	P
Meta-Braze [™] Ag 69Ti	Ticusil™	68.8	26.7	4.5	-	-	780-900	
Meta-Braze [™] Ag 63Ti	Cusil ABA™	63	35.25	1.75	-	-	780-815	
Meta-Braze™ Ag 59Ti	Incusil ABA™	59	27.25	1.25	12.5	-	605-715	

VBC Group specialises in supplying products for active brazing of a wide range of ceramic and cermet materials. This highly specialised area of brazing technology requires technical support and process development that can also be provided by VBC Group.

Meta-Braze[™] Titanium Brazing Alloys

Product Uses and Applications: Meta-Braze™ titanium brazing alloys are designed for titanium alloys and superalloys. Typical applications include space and aerospace components where the properties of titanium alloys are necessary.

Key Products	Trade Name	Ti	Ni	Cu	Zr	Other			
Meta-Braze™ BTi-1	Ticuni™	70	15	15	-	0.3% max	BTi-1	910-960	
Meta-Braze™ BTi-2	Ticuni™ 60	60	25	15	-	-	BTi-2	890-940	
Meta-Braze™ BTi-3	TicuniZr™ 38	37.5	10	15	37.5	-	BTi-3	835-850	

Soldering Products



VBC Group's Solda-Met[™] range of solders and soldering fluxes are designed for industrial soldering operations. The products have been selected to complement the Meta-Braze[™] Brazing alloys for use in components where there is a need for a low temperature joining process.

Solda-Met[™] Lead-Free Soft Solders

Product Uses and Applications: Lead-free solders are widely specified for their elevated strength and resistance to creep at temperature. They are also obligatory for components where compliance with EU RoHS, EVL, WEEE Directives and other environmental regulations are a factor.

Key Products	Sn	Ag	Cu	Sb	Melting Range °C	EN29453	ISO 9453: 2014	Standard Forms	Other Forms
Solda-Met [™] 100	100	-	-	-	232	-	-	Solid	Sticks, strip, pieces and paint
Solda-Met™ 96S	96	4	-	-	221-228	Alloy No.28	Alloy No.701	Solid / A- or RA-Flux Cored	Strip, Rings, Foil, Preforms
Solda-Met™ 965S	96.5	3.5	-	-	221	-	Alloy No.703	Solid / A- or RA-Flux Cored	Strip, Rings, Foil, Preforms
Solda-Met™ 96SA	96.15	3.5	-	0.35	221	-	-	-	Paste
Solda-Met™ 975S	97.5	-	2.5	-	221-225	-	-	Solid	Strip, Rings, Foil, Preforms
Solda-Met™ 97C	97	-	3	-	230-250	Alloy No.24	Alloy No.402	Solid / A- or RA-Flux Cored	Strip, Rings, Foil, Preforms
Solda-Met™ 99C	99.3	-	0.7	-	230-240	Alloy No.23	Alloy No.401	Solid / A- or RA-Flux Cored	Strip, Rings, Foil, Preforms
Solda-Met™ 95A	95	-	-	5	230-240	Alloy No.18	Alloy No.201	Solid / RA-Flux Cored	Strip, Rings, Foil, Preforms
Solda-Met [™] 87SC	87	10	3	-	214-275	-	-	Solid	Strip, Rings, Foil, Preforms



Solda-Met[™] vbcgroup

Solda-Met[™] Lead-Bearing Soft Solders

Product Uses and Applications: Lead-bearing solders still find use in certain applications where regulations permit. They melt at lower temperatures than lead free alloys and depending on the formulation can provide a range of flow and joint filling characteristics.

Key Products	Sn					ISO 9453: 2014		Other Forms
Solda-Met™ 62LS	62	36	2	178-190	Alloy No.30	Alloy No.171	Solid / A- or RA-Flux Cored	Strip, Rings, Foil, Preforms
Solda-Met™ 5LS	5	93.5	1.5	296	Alloy No.34	Alloy No.191	Solid	Strip, Rings, Foil, Preforms
Solda-Met™ L95S	-	95	5	304-370	Alloy No.33	Alloy No.182	Solid	Strip, Rings, Foil, Preforms
Solda-Met™ 63L	63	37	-	183	Alloy No.1	Alloy No.102	Solid / A- or RA-Flux Cored	Strip, Rings, Foil, Preforms
Solda-Met™ 60L	60	40	-	183-190	Alloy No.2	Alloy No.103	Solid / A- or RA-Flux Cored	Strip, Rings, Foil, Preforms
Solda-Met [™] 50L	50	50	-	183-215	Alloy No.3	Alloy No.112	Solid / A- or RA-Flux Cored	Strip, Rings, Foil, Preforms

Solda-Met[™] Soft Solder Fluxes

Product Uses and Applications: Lead-bearing solders still find use in certain applications where regulations permit. They melt at lower temperatures than lead free alloys and depending on the formulation can provide a range of flow and joint filling characteristics.

Key Products	Recommended for Use On				
Solda-Met™ 1C Liquid Flux	Carbon Steel / Stainless /Copper/ Brass	180-350	Corrosive	Warm water wash	250ml & 1 Litre
Solda-Met™ 2C Liquid Flux	Copper/ Brass	180-300	Intermediate	No-clean/water wash	250ml & 1 Litre
Solda-Met™ 3C Flux Paste	Carbon Steel / Stainless /Copper/ Brass	180-350	Corrosive	Warm water wash	1 Litre

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Technical Services

VBC Group has its origins in providing technical consultancy in brazing and welding projects. Today we both support our product sales technically and provide technical consultancy where customers require more in-depth support or assistance with a project.

Consultancy projects can range from providing a few hours of support remotely in order to solve a particular issue to spending a week on site with a customer working through their joining processes and training their staff. Some customers prefer to purchase a set number of days which can be used on an ad hoc basis as their product development projects progress.







Join-Tec[™] Training

Reasons for training

- New to welding or brazing
- Introduction to new materials
- Adopting new products or projects
- Refresher Training
- Staff Training

Training topics

- The fundamental principals of a joining process
- Joining techniques and heating methods
- Vacuum brazing training both theoretical and practical
- How to do a joining audit
- Problem solving in joining

What is involved?

Before quoting for a consultancy a detailed brief is taken to ensure that both parties understand the objectives of the training and agree what needs to be delivered in order to achieve the desired outcome.

Training is often conducted at a customer's premises although VBC Group's Loughborough site and external training frequently forms part of a consultancy package.

Join-Tec[™] Consultar

Reasons for consultancy

- Undertaking a new project
- No in-house knowledge
- External support required
- Shortcut the learning curve
- Solving difficult problems

Consultancy topics

- Vacuum brazing processes
- Honeycomb brazing
- Wide gap brazing and gas turbine component repairs
- Brazing of PCD and other man-made hard materials
- Active brazing of ceramics

What is involved?

Before quoting for a consultancy a detailed brief is taken to ensure that both parties understand the objectives of the consultancy and agree what needs to be delivered in order to achieve the desired outcome.

Consultancy can be delivered remotely by phone, email or video conference, or on selected days over the life of a project or in a block of days.

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