SURFACING ALLOYS
WALLEX® SELECTOR CHART

WALLCOLMONOY
SURFACING ALLOYS

WALLEX®
(cobalt-based)

ALLOY	NOMINAL COMPOSITION (%)								ROCKWELL HARDNESS (C-scale)	SUPPLIED AS	DESCRIPTION AND GENERAL USES
	B	C	Cr	Fe	Ni	Si	W	Co			
PTA / Laser Alloys / HIP											
6	-	1.2	29.0	1.5	-	1.2	4.5	Bal	38-46	PTA HVOF Laser HIP	Excellent resistance to wear, galling and corrosion to high temperatures. This versatile hardfacing alloy's uses include for hot shear knives and blades, hot trim dies, pump shafts and bearings, erosion shields, heat shields, valve seats and gates.
12	-	1.8	29.0	2.0	-	1.5	8.5	Bal	43-53	PTA Laser HIP	Wallex® 12 is a good choice for abrasive wear under high heat and corrosive conditions. Proven applications include cutting edges of blades in textile and carpet industries, saw tips in the timber industry, engine valves.
F	-	1.8	26.0	1.5	22.0	1.3	12.0	Bal	40-45	PTA Laser	Designed specifically for the hardfacing of internal combustion engine valves to give enhanced resistance to corrosion and erosion. Slightly higher hardness and fluidity than Wallex® 6, offering good resistance to wear and oxidation.
Cobalt Spray and Fuse Alloys											
40	2.0	0.6	16.2	2.0	23.5	1.9	7.6	Bal	41-46	Spray & Fuse PTA HVOF Laser	Wallex® 40 is a sprayable alternative to Wallex® 6, having the self-fluxing attribute which enables coatings to be fused, even in air. It is a good hard-surfacing choice where chemical or atmospheric corrosion is accompanied by metal on metal wear and/or impact.
42	1.7	0.9	18.5	2.5	13.5	3.0	8.0	Bal	45-50	Spray & Fuse HVOF	A cobalt-nickel alloy powder that forms deposits similar to those of Wallex® 50, but softer. Finished with carbide tools and grinding. Developed as a lower temperature alternative for many cobalt-6 applications.
50	3.4	0.8	19.0	2.0	18.0	2.8	10.0	Bal	56-61	Spray & Fuse PTA HVOF Laser	Wallex® 50 is a self-fluxing, sprayable cobalt alloy powder with excellent corrosion and abrasion resistance. It is considered a suitable alternative to Wallex® 1.
Contains Tungsten Carbide Paricles											
55	2.0	2.4	12.0	1.2	12.6	1.7	34.8	Bal	58 min.	Spray & Fuse	Wallex® 55 has been successful in lowering replacement costs on many different parts including: shaft sleeves, pump components, bushings, buffing fixtures, cutting tool chip breakers and high temperature , un-lubrictaed sleeve bearings operating in liquid sodium, liquid potassium and NaK.