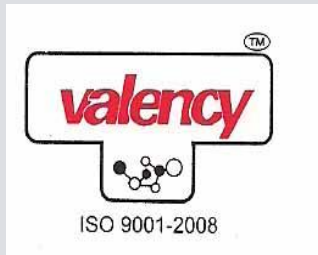


Consumables for Joining & Fabrication of Stainless Steels

'Valency' manufactures all types of AWS coded austenitic & Ferritic range of Stainless Steel Electrodes which are widely recognized for superb welding characteristics viz. very low spatter, smooth arcing and excellent slag detachability in addition to superior corrosion resistance.'



PRODUCT CATALOGUE FOR Electrodes for JOINING AND FABRICATION OF STAINLESS STEELS



A. STICK ELECTRODES

Product	Description	Classification	Applications	Typical Properties	Size and Current				
VALSTAIN A [AC/DC+]	ALL POSITION, EASY STRIKING, RESTRIKING & DETACHABILITY, SMOOTH BEAD, FINE RIPPLES, MINIMAL SPATTER, 19Cr/10Ni TYPE WELD, GOOD CORROSION RESISTANCE IN OXIDISING MEDIA LIKE NITRIC ACID	AWS : A5.4 E 308-16	Welding of AISI 301,302,304,308 and 308L type stainless steels	U.T.S. 585 N/mm ² , Elongation 38%,	Size (mm)	2.50	3.15	4.0	5.0
					Amps	40-70	70-100	100-140	140-180
VALSTAIN B [AC/DC+]	ALL POSITION, EASY STRIKING, RESTRIKING & DETACHABILITY, SMOOTH BEAD, FINE RIPPLES, MINIMAL SPATTER, 18Cr/12Ni/2 Mo TYPE WELD, SUPERIOR CORROSION RESISTANCE SPECIALITY IN SULPHURIC ACID, MIDIA, BETTER HEAT AND CREEP RESISTANCE THAN E-308 TYPE	AWS : A 5.4 E 316-16	Welding of AISI 316 & 317 type Plates, Pipes and for joining of wrought and cast materials of similar composition.	U.T.S. 590 N/mm ² , Elongation 36%, Ferrite Number 5-6	Size (mm)	2.50	3.15	4.0	5.0
					Amps	40-70	70-100	100-140	140-180
VALSTAIN C [AC/DC+]	ALL POSITION, EASY STRIKING, RESTRIKING & DETACHABILITY, SMOOTH BEAD, FINE RIPPLES, MINIMAL SPATTER, 25Cr/12 Ni TYPE WELD, SUPERIOR RESISTANCE TO CORROSION & OXIDATION UPTO 1000 ⁰ C	AWS : A 5.4 E309-16	Welding of AISI 309/309 S types, 18/8 stainless steels to M.S. or low alloy steels, manganese steels to m.s., 18/8 clad steels and self hardening type steels on which heat treatment after welding not possible.	U.T.S. 620 N/mm ² , Elongation 35%, Ferrite Number 12-18	Size (mm)	2.50	3.15	4.0	5.0
					Amps	40-70	70-120	100-140	140-190
VALSTAIN CMO [AC/DC+]	ALL POSITION, EASY STRIKING, RESTRIKING & DETACHABILITY, SMOOTH BEAD, FINE RIPPLES, MINIMAL SPATTER, 25Cr/12Ni/2.5 Mo TYPE WELD, HIGH STRENGTH, EXCELLENT CRACK RESISTIVITY IN DISSIMILAR METAL WELDING. SUPERIOR RESISTANCE TO CORROSION & OXIDATION UPTO 1100 ⁰ C	AWS : A 5.4 E 309 Mo -16	Welding of 309 & 317 type stainless to m.s. or low alloy steels, clad side of 18-11-Mo clad steels, overlay on ferritic steels, buffer layers etc	U.T.S. 640 N/mm ² , Elongation 35%, Ferrite Number 12-20	Size (mm)	2.50	3.15	4.0	5.0
					Amps	40-70	70-110	100-150	140-190

Product	Description	Classification & Approvals	Applications	Typical Properties	Size and Current				
VALSTAIN D [AC/DC+]	ALL POSITION, EASY STRIKING, RESTRIKING & DETACHABILITY, SMOOTH BEAD, FINE RIPPLES, MINIMAL SPATTER, 25Cr/20Ni TYPE AUSTENITIC WELD, SUPERIOR RESISTANCE TO SCALING UPTO 1100 - 1150 ⁰ C	AWS : A 5.4 E 310-16	Welding of AISI 309 & 310 stainless steels, Heat exchangers, heat treatment boxes, furnace plates, elements etc.	Y.S.330 N//mm ² min, U.T.S. 42-48 Kg/mm ² , Elongation 22% min., CVN at 0o C 47 J min.	Size (mm) Amps	2.50 40-70	3.15 60-100	4.0 80-130	5.0 130-175
VALMET 308 L [AC/DC+]	ALL POSITION, EASY STRIKING, RESTRIKING & DETACHABILITY, SMOOTH BEAD, FINE RIPPLES, MINIMAL SPATTER, WITH EXTRA LOW CARBON TYPE WELD, EXCELLENT RESISTANCE TO CORROSION IN OXIDISING MEDIA	AWS : A 5.4 E 308L-16	Welding of AISI 301, 302, 304, 304L, 308 & 308L types, Stainless steels wagons etc.	U.T.S. 575 N/mm ² , Elongation 40%	Size (mm) Amps	2.50 40-70	3.15 60-100	4.0 80-130	5.0 130-175
VALMET 316 L [AC/DC+]	ALL POSITION, EASY STRIKING, RESTRIKING & DETACHABILITY, SMOOTH BEAD, FINE RIPPLES, MINIMAL SPATTER, 18Cr/12 Ni/2 Mo WITH EXTRA LOW CARBON TYPE WELD, EXCELLENT RESISTANCE TO INTERGRANULAR CORROSION & CAVITATION.	AWS : A 5.4 E 316 L-16	Welding of AISI 316, 316L, 317 & 317L types for applications requiring corrosion & heat resistance in chemical, fertilizer, paper & food industries etc.	U.T.S. 615 N/mm ² , Elongation 38 %	Size (mm) Amps	2.50 40-70	3.15 60-100	4.0 80-130	5.0 130-175
VALMET 316 L (ZF) [AC/DC+]	ALL POSITION, EASY STRIKING, RESTRIKING & DETACHABILITY, SMOOTH BEAD, FINE RIPPLES, MINIMAL SPATTER, 18Cr/12 Ni/2 Mo WITH EXTRA LOW CARBON TYPE & ZERO FERRITE IN WELD FOR EXCELLENT CORROSION RESISTANCE & RADIOGRAPHIC QUALITY	AWS : A 5.4 E 316 L-16 [nearest]	For welding and cladding of 316 urea grade steels and other 18Cr/12Ni/2 Mo steels used in chemical & fertilizer industries	U.T.S. 600 N/mm ² , Elongation 38 %	Size (mm) Amps	2.50 40-70	3.15 60-100	4.0 80-130	5.0 130-175
VALMET 309 L [AC/DC+]	ALL POSITION, EASY STRIKING, RESTRIKING & DETACHABILITY, SMOOTH BEAD, FINE RIPPLES, MINIMAL SPATTER, 24 Cr/12 Ni WITH EXTRA LOW CARBON TYPE ALLOY GIVING EXCELLENT COMBINATION OF HIGH STRENGTH, DUCTILITY, HEAT & CORROSION RESISTANCE	AWS : A 5.4 E 309 L-16	For welding of AISI 309L type steels, carbon steels to S.S., joining of Manganese steels to mild steels etc.	U.T.S. 620 N/mm ² , Elongation 35%	Size (mm) Amps	2.50 40-70	3.15 60-100	4.0 80-130	5.0 130-175
VALMET 310 [AC/DC+]	ALL POSITION, EASY STRIKING, RESTRIKING & DETACHABILITY, SMOOTH BEAD, FINE RIPPLES, MINIMAL SPATTER, 25 Cr/20 Ni TYPE ALLOY GIVING EXCELLENT RESISTANCE TO HEAT & SCALING UPTO 1200 ⁰ C	AWS : A 5.4 E 310-16	For welding of AISI 310 type steels, as required in heat exchangers, furnace plates etc.	U.T.S. 620 N/mm ² , Elongation 32%	Size (mm) Amps	2.50 40-70	3.15 60-100	4.0 80-130	5.0 130-175

Product	Description	Classification & Approvals	Applications	Typical Properties	Size and Current				
VALMET 317 L [AC/DC+]	ALL POSITION, EASY STRIKING, RESTRIKING & DETACHABILITY, SMOOTH BEAD, FINE RIPPLES, MINIMAL SPATTER, 18 Cr/12Ni/ 3Mo WITH EXTRA LOW CARBON TYPE DEPOSIT GIVING MAXIMUM RESISTANCE TO STRESS CORROSION, HOT CRACKING & CHEMICAL CORROSION AT HIGH TEMPERATURE	AWS : A 5.4 E 317 L	For welding of AISI 316L or equivalent grades for corrosion resistance to sulphuric , sulphurous& phosphoric acid media	U.T.S. 610 N/mm ² , Elongation 36%	Size (mm) Amps	2.50 40-70	3.15 60-100	4.0 80-130	5.0 130-175
VALMET 318 [AC/DC+]	ALL POSITION, EASY STRIKING, RESTRIKING & DETACHABILITY, SMOOTH BEAD, FINE RIPPLES, MINIMAL SPATTER, 18 Cr/12Ni/ 2.5 Mo COLUMBIUM STABILIZED TYPE DEPOSIT FOR RESISTANCE TO CORROSION & PITTING GIVING IMPROVED CREEP STRENGTH	AWS : A 5.4 E 318 16	For welding of matching grades of steels.	U.T.S. 550 N/mm ² , Elongation 25%	Size (mm) Amps	2.50 40-70	3.15 60-100	4.0 80-130	5.0 130-175
VALMET 347 [AC/DC+]	ALL POSITION, EASY STRIKING, RESTRIKING & DETACHABILITY, SMOOTH BEAD, FINE RIPPLES, MINIMAL SPATTER, 18 Cr/10 Ni COLUMBIUM STABILIZED TYPE DEPOSIT GIVING EXCELLENT RESISTANCE TO INTERGRANULAR CORROSION	AWS : A 5.4 E 347 16	For welding of AISI 347 or equivalent grades of stainless steels.	U.T.S. 600 N/mm ² , Elongation 34%	Size (mm) Amps	2.50 40-70	3.15 60-100	4.0 80-130	5.0 130-175