



Applications

Fully austenitic electrode for joining high Mn-steel and Cr-Ni steels. Applications include joining of Manganese steel liners, cushion layer for excavator teeth, hammers, mill strikers.

Technical data

Current -: AC/DC (+)
Tensile Strength -: 690 N/mm²
Elongation -: 40%
Hardness (as deposited) -: 16 RC
Work hardens to 38 RC

**SPECTRUM
63**

Features and benefits

- * Good tensile strength and ductility.
- * Excellent machinability.
- * Good heat and scale resistance upto 850°C.
- * Fully austenitic, contact type electrode.

Applications

Special heavy coated austenitic Cr-Ni-Mn electrode for anti-wear surfacings on all steels and for overlaying high manganese steels as well as joining high alloy steels to low alloy / Non alloy steels. Application include drive Sprockets, Track pads, anvils, Hammers, Crushers rolls, Rail tracks.

Technical data

Current -: AC/DC (+)
Tensile Strength -: 690 N/mm²
Elongation -: 40%
Hardness (as deposited) -: 16 RC
Work hardness to -: 38 RC

**SPECTRUM
630**

Features and benefits

- * Suitable for tough crack and wear resistant joints.
- * Very high recovery around 160%
- * Deposits are work hardening in nature.
- * Resists corrosion and scaling upto 850°C.
- * Strongly recommended for elastic interpass under hard facing exposed to impact loads.

Applications

Heavy coated austenitic electrode with Cr-Ni-Mn deposit for alloy steel components and for overlaying high manganese steels. Application include hammers, mill strikers and cushion layers for excavator teeth.

Technical data

Current -: AC/DC (+)
Hardness as deposited -: 14 RC
Work Hardness -: 40 RC

**SPECTRUM
6300**

Features and benefits

- * Suitable for joining Mn-Steels.
- * Good impact resistance.
- * Very high recovery.
- * Deposits are work hardening in nature.
- * Scale resistance upto 900°C.

Applications

Special heavy coated austenitic electrode for most alloy steel components, and for overlaying high manganese steels as well as joining high alloy steels to low alloy / non alloy steels. Application includes Rail sections, Cushion layers for excavator teeth, Hammers and mill strikers, etc.

Technical data

Current -: AC/DC (+)
Tensile Strength -: 685 N/mm²
Elongation -: 40% Hardness -: 16 RC
Work hardness to -: 38 RC

**SPECTRUM
633**

Features and benefits

- * Very good tensile strength and ductility.
- * Excellent machinability.
- * Good impact resistance.
- * Suitable for joining Mn-Steels.
- * High recovery.

Applications

Special austenitic ferritic electrode for highly crack resistant joining of austenitic and ferritic steels, Mn steels and other alloy steels. Applications include shafts, gears, housings, construction machinery etc.

Technical data

Current -: AC/DC (+)
Tensile Strength -: > 800 N/mm²
Elongation -: > 25%

**SPECTRUM
65**

Features and benefits

- * Multipurpose, top strength austenitic - ferritic electrode
- * Excellent weldability without a trace of spatter.
- * All position welding.
- * Very good corrosion and frictional wear resistance.
- * Low heat input.



Applications

Contact type electrode for optimum strength, ductility, toughness & crack resistance in joining all types of steels & steel alloys with dissimilar thickness. Applications on shafts, hot trim plates, tool steels, spring steel, high alloy steels etc.

Technical data

Current -: AC/DC (+)
Tensile strength -: 835 N/mm²

SPECTRUM 65 B

Features and benefits

- * Versatile electrode for all steels & steels with dissimilar thickness.
- * Good corrosion & scale resistance.
- * Low heat input.
- * All position contact type electrode.
- * Easy slag removal.
- * Excellent crack resistance.

Applications

All position contact type low heat input electrode for joining all types of steels and difficult to weld steels. Applications include leaf and coil springs, cams, gears, hard Mn-steels, shafts, dies, hot trim plates, tool steels etc.

Technical data

Current:-AC/DC (+)
Tensile strength -: 845 N/mm²

SPECTRUM 65 D

Features and benefits

- * Ultimate strength, austenitic ferritic electrode.
- * Versatile electrode for all steels.
- * Deposits are machinable.
- * Welds in all positions.
- * Low-operating current avoids distortion.

Applications

Contact type specially formulated, low heat input electrode for optimum strength, ductility, toughness and crack resistance in joining all types of steels and steels with dissimilar thickness. Applications include spring steels, high alloy steel shafts, dissimilar steels

Technical data

Current -: AC/DC (+)
Tensile strength -: 860 N/mm²

SPECTRUM 65 D SPL

Features and benefits

- * Ultimate blend of tensile strength and ductility.
- * Versatile electrode for all steels and steels with dissimilar thickness.
- * Good corrosion and scale resistance.
- * Weld deposit work hardens in service.
- * Excellent crack resistance.
- * All position contact type electrode.

Applications

Low hydrogen contact type manual electrode for highly crack resistant joining of austenitic and ferritic steels, Mn steels and other alloy steels. Applications include repair of shafts, gears, housings and construction machinery etc.

Technical data

Current:-AC/DC(+)
Tensile Strength -: > 800 N/mm²
Elongation -: > 25%

SPECTRUM DS

Features and benefits

- * Multipurpose, top strength ferritic - austenitic electrode
- * Excellent weldability with controlled spatters.
- * All position welding.
- * Very good machinability.
- * Very good corrosion and frictional wear resistance.

Applications

Basic coated contact type low heat input electrode for crack resistant, radiographic welds on low carbon and HSLA steels. Applications include truck chassis, crane jibs, structures & beams, frames, ship building etc.

Technical data

Current -: AC/DC (+)
Tensile strength -: > 560 N/mm²
Elongation -: > 28%

SPECTRUM 960

Features and benefits

- * Basic coated electrode for highly stressed joints.
- * Deposits are highly crack resistant & resist aging.
- * Gives X-ray quality welds.
- * Very stable arc, minimum spatters.
- * All position weldability.

**Applications**

A specially metallurgically modified all position low heat input high strength electrode for joining, build up and repair of new, worn out or cracked steel structures, machinery components and other heavy duty equipments. Application includes hammer bases, columns, rams, sow blocks, keyways.

Technical data

Current -: AC/DC (+)
Tensile strength -: > 660 N/mm²
Elongation-: >35%

**SPECTRUM
960 M****Features and benefits**

- * Excellent ductility and high strength.
- * Radiographic quality welds.
- * Low heat input stable arc, controlled spatters.
- * All position weldability.
- * Welds are free from temper embrittlement.

Applications

All position, contact type manual electrode for crack resistant welding on low carbon steels of thin and thick gauge. Applications include ducts, casings, fuel tanks, pipe lines, air conditioning units, steel furniture, automobile bodies etc.

Technical data

Current-: AC/DC (+)
Tensile Strength-: 490 N/mm²
Elongation -: > 20%

**SPECTRUM
970****Features and benefits**

- * All position contact type electrode.
- * Impeccable weld beads.
- * Minimum heat input-minimum distortion and warpage.
- * Good crack resistivity.
- * Self lifting slag.
- * Easy strike-restrike.

Applications

All position contact type electrode suitable for joining thin and thick gauge mild steels. Applications include fabrication works, machinery guards, air-conditioning units, automobile bodies etc.

Technical data

Current-: AC/DC (+)
Tensile strength -: > 475 N/mm²
Elongation -: > 20%

**SPECTRUM
970 S****Features and benefits**

- * All position Touch welding' electrode.
- * Deposits uniform beads with excellent finish.
- * Gives radiographic quality weld deposits.
- * Self lifting slag.
- * Minimum heat input minimum distortion and residual stresses.

Applications

All position electrode for joining mild steels Application includes Fabrication Works, Machinery Guards, Air-conditioning ducts, Automobile Bodies, Tanks, Ship building, etc.

Technical data

Current-:AC/DC (±)
Tensile strength -: 490 N/mm²
Elongation -: > 20%

**SPECTRUM
970 SR****Features and benefits**

- * All position electrode
- * Beads are uniform homogeneous and of excellent profile.
- * Welds are of radiographic quality.
- * Easy slag release.
- * Low heat input minimises distortion and warpage.

Applications

Special high alloy low heat input electrode for joining high alloy steels and dissimilar joints between carbon steel/low alloy steel to high alloy steels. Applications include welding of furnace parts, static collars, journal areas, buckets etc.

Technical data

Current-: AC/DC (+)
Tensile strength-: > 585 N/mm²
Elongation -: > 30%

**SPECTRUM
980****Features and benefits**

- * High strength, excellent ductility.
- * Heat resistance upto 600°C.
- * All position contact type electrode, easy slag removal.
- * Machinable deposit.



Applications

Special synthetic austenitic Cr-Ni-Mn, manual electrode for tough crack resistant joints and surfacing on all steels. Applications include valve seats, impellers, shafts, cast steel parts, turbine blades and where deposit requirement is 18/8 type in first pass etc.

Technical data

Current -: AC/DC (+)
Tensile strength-: > 585 N/mm²
Elongation -: 30%

**SPECTRUM
990**

Features and benefits

- * Special synthetic austenitic Cr-Ni-Mn alloy.
- * Excellent weldability in contact, minimum spatters.
- * Good resistance to corrosion, erosion and heat.
- * Easily removable slag.

Applications

Specially developed alloy electrode for high tensile fine grained steels with high impact and temperature resistance. Suitable for joining and repair of carbon and low alloy steels, gear wheels, cast steels etc.

Technical data

Current -: AC/DC (+)
Tensile strength-: > 580 N/mm²
Elongation -: 24%

**SPECTRUM
952**

Features and benefits

- * Temperature resistance up to 400° C.
- * High crack resistance.
- * High tensile strength and ductility.
- * Excellent weld beads.

Applications

A basic coated high strength, metallurgically balanced alloy electrode with radiographic quality welds. Suitable for repairing and joining in power plants, boilers etc. Weld metal have a heat resistance upto 550° C.

Technical data

Current -: AC/DC (+)
Tensile strength-: > 650 N/mm²
Elongation -: > 25%

**SPECTRUM
953**

Features and benefits

- * Basic coated.
- * Radiographic quality welds.
- * High tensile strength.
- * Excellent weld beads.

Applications

A specially developed alloy for hot forge die repair. Deposition have good strength and hardness upto 400° C. Suitable for high strength joining, moulds and tools, penstocks etc.

Technical data

Current -: AC/DC (+)
Tensile strength-: > 610 N/mm²
Elongation -: > 32%
Hardness -: > 38 RC

**SPECTRUM
956**

Features and benefits

- * High Strength
- * Metal to metal wear resistance.
- * Resistance to deformation at high temperature.
- * Excellent weldability and beads.

Applications

A low hydrogen, micro alloyed high tensile strength radiographic quality electrode with easy slag removal and excellent bead suitable for repair and maintenance of earth moving equipments and heavy structures subject to dynamic loading and mechanical restraint.

Technical data

Current -: AC/DC (+)
Tensile strength-: > 820 N/mm²

**SPECTRUM
958**

Features and benefits

- * Very high tensile strength and excellent resistance to impact
- * Radiographic quality welds.
- * Stable arc, easy slag removal.