

# PRODUCTS & COMPLETE SYSTEMS

## for Cathodic Protection & AC Mitigation



UNDERGROUND IMPRESSED CURRENT ANODES		
PRODUCT	DESCRIPTION	USE
<b>MMP™-Anode</b>	MMO anodes packaged in coke backfill	Underground surface anode beds
<b>Driving Cone Anode</b>	MMO anode in coke backfill with driving cone & heavier container	Installation in soft soils
<b>PL®-Anode</b>	Platinum/niobium anodes packaged in coke backfill	Underground surface anode beds
Bare MMO Anode	Tubes, wire & rod with cables attached	Underground: coke breeze recommended
Graphite Anode	Bare/packaged in coke backfill; cables attached	Underground surface anode beds
HSCI Anode (High Silicon Cast Iron)	Bare/packaged in coke backfill; cables attached	Underground surface anode beds

DEEP ANODES & SYSTEMS		
PRODUCT	DESCRIPTION	USE
<b>DURAMMO™ Deep Anode System</b> <sup>③</sup>	Factory assembled, continuous MMO deep anode system with KYNEX® connections. Complete system with coke backfill, bottom weight & return cable	Deep anode installations
MMO Tubular Anode	Individual anodes with cables attached	Deep Anode system: coke, vent pipe, & bottom weights are additional
Graphite Anode	Individual anodes with cables attached	Deep anode beds: coke, vent pipe & bottom weights are additional
HSCI Anode	Individual anodes with cables attached	Deep anode beds: coke, vent pipe & bottom weights are additional
<b>Deep Anode System Casing Kit</b>	Casing kit for the top of the bore hole	Deep anode beds
<b>SuperVent™ Vent Pipe</b>	Non-clogging vent pipe in continuous, one piece lengths	Deep anode beds

**KEY**

① Patented    ② Patent Pending  
 ③ Contains MATCOR patented products  
**Bold** indicates MATCOR proprietary products

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### IMPRESSED CURRENT LINEAR ANODES

PRODUCT	DESCRIPTION	USE
SPL™-FBR-Anode	③ SPL-Anode packaged in fabric tube and braiding	Pipelines, underground applications
Iron Gopher®	③ SPL™-FBR-Anode with stainless steel braiding and pulling features	Horizontal directional drilling applications
Concentric Ring Anode System	③ SPL-Anodes made to be placed in rings. Available as SPL-FBR-Anode and SPL-SandAnode™	Primary use is under above ground storage tanks
SPL-SandAnode™	② ③ SPL-FBR-Anode where contact with or close proximity to metal structure exists	Under above ground storage tanks where space is limited
SPL™-INT-Anode	① ③ SPL-Anode in HDPE housing; special entrance fittings	Inside of pipelines
SPL™-Braid-Anode	③ SPL-Anode assembly w/o coke backfill in dense braid wrap	Special applications in soil and water
SPL™-HDPE-Anode	③ SPL-Anode in high density polyethylene housing without backfill	Water environments, concrete

*NOTE: All SPL-Anodes use Kynex® connections*

### PROBE ANODES

PRODUCT	DESCRIPTION	USE
MATCOR Probe Anode	MMO or platinum/niobium anode in waterproof pipe type housing	For CP system for internal surfaces such as water boxes and vessels
MATCOR Probe Reference Electrode	Probe reference electrode using Ag/Ag/Cl, zinc, platinum or other electrode elements	For CP system for internal surfaces such as water boxes and vessels

### MARINE/WATER ANODES

PRODUCT	DESCRIPTION	USE
SEA-BOTTOM Anode™	MMO anode(s) mounted on concrete sled w/cabbling	CP systems for submerged structures
PW™-Anode	MMO or platinum/niobium anodes in protective, rigid, perforated housing for hanging, w/cable	CP systems for docks, piers, piles, sheet piles, large open vessels
PF™-Anode	MMO or platinum/niobium anodes encased in densely braided kynar stranding	High chloride applications, inside of water tanks, water wells, and vessels
ORB™ Anode	① Marine anode sled with round MMO anode, weight and cables for high current output	Marine structures: platforms docks piers, submerged structures.
SEA-FLOOR™ Anode	Single MMO or platinum/niobium anode in rigid HDPE perforated housing on concrete base w/cable	Medium current output marine CP systems
MATCOR PILE-Anode	MMO or platinum/niobium anodes in non-metallic housing for direct mount to structure	CP systems for sheet piles, round piles and H-Piles
Custom Anode Sleds	Anode sleds made to client's specifications or designed by MATCOR for unique applications	Marine CP systems

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### IMPRESSED CURRENT SYSTEM COMPONENTS

PRODUCT	DESCRIPTION	PRODUCT	DESCRIPTION
Rectifiers	Air-cooled, oil-cooled, solar, constant current, constant potential, explosion proof, multi-circuit	Thermite Welding	Molds, charges
CP Cables	HMWPE, Kynar, Halar, PVC, XLPE, armored, custom	Junction Boxes	Made to client or MATCOR specifications
<b>Centralizers</b>	For non-Durammo deep anode systems	Test Stations	All types available
<b>SuperVent™</b>	Deep anode/surface anode bed vent pipe	Splice kits	Other manufacturers
<b>MATCOR Splice Kits</b>	MX-ISPZ resin splice kits	Miscellaneous Components	Electrical fittings, marking tapes, AC wiring/cables, etc.

### AC MITIGATION MATERIALS

PRODUCT	DESCRIPTION	PRODUCT	DESCRIPTION
<b>The MITIGATOR®</b>	MATCOR linear, packaged AC mitigation system	Decouplers	Molds, charges
Cables	HMWPE, Kynar, Halar, PVC, XLPE, armored, custom for connecting decouplers to grounding	Other grounding material	Copper cable, zinc ribbon anode, zinc grounding cells

*Special Note: MATCOR engineering provides AC mitigation modeling and engineering services.*

### REFERENCE ELECTRODES

PRODUCT	DESCRIPTION	PRODUCT	DESCRIPTION
<b>MATCOR PRC-UG Underground CUSO4 Reference Cell</b>	Permanent reference electrode packaged in prepared backfill	Probe Reference Electrodes	Ag/Ag/Cl, zinc, other for internal monitoring
<b>MATCOR PR-UT Fresh Water Reference Cell</b>	For water tanks and fresh water applications	Steel-in-Concrete Electrodes	Ag/Ag/Cl, zinc and other materials available
<b>MATCOR Driving Cone Electrode</b>	For installation in soft soils	Underground Zinc	Packaged in prepared backfill
Ag/Ag/Cl Marine Electrodes	Permanent and portable types	Custom	For unique applications

### SACRIFICIAL ANODES

Magnesium Packaged Anodes	Packaged Zinc Anodes	Magnesium & Zinc Ribbon Anodes
Zinc Grounding Cells	Aluminum & Alloyed Anodes for Marine	

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### COMPLETE CATHODIC PROTECTION SYSTEMS

MATCOR's cathodic protection systems include all components for a complete system including anodes, cables, rectifier/ controllers and special components. MATCOR can provide installation drawings and instructions or manage your installation.

SYSTEM	DESCRIPTION
<b>WATER TANK &amp; WASTE WATER SYSTEMS: Impressed Current Systems Using the MATCOR PF™-Anode</b>	
PF-Anode in hanging configuration	System for water tanks: Anodes hanging from supports. System includes anodes, rectifier, clevis hangers, handhole covers, cabling, reference electrode(s), hardware
PF-Anode in Floating Ring Configuration	System for water tanks: Anode ring floats below water level. System includes anodes, rectifier, weld rings, floats, support roping cabling, reference electrode(s), hardware
<b>MATCOR Water Well CP System</b>	For extremely deep wells up to 2,000 ft. deep
<b>SEA-FLOOR™ Anode System</b>	CP systems for large water and waste water tanks/reservoirs
<b>STEEL-IN-CONCRETE CATHODIC PROTECTION SYSTEMS</b>	
CPBD™-II System	Saw slot anode system
CPBD-III System	Conductive coating system
CPBD-V System	<b>1</b> Precast anode plate system
CPBD-VI System	Expanded MMO mesh anode system
<b>ELEVATOR CP SYSTEM</b>	
<b>PLE™-System</b>	Impressed current anode system for hydraulic elevators: includes anodes, rectifier reference electrodes, cabling, fittings
Sacrificial Anode System	Sacrificial anode system for elevators
<b>CONCENTRIC RING ANODE SYSTEM</b>	
<b>Concentric Ring Anode System</b>	The system uses either MATCOR SPL™-FBR-Anodes or the SPL-SandAnode™ System. Includes anode assemblies, reference electrodes & cabling.
<b>FRAC TANK ANODE CATHODIC PROTECTION SYSTEM</b>	
<b>FRAC Tank CP System</b>	<b>2</b> CP system for the internal protection of frac water and other tanks in rugged situations.

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