



# SLIP RING & CABLE REEL

- EXPLOSION PROOF SERIES
- MARINE SERIES
- STEEL INDUSTRY AND EARTHMOVING MACHINERY
- MINING AND DRILLING
- INDUSTRIAL AND AUTOMATION

2024





**SPM Special Machine** is a young company from Milan (Italy) specialized in slip ring and cable reel.

The strength of the SPM is the twenty-year experience of Team working in different industrial sectors (mining, marine and industrial, automotive and testing).

Thanks to their creative ability, the team over the years has revised all the products on the market in terms of technology, quality, reliability and safety, differentiating themselves from competitors with extremely different and effective solutions.





# Mission , Vision and Values

## MISSION

- Building devices and electromechanical systems, in an innovative way and with materials of excellence. The main business objective is that all products manufactured by SPM must function reliably and safely in hazardous and harsh environments in compliance with international standards.

## VISION

- Designing and building devices and electromechanical systems by focusing on customer needs, structuring together with him a vision of continuous improvement of the product and the service.

## VALUES

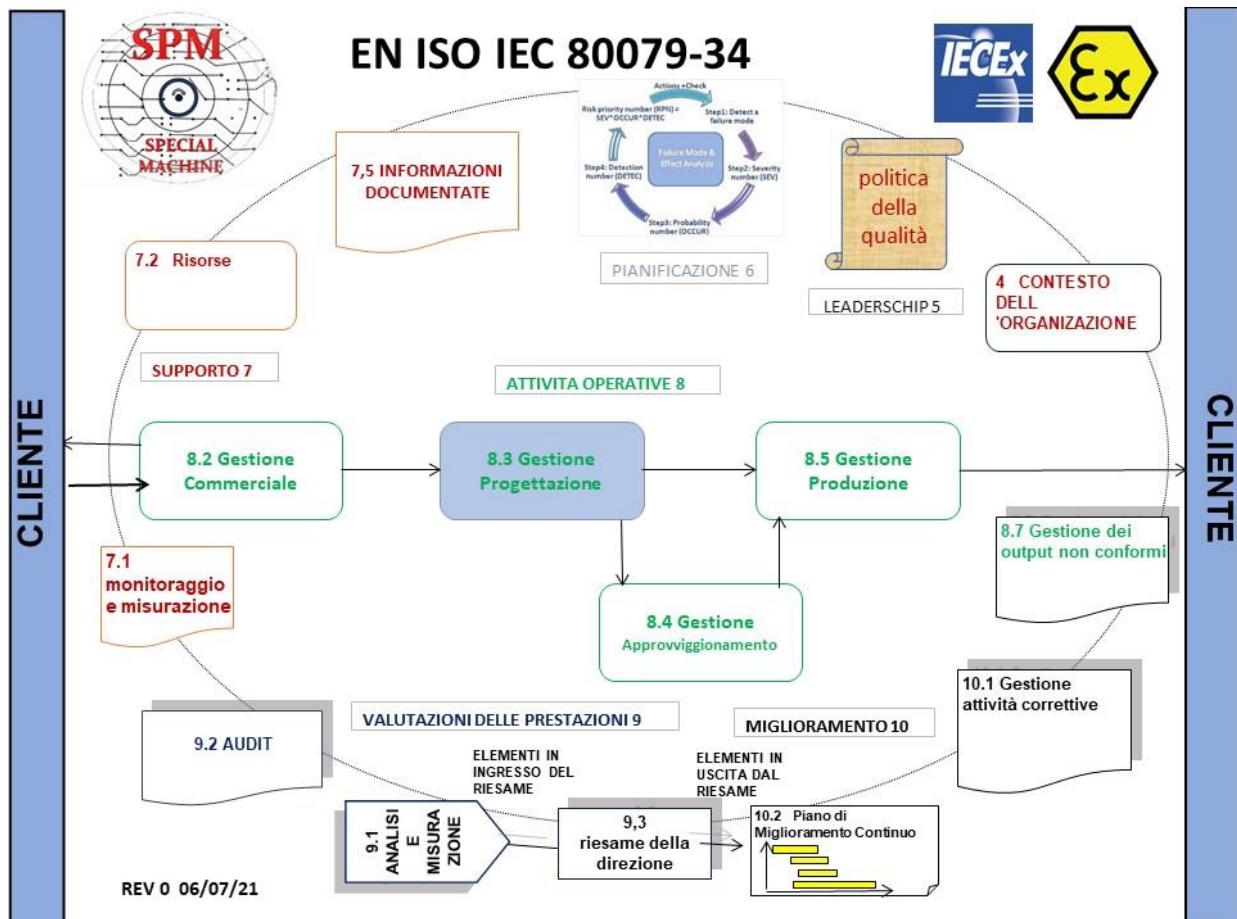
- Transparency;
- Professionalism;
- Continuous improvement;
- Customer satisfaction;
- The reliability;
- The responsibility;
- Innovation and creativity.



# The Quality System and production processes

EN ISO IEC 80079-34:2018

Explosive atmospheres -- Part 34: Application of quality systems for ex product manufacture





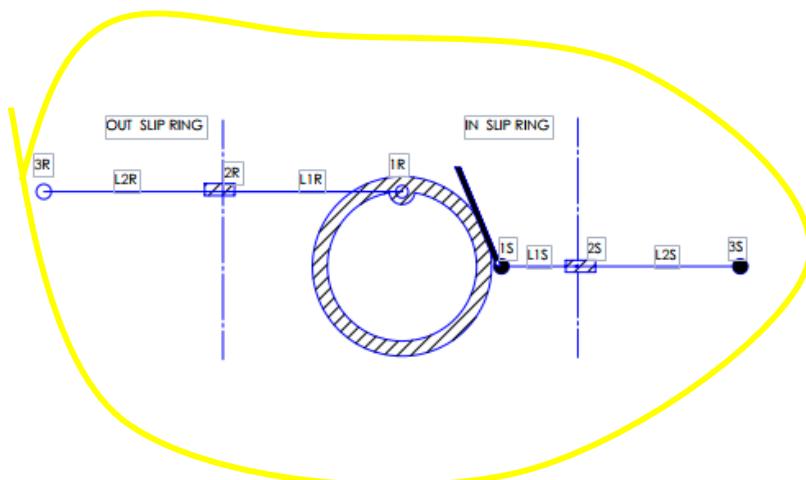
## Our innovative patented electrical contact system

The leaf foil brush system is a particular brush that slides on a surface of a brass or bronze ring.

It has the function of transmitting power electricity, analog and digital signals from a fixed point (brush) to a rotating mobile one (ring) (input = ring / output = brush)

The main advantages of the system are:

- 1) Compactness and constructive simplicity;
- 2) Ease of maintenance;
- 3) Low electrical resistivity values ( $0.2 < R < 6$  mohm)
- 4) Good values of the characteristic impedance of the ring / brush system
- 5) Low friction value (Good ring / brush smoothness).
- 7) Low overheating at the contact point.
- 8) Low overtemperature values of the terminals in case of failure
- 9) Rapid cooling in case of failure at the contact point





# EXPLOSION PROOF SERIES



# SLIP RING



## SLIP RING EXPLOSION PROOF SREX150 SERIES

SLIP RING TYPE	SREX150 SERIES
Protetion Ex	Exdb IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	In=150 A
Max Voltage	Vn=1000 VCA
Number size	SREX151/SREX152/SREX153
ATEX SCHEME	II 2G Edb IIB T5 Gb
IECEX SCHEME	Exdb IIB T5 Gb



# SLIP RING



INGRESS  
PROTECTION  
**IP66**

## ROTARY JOINT EXPLOSION PROOF RJEX SERIES

ROTARY JOINT	RJEX
Protetion Ex	Ex h
TYPE OF FLUID	OIL, AIR, WATER
max. pressure	500 bar
Max diameter	500 mm
Type port	G3/8- ---G2
ATEX SCHEME	II 2G Exh IIB T5 Gb



# SLIP RING



## SLIP RING EXPLOSION PROOF SREX300 SERIES

SLIP RING TYPE	SREX300 SERIES
Protetion Ex	Exdb IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	In=300 A
Max Voltage	Vn=1000 VCA
Number size	SREX301/SREX302/SREX302
ATEX SCHEME	II 2G Edb IIB T5 Gb
IECEx SCHEME	Exdb IIB T5 Gb



# SLIP RING



## SLIP RING EXPLOSION PROOF SREX506 SERIES

SLIP RING TYPE	SREX506 SERIES
Protetion Ex	Exdb IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	In=638 A
Max Voltage	Vn=24 KV
Number size	SREX506
ATEX SCHEME	II 2G Edb IIB T5 Gb
IECEx SCHEME	Exdb IIB T5 Gb



# SLIP RING



SREX690  
SERIES

## SLIP RING EXPLOSION PROOF SREX690 SERIES

SLIP RING TYPE	SREX690 SERIES
Protetion Ex	Exdb IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	In=2000 A
Max Voltage	Vn=24 KV
Number size	SREX691,SREX692, SREX693
ATEX SCHEME	II 2G Edb IIB T5 Gb
IECEx SCHEME	Exdb IIB T5 Gb

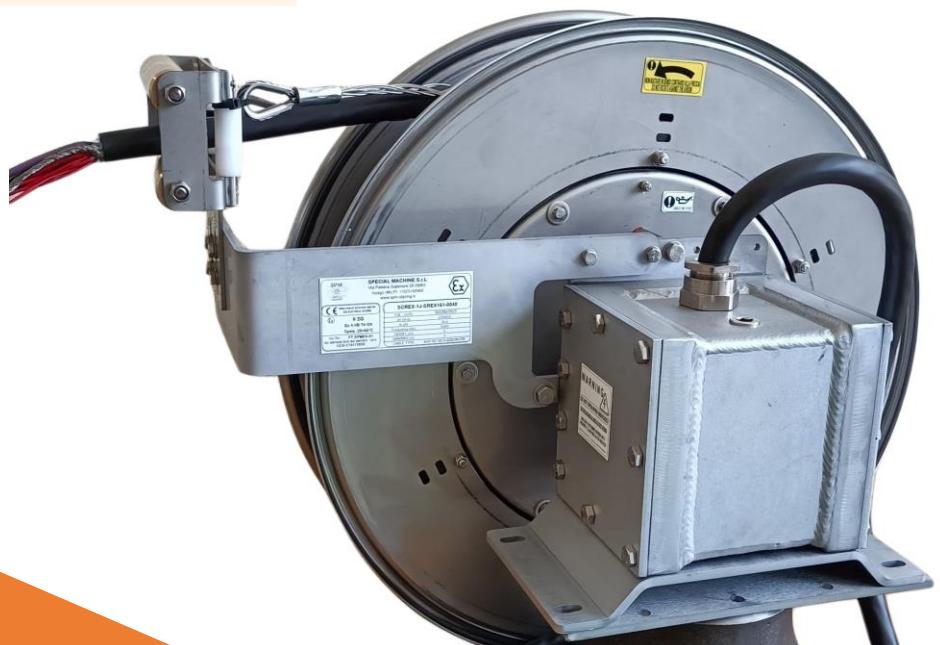


# SPRING CABLE REEL



## SPRING CABLE REEL EXPLOSION PROOF SCREX-A SERIES

SLIP RING TYPE	SCREX-A SERIES
Protetion Ex	Ex h / Exdb
TYPE OF RING	POWER ,AUXILIAR , SIGNAL +ROTAY SENSOR+ICLINOMETER
max. Current	In=50 A
Max Voltage	Vn=680 V
Meter max	20 mt
ATEX SCHEME	II 2G Exh IIB T5 Gb

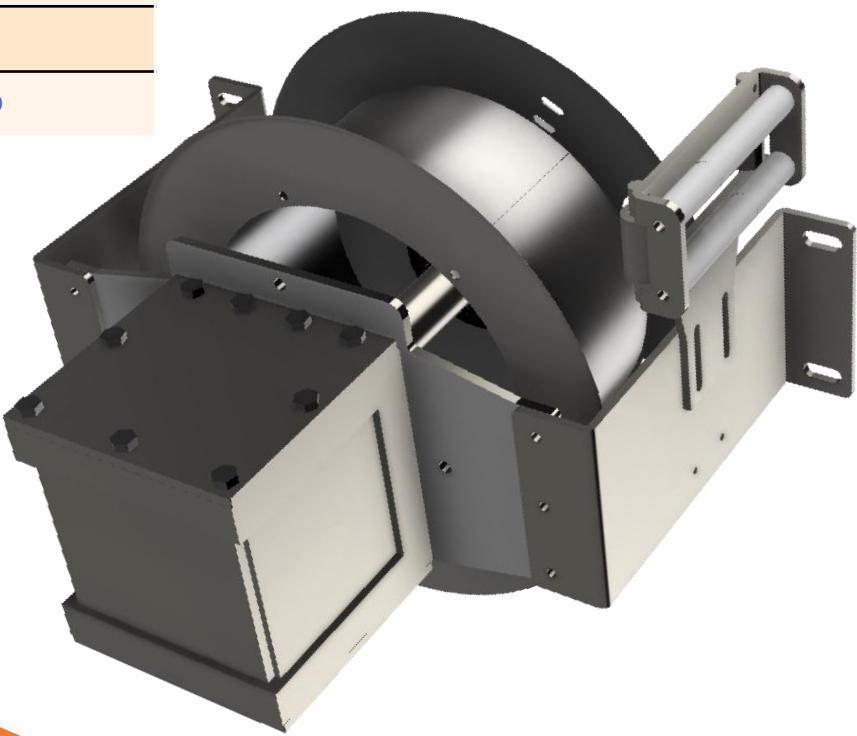


# SPRING CABLE REEL



## SPRING CABLE REEL EXPLOSION PROOF SCREX-B SERIES

SLIP RING TYPE	SCREX-B SERIES
Protetion Ex	Ex h / Exdb IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL +ROTAy SENSOR+ICLINOMETER
max. Current	In=50 A
Max Voltage	Vn=680 V
Meter max	20 mt
ATEX SCHEME	II 2G Exh IIB T5 Gb



# SPRING CABLE REEL



## SPRING CABLE REEL EXPLOSION PROOF SCREX-SK SERIES

SLIP RING TYPE	SCREX-SK SERIES
Protetion Ex	Ex h / Exdb IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL +ROTAy SENSOR+CLINOMETER
max. Current	In=150A
Max Voltage	Vn=680 V
Meter max	50 mt
ATEX SCHEME	II 2G Exh IIB T5 Gb



# MOTOR CABLE REEL



## MOTOR CABLE REEL EXPLOSION PROOF MCREX- SERIES

SLIP RING TYPE	MCREX-SERIES
Protetion Ex	Ex h / Exdb IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL +ROTAY SENSOR+ICLINOMETER
max. Current	In=150 A
Max Voltage	Vn =690 V
Meter max	200 mt
ATEX SCHEME	II 2G Exh IIB T5 Gb

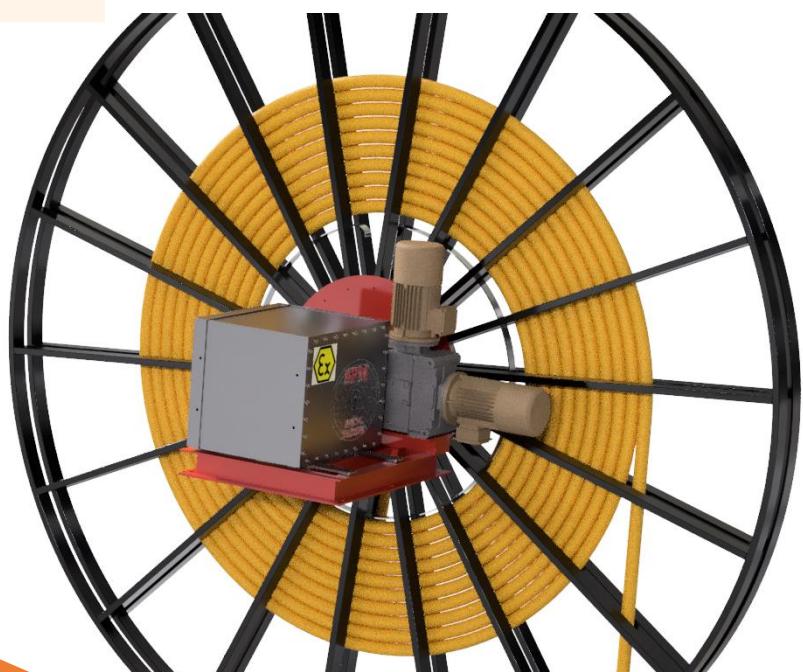


# MOTOR CABLE REEL



## MOTOR CABLE REEL EXPLOSION PROOF MCREX-HP SERIES

SLIP RING TYPE	MCREX-HP SERIES
Protetion Ex	Ex h / Exdb IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL +ROTAY SENSOR+ICLINOMETER
max. Current	In=640 A
Max Voltage	Vn =24kV
Meter max	400 mt
ATEX SCHEME	II 2G Exh IIB T5 Gb



# MOTOR CABLE REEL



## MOTOR CABLE REEL EXPLOSION PROOF MINING MCREX-MMV01 SERIES

SLIP RING TYPE	MCREX-MMV SERIES
Protetion Ex	Ex h / Exdb IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL +ROTAY SENSOR
max. Current	In=640 A
Max Voltage	Vn =24kV
Meter max	500 mt
ATEX SCHEME	I M2 Exh I Mb



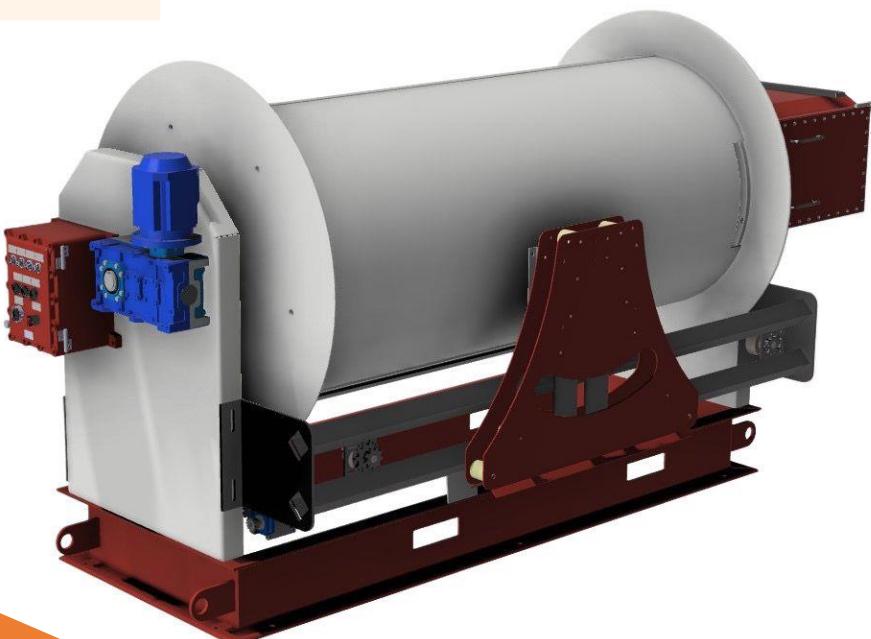
Slip Ring  
Medium  
Voltage

# MOTOR CABLE REEL



## MOTOR CABLE REEL EXPLOSION PROOF MINING MCREX-MMV02 SERIES

SLIP RING TYPE	MCREX-MMV SERIES
Protetion Ex	Ex h / Exdb IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL +ROTAY SENSOR
max. Current	In=640 A
Max Voltage	Vn =24kV
Meter max	500 mt
ATEX SCHEME	I M2 Exh I Mb



Slip Ring  
Medium  
Voltage

# JUCTION BOX



## JBMT JUCTION BOX EXeb MEDIUM VOLTAGE ULTRA COMPACT ISOLATION SYSTEM

TYPE	JBMT CONNECTION SERIES
Protection	IP67
Max voltage operation	20 KV
max. Current busbars	In=680 A
Max Voltage	Vn=24KV
RATED POWER FREQ WITHSTAND VOLTAGE	50 KV
construction steel	AISI316L/Carbon steel
UE SCHEME	2014/34/UE
STANDARD	IEC 60079-7 II 2G EX eb IIB Gb I M2 EX e I Mb



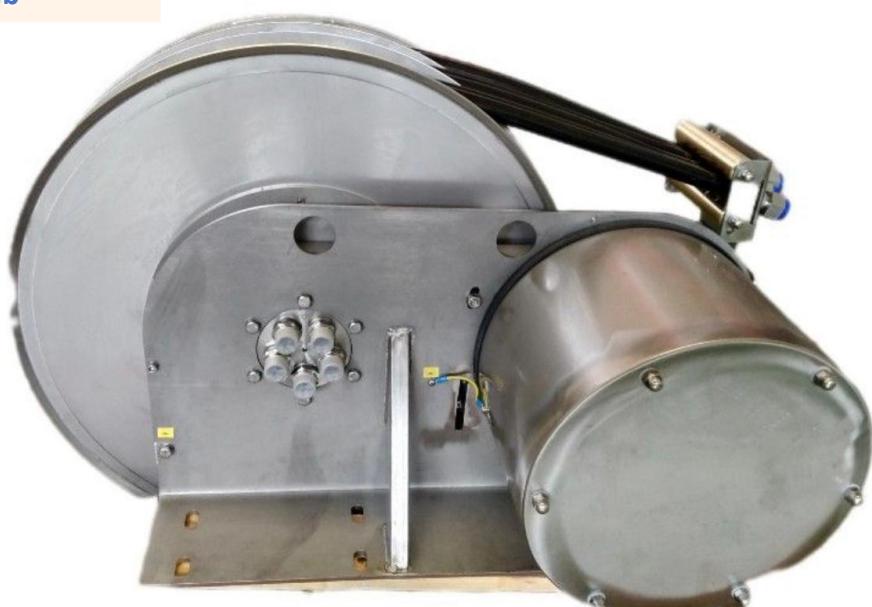
# SPRING HOSE REEL



AISI  
316L

## SPRING HOSE REEL EXPLOSION PROOF SHREX-SK SERIES

SLIP RING TYPE	SHREX-SK SERIES
Protection Ex	Ex h
TYPE OF FLUID	OIL, AIR, WATER
max. pressure	500 Bar
Type port	G3/8—G2
Meter max	30 mt
ATEX SCHEME	II 2G Exh IIB T5 Gb

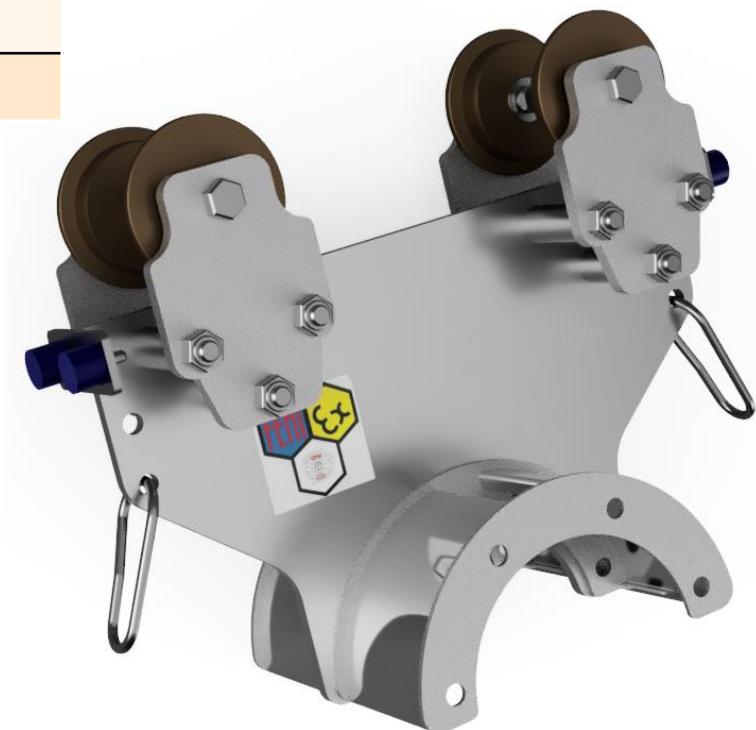


# CABLE TROLLEY



## CABLE TROLLEY EXPLOSION PROOF CT100EX SERIES

SLIP RING TYPE	SHREX-SK SERIES
Protetion Ex	Ex h
STRUCTURE	AISI316L / STEEL WITH SPECIAL GALVANIC TREATMENT
WEELS	SPARK-PROOF
STATIC ELECTRICITY	Grounding system
ATEX SCHEME	II 2G Exh IIB T5 Gb





# MARINE SERIES



# SLIP RING

INGRESS  
PROTECTION

**IP66**



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316L

## MARINE SAFETY **SLIP RING** **SR150 SERIES**

SLIP RING TYPE	SR150 SERIES
Protection	IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	In=150 A
Max Voltage	Vn=1000 VCA
Number size	SR151/SR152/SR153
UE SCHEME	2006/42/CE
DNV SCHEME	Ships 2019-07



# SLIP RING

INGRESS  
PROTECTION

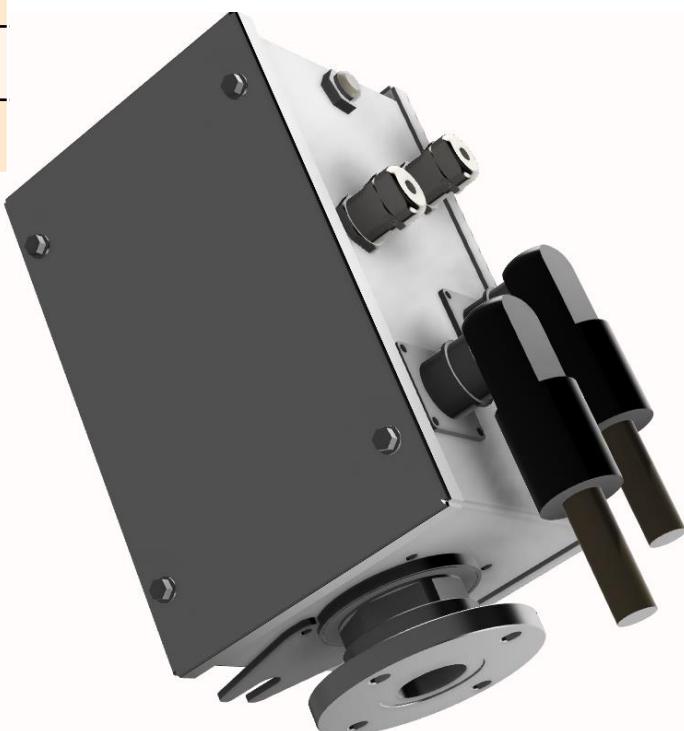
**IP66**



**AISI  
316L**

## MARINE SAFETY **SLIP RING** **SR200 SERIES**

SLIP RING TYPE	SR200 SERIES
Protetion	IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	In=200 A
Max Voltage	Vn=1000 VCA
Number size	SR201/SR202/SR203/SR204
UE SCHEME	2006/42/CE
DNV SCHEME	Ships 2019-07



# SLIP RING

INGRESS  
PROTECTION

IP66



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## MARINE SAFETY SLIP RING SR250 SERIES

SLIP RING TYPE	SR250 SERIES
Protection	IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	In=250 A
Max Voltage	Vn=1000 VCA
Number size	SR253/SR254/SR255/SR256 / SR257/SR258
UE SCHEME	2006/42/CE
DNV SCHEME	Ships 2019-07



# SLIP RING

INGRESS  
PROTECTION

**IP66**

**SPM**

SPECIAL  
MACHINE

**AISI  
316L**

## MARINE SAFETY **SLIP RING+BOX** **SR250 SERIES**

SLIP RING TYPE	SR250 SERIES
Protection	IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	In=250 A
Max Voltage	Vn=1000 VCA
Number size	SR253/SR254/SR255/SR256/ SR257/SR258
UE SCHEME	2006/42/CE
DNV SCHEME	Ships 2019-07



# SLIP RING

INGRESS  
PROTECTION

**IP66**



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## MARINE SAFETY **SLIP RING** **SR320 SERIES**

SLIP RING TYPE	SR320 SERIES
Protection	IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	In=300 A
Max Voltage	Vn=1000 VCA
Number size	SR323/SR324/SR325/SR326
UE SCHEME	2006/42/CE
DNV SCHEME	Ships 2019-07



# SLIP RING

INGRESS  
PROTECTION

**IP66**



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## MARINE SAFETY **SLIP RING** **SR400 SERIES**

SLIP RING TYPE	SR400SERIES
Protection	IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	In=500 A
Max Voltage	Vn=1000 VCA
Number size	SR406/SR408/SR4/SR326
UE SCHEME	2006/42/CE
DNV SCHEME	Ships 2019-07



# SLIP RING

INGRESS  
PROTECTION

**IP66**



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## MARINE SAFETY **SLIP RING** **SR500 SERIES**

SLIP RING TYPE	SR500 SERIES
Protection	IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	In=600 A
Max Voltage	Vn=1000 VCA
Number size	SR508/SR510/SR512/SR514
UE SCHEME	2006/42/CE
DNV SCHEME	Ships 2019-07



# SLIP RING

INGRESS  
PROTECTION

**IP66**



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## MARINE SAFETY **SLIP RING** **SR600 SERIES**

SLIP RING TYPE	SR600 SERIES
Protection	IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	I <sub>n</sub> =600 A
Max Voltage	V <sub>n</sub> =24KVCA
Number size	SR608/S6510/SR612/SR614
UE SCHEME	2006/42/CE
DNV SCHEME	Ships 2019-07



Slip Ring  
Medium  
Voltage

# SLIP RING

INGRESS  
PROTECTION

**IP66**



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## MARINE SAFETY **SLIP RING** **SR1000 SERIES**

SLIP RING TYPE	SR600 SERIES
Protection	IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	I <sub>n</sub> =600 A
Max Voltage	V <sub>n</sub> =24KVCA
Number size	SR608/S6510/SR612/SR614
UE SCHEME	2006/42/CE
DNV SCHEME	Ships 2019-07



Slip Ring  
Medium  
Voltage

# SPRING CABLE REEL MARINE



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316L

MARINE SAFETY

## SPRING CABLE REEL MARINE SCRL SERIES

CABLE REEL TYPE	SCRL SERIES
Protection	IP67
TYPE OF RING	POWER , AUXILIAR , SIGNAL +ROTAY SENSOR+CLINOMETER
max. Current	I <sub>n</sub> =150 A
Max Voltage	V <sub>n</sub> =1000
Number size	SCRL02/SCRL03/SCRL05
Meter max	50 mt
UE SCHEME	2006/42/CE
DNV SCHEME	Ships 2019-07



# SPRING CABLE REEL MARINE

INGRESS  
PROTECTION  
**IP67**

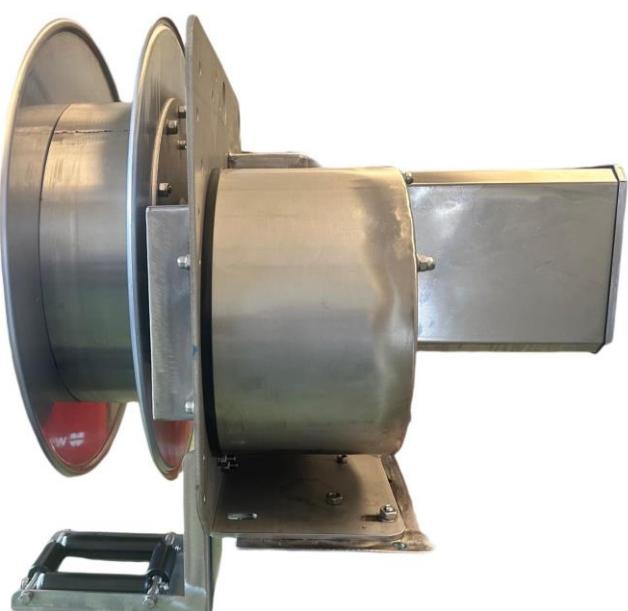


AISI  
316L

## MARINE SAFETY

### SPRING CABLE REEL MARINE SCRL-SK SERIES

CABLE REEL TYPE	SCRL SERIES
Protection	IP67
TYPE OF RING	POWER ,AUXILIAR , SIGNAL +ROTAY SENSOR+CLINOMETER
max. Current	In=250 A
Max Voltage	Vn=1000
Number size	SCROL SK
Meter max	100 mt
UE SCHEME	2006/42/CE
DNV SCHEME	Ships 2019-07



# MOTOR CABLE REEL MARINE



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316L

MARINE SAFETY

## MOTOR CABLE REEL MARINE MCRL SERIES

SPRING CABLE REEL TYPE	MCRL SERIES
Protection	IP66
TYPE OF RING	POWER , AUXILIAR , SIGNAL
max. Current	In=1000 A
Max Voltage	Vn=24KV
Number size	MCRL A140 , MCRL A160 MCRL A200
Meter max	400 mt
UE SCHEME	2006/42/CE
DNV SCHEME	Ships 2019-07



# MOTOR CABLE REEL



AISI  
316L

MARINE SAFETY

**OPS (ON SHORE POWER SUPPLY)**

Version Harbour Dock

SPRING CABLE REEL TYPE	MCRL SERIES
Protection	IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	I <sub>n</sub> =2000 A
Max Voltage	V <sub>n</sub> =24KV
Number size	MCRL OPS 1/2/3/4/5
Meter max	60 mt
UE SCHEME	2006/42/CE
SCHEME	IEC/IEEE 80005-1



Slip Ring  
Medium  
Voltage

# MOTOR CABLE REEL



AISI  
316L

MARINE SAFETY

**OPS (ON SHORE POWER SUPPLY)**

Version Ship

SPRING CABLE REEL TYPE	MCRL SERIES
Protection	IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	I <sub>n</sub> =2000 A
Max Voltage	V <sub>n</sub> =24KV
Number size	MCRL OPS 1/2/3/4/5
Meter max	60 mt
UE SCHEME	2006/42/CE
SCHEME	IEC/IEEE 80005-1



# MOTOR CABLE REEL

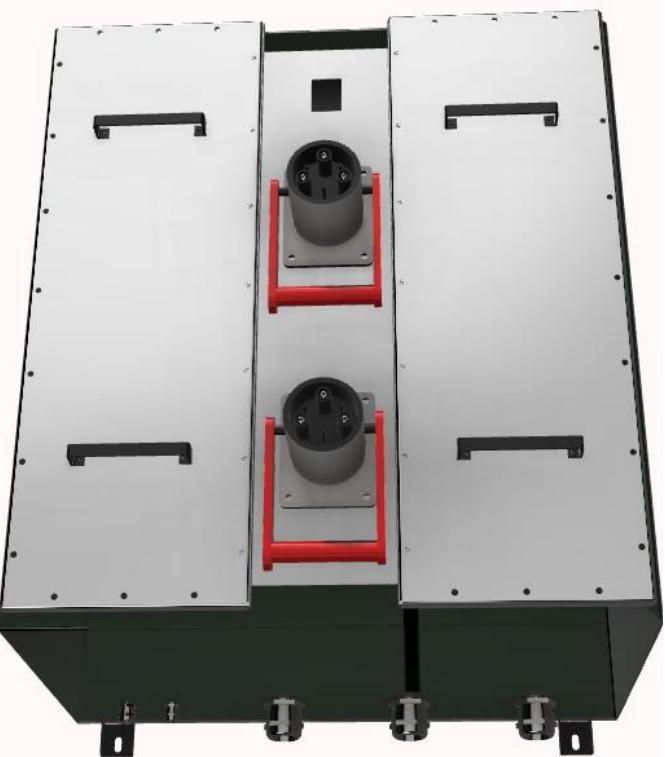


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MARINE SAFETY

## JBMT JUNCTION BOX CONNECTION MEDIUM VOLTAGE

TYPE	jbmt SERIES
Protection	IP67
Max voltage operation	20 KV
max. Current	In=680 A
Max Voltage	Vn=24KV
Number connectors	2
	60 mt
UE SCHEME	2006/42/CE
SCHEME	IEC/IEEE 80005-1



# JUCTION BOX MT



AISI  
316L

MARINE SAFETY

## JBMT JUCTION BOX MEDIUM VOLTAGE ULTRA COMPACT ISOLATION SYSTEM

TYPE	JBMT CONNECTION SERIES
Protection	IP67
Max voltage operation	20 KV
max. Current busbars	In=680 A
Max Voltage	Vn=24KV
RATED POWER FREQ WITHSTAND VOLTAGE	50 KV
construction steel	AISI316L
UE SCHEME	2006/42/CE
SCHEME	IEC/IEEE 80005-1



# JUCTION BOX MT

INGRESS  
PROTECTION

**IP66**

**SPM**

SPECIAL  
MACHINE

**AISI  
316L**

## MARINE SAFETY

### **JBMTP JUCTION BOX MEDIUM VOLTAGE ISOLATION SYSTEM**

TYPE	JBMT CONNECTION SERIES
Protection	IP66
Max voltage operation	6,6 KV
max. Current busbars	In=680 A
Max Voltage	Vn=12KV
RATED POWER FREQ WITHSTAND VOLTAGE	20KV
construction steel	AISI316L
UE SCHEME	2006/42/CE
SCHEME	IEC/IEEE 80005-1





# STEEL INDUSTRY AND EARTHMOVING MACHINERY



# SLIP RING

INGRESS  
PROTECTION  
**IP67**



**SIL**

## SLIP RING SR135 SERIES

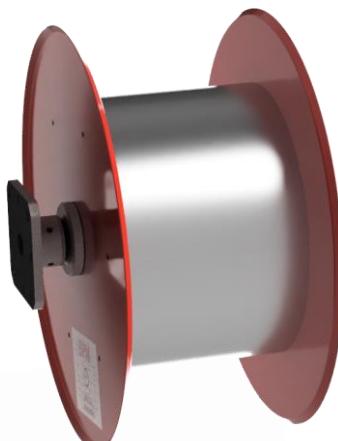


SLIP RING TYPE	SR135 SERIES
Protection	IP67
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	In=100 A
Max Voltage	Vn=1000 VCA
Number size	SR135/SR136/SR1137/SR138
UE SCHEME	2006/42/CE
PL PERFORMANCE LEVEL	ISO 13849-1 2016

# SPRING CABLE REEL



## SPRING CABLE REEL SCROX SERIES



SPRING CABLE REEL TYPE	SCR SERIES
Protection	IP65
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	In=1000 A
Max Voltage	Vn=1000V
Number size	SCR01, SCR03,SCR04
Meter max	50 m
UE SCHEME	2006/42/CE

# SPRING CABLE REEL



## SPRING CABLE REEL SCR1X SERIES

SPRING CABLE REEL TYPE	SCR SERIES
Protection	IP65
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	I <sub>n</sub> =1000 A
Max Voltage	V <sub>n</sub> =1000V
Number size	SCR12, SCR13
Meter max	50 m
UE SCHEME	2006/42/CE



# SPRING CABLE REEL



## SPRING CABLE REEL SCR-SK SERIES



SPRING CABLE REEL TYPE	SCR-SK SERIES
Protection	IP65
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	In=1000 A
Max Voltage	Vn=1000V
Number size	SCR-SK MULTISPIRAL , SCR-SK PLURISPIRAL
Meter max	100
UE SCHEME	2006/42/CE

# MOTOR CABLE REEL



## MOTOR CABLE REEL MCR SERIES



SPRING CABLE REEL TYPE	MCR SERIES
Protection	IP65
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	In=1000 A
Max Voltage	Vn=1000V
Number size	MCR A090 , MCR A112 , MCR A140
Meter max	200
UE SCHEME	2006/42/CE

# CABLE TROLLEY



## CABLE TROLLEY CT100 SERIES



CABLE TROLLEY TYPE	CT100 SERIE
STRUCTURE	STEEL WITH SPECIAL GALVANIC TREATMENT
WEELS	STEEL WITH SPECIAL GALVANIC TREATMENT
STATIC ELECTRICITY	Grounding system
UE SCHEME	2006/34CE



## MINING AND DRILLING

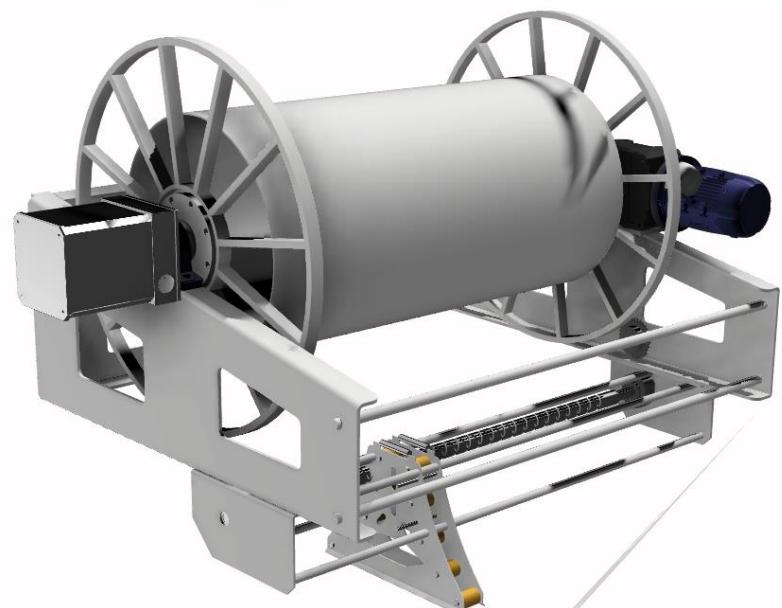
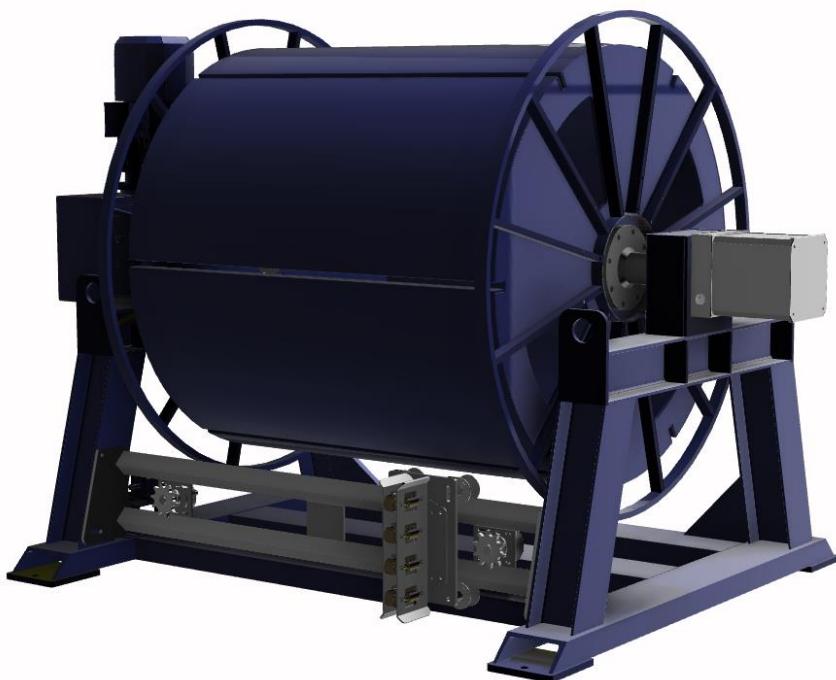


# SPECIAL MOTOR CABLE REEL

INGRESS  
PROTECTION  
**IP65**



## MACR MINE & EHART MOVING MOTOR CABLE REEL

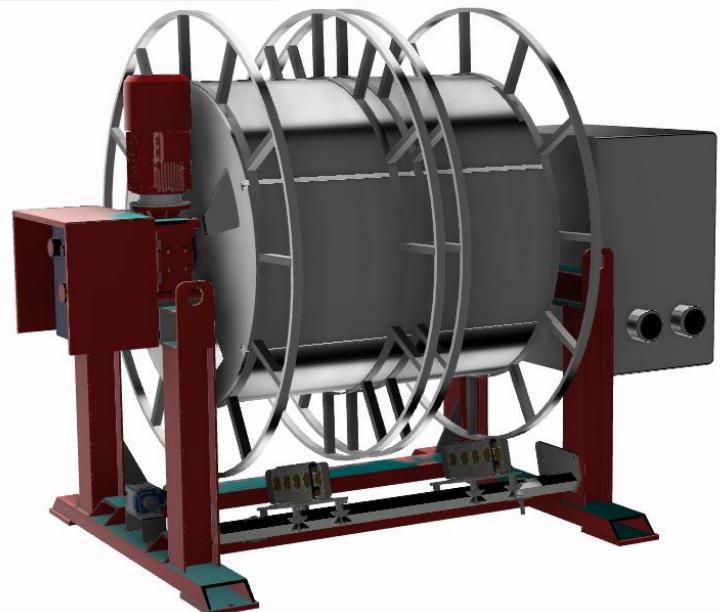
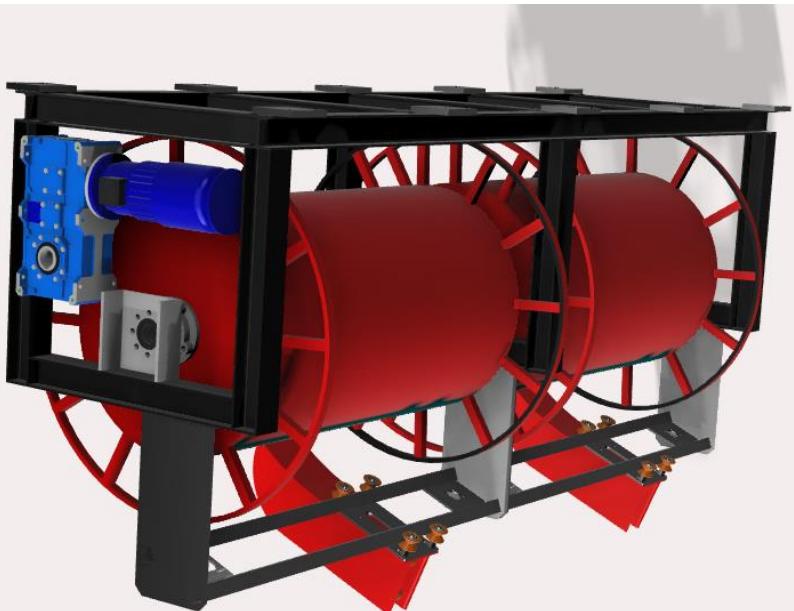


# SPECIAL MOTOR CABLE REEL

INGRESS  
PROTECTION  
**IP65**



## MACR MINE & EHART MOVING MOTOR CABLE REEL



# HYDRAULIC CABLE REEL



AISI  
316L

## MHCR MOBILE STATION AUTOMATIC MOTOR HYDRAULIC CABLE REEL VERTICAL APPLICATION

SPRING CABLE REEL TYPE	MHCR SERIES
Protection	IP66
TYPE OF RING	POWER ,AUXILIAR , SIGNAL
max. Current	In=300 A
Max Voltage	Vn=1000KV
Number size	MHCR
Meter max	60 mt
UE SCHEME	2006/42/CE





# INDUSTRIAL AND AUTOMATION



# SLIP RING

CAN

PROFO<sup>®</sup>  
PROCESS FIELD BUS  
BUS

PROFI<sup>®</sup>  
INDUSTRIAL ETHERNET  
NET

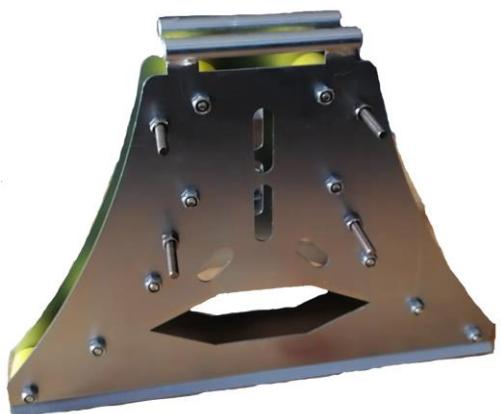
## SLIP RING ANALOGIC AND DIGITAL SIGNAL SRDH SERIES



# ACCESSORIES



## ACCESSORIES SPRING AND MOTOR CABLE REEL

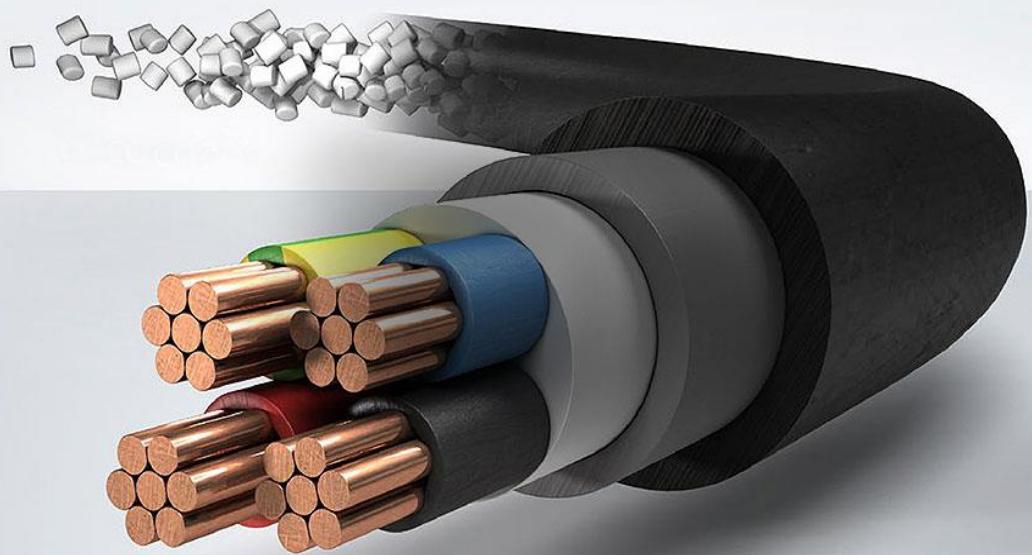


- BIDIRECTIONAL CABLE GUIDE
- CABLE FEED POINTCABLE
- CABLE SOCKS
- SPRING
- CABLE GUIDE
- ROLLER CABLE REEL

# SPECIAL CABLE



**EXTREME KABEL**



## CABLE DESIGN:

- HYBRIDS: POWER, AUXILIARIES AND SIGNALS
- SPECIAL FOR MOBILE INSTALLATION FOR HARD ENVIRONMENTS



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