
COMPANY INTRODUCTION

DSR Group

D | S | R



SINCE 1965



D | S | R **DSR CORP**

- 1. Fiber Division – Rope & Webbing
- 2. Stainless Division – Rope & Wire

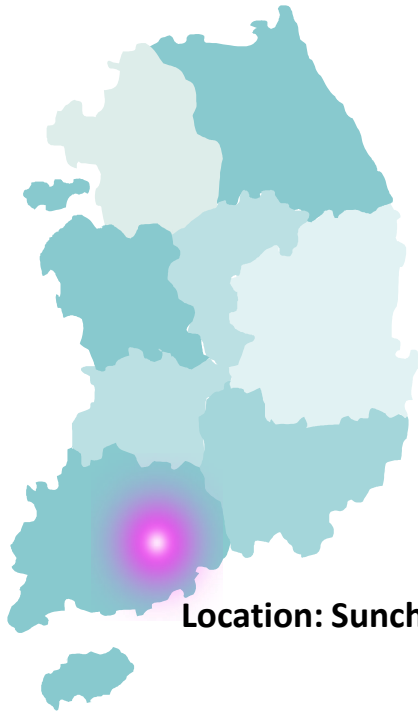


D | S | R **DSR WIRE CORP**

- 1. High Carbon Wire Rope Division – Including Offshore wire Rope
- 2. High Carbon Wire Division – Hard Drawn Wire & Music Wire – Oil Tempered & Induction heated



History



Location: Suncheon City



HISTORY

- 1971. Established in name of Samhwa Wire Rope Industry Ltd
- 1981. Renamed Chunki Wire Rope Industry Ltd
- 2002. Renamed DSR Wire Corp
- 2002. Achieved ISO 9001:2000
- 2007. Production OT Wire Commenced at the Factory #2
- 2011. Yulchon Factory :
 - OT (Valve), IT & large diameter Offshore rope
- 2011. Achieved ISO / TS 16949
- 2015. Achieved ISO 14001 & OSHAS 18001
- 2017. Won the World Class Product of Korea with Power Rope series (by Ministry of Trade, Industry and Energy)
- 2017. DSR VINA Factory :
 - Steel Wire rope & Synthetic rope

History

COMPANY PROFILE



KOSPI STOCK LISTED (2003)

- Since first 70's steady growing in rope and wire division
Foundation of second Factory (2002) & Yulchun Factory(2011)
- Turnover in 2018 : Approx. US \$400 million
- Approx. 1,000 well trained & professional employees
- Maintaining perfect quality system
- Active worldwide
- Main application

Wire: Stainless & Oil Tempered Wire for Spring application

Wire rope: Crane, Offshore and General lifting & sling etc

Fiber rope: Mooring, Offshore and Heavy lifting & sling etc

Worldwide Locations

Global Offices

- US Office (New York, US)
- Europe Office (Düsseldorf, Germany)
- Japan Office (Osaka, Japan)
- Seoul Office (Seoul, Korea)

Factories

- Suncheon Factory 1 (Korea) - High Carbon Steel Wire Rope
- Suncheon Factory 2 (Korea) - Hard Drawn Wire & Music Wire
- Yulchon Factory (Korea) - Offshore Wire Rope & OT, IT Wire
- Gwangyang Factory (Korea) - Stainless Wire Rope & Stainless Wire
- Busan Factory (Korea) - Synthetic Rope
- Qingdao Factory (China) - Synthetic & High Carbon Steel Wire Rope
- Ho Chi Minh Factory (Vietnam) - Synthetic & High Carbon Steel Wire Rope

Factories in Korea



FACTORY #1: WIRE ROPE



위 순천 제1공장, 아래 : 순천 제2공장



YULCHON FACTORY: OFFSHORE WIRE ROPE, OT/IT WIRE

Factories in overseas

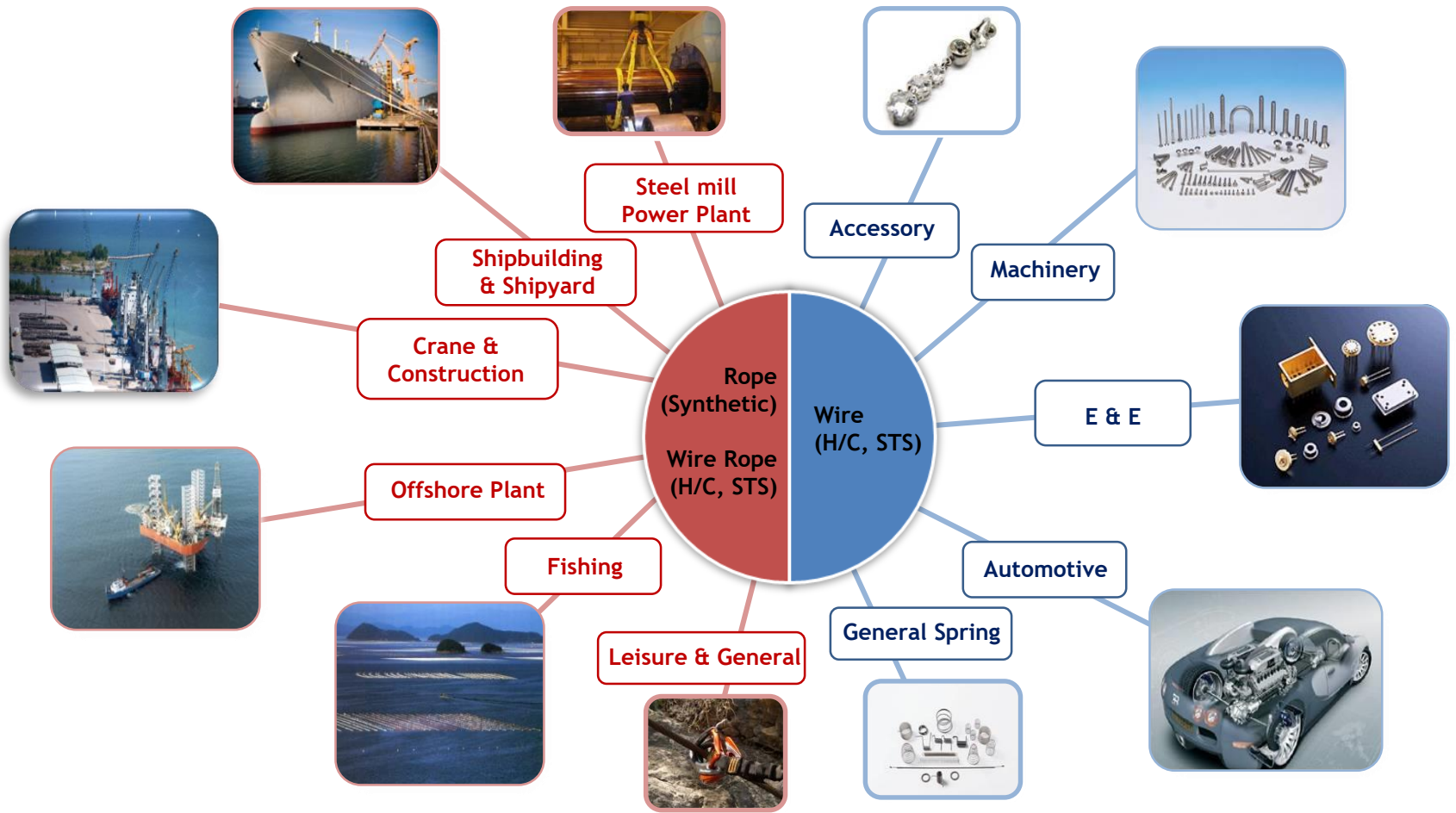
QINGDAO FACTORY (CHINA) : WIRE ROPE & SYNTHETIC ROPE



HO CHI MINH FACTORY (VIETNAM) : WIRE ROPE & SYNTHETIC ROPE



Key Markets



PROJECT EXPERIENCE

Project Experiences

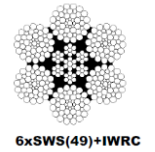
For Anchor Mooring

Customer	Shipyard / Oil Field	Hull No.	Ship owner	Vessel name	Vessel type	Class	DIA.	Length	Q'ty	DSR Job No.	Year	Note
COSCO Qidong	Cosco (Qidong)	N/A	DEME	Orion	Crane Barge for OWF	DNV	76mm	2000 m	8 lgths	OC3011	2018	Anchor Wire for New Building
COSL	DSIC / CIMC Raffles	N/A	COSL	Haiyang Shiya982	MODU(Semi-Submersible)	DNV	90mm©	750 m	6 lgths	OC1059	2018	Anchor Wire for New Building
COSL	Wire Replacement	N/A	COSL	NH8	MODU(Semi-Submersible)	DNV	90 mm	2286 m	2 lgths	NC1460	2017	Anchor Wire for replacement
COSL Norway	N/A	N/A	COSL Norway	COSL Inovator	MODU	DNV	90mm	600m	9 lgths	NC3047	2017	Anchor Wire Replacement
ONGC	N/A	N/A	N/A	N/A	MODU	ABS	76mm	2400m	5 coil	MC1849	2016	Anchor mooring wire
Diamond Offshore	N/A	N/A	Diamond Offshore	Ocean Apex	MODU	ABS	3-3/4"	10800ft	1 lgths	MC4103	2016	Anchor mooring wire
Franklin Offshore	COSCO (Guangdong)	EDrill-2	Energy Drilling	EDrill-2	Tender Assist Rig	ABS	64 mm	1500 m	8 lgths	KC1301	2014	Anchor Wire for New Building
COSL	YOU LIAN SHIPYARD	NH-9	COSL	NH-9	MODU(Semi-Submersible)	ABS	90 mm	7500 ft	1 lgths	JC1590	2013	Anchor Wire Replacement
COSL	YOU LIAN SHIPYARD	NH-8	COSL	NH-8	MODU(Semi-Submersible)	ABS	90 mm	7500 ft	4 lgths	IC1539	2012	Anchor Wire Replacement



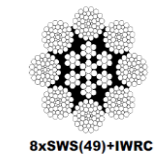
6 Strands Class / 2" ~ 5"

6x36, 6x41, 6x43, 6x49, 6x52, 6x55
Maximum Reel Weight: 130 tons



8 Strands Class / 2-3/8" ~ 6"

8x36, 8x41, 8x43, 8x49, 8x52, 8x55
Maximum Reel Weight: 150 tons



Project Experiences



Project Experiences



Project Experiences

For Towing/Winch Wires

Customer	Shipyard / Oil Field	Hull No.	Ship owner	Vessel name	Vessel type	Class	DIA.	Length	Q'ty	DSR Job N.	Year	Note
ALP Maritime	NIIGATA SHIPYARD	81	Teekay	ALP Striker	AHTS	DNV	86 mm	2000 m	3 lgths	LC3901	2016	Towing Wire for New Building
ALP Maritime	NIIGATA SHIPYARD	82	Teekay	ALP Defender	AHTS	DNV	86 mm	2000 m	3 lgths	LC3902	2016	Towing Wire for New Building
ALP Maritime	NIIGATA SHIPYARD	83	Teekay	ALP Sweeper	AHTS	DNV	86 mm	2000 m	3 lgths	LC3903	2016	Towing Wire for New Building
ALP Maritime	NIIGATA SHIPYARD	84	Teekay	ALP Keeper	AHTS	DNV	86 mm	2000 m	3 lgths	LC3904	2016	Towing Wire for New Building
Allsea	DSME	3401	Allsea	Pioneering Spirit	Heavy Lift Vessel	LR	89 mm	2000 m	1 lgths	LR1036	2013	Winch Wire for New Building
Allsea	DSME	3401	Allsea	Pioneering Spirit	Heavy Lift Vessel	LR	77 mm	1500 m	1 lgths	LR1036	2013	Winch Wire for New Building



Project Experiences

- ▶ **Offshore Heavy Lifting Sling –Saipem (2017)**
- EJINA Project
- MBL 4,950 Ton X Length 6M

MBL 4,950 Ton



SuperMax[®] Rope 

Project Experiences

► **Offshore Heavy Lifting Sling –Saipem (2017)**
- EJINA Project



PICTURE – ITEM 5 CGBL 2,577 Ton X 8M



OFFSHORE & FLOATING CRANE

Sales References



2016



Ocean Apec Rig, AUSTRALIA

<p>Cross Section of Wire Rope</p>	
<p>Construction</p>	<p>G7 x SWS(49) + IWRC</p>
<p>Diameter</p>	<p>95.3mm</p>
<p>Length x Quantity</p>	<p>3,294 m x 1Reel</p>
<p>Weight</p>	<p>131,430 kgs</p>
<p>MBL</p>	<p>783.4 Metric tons</p>
<p>Class</p>	<p>ABS</p>

Sales References

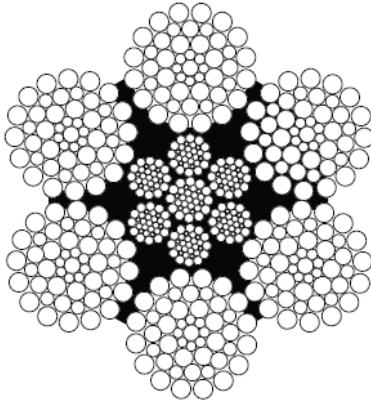


2018



Ocean Apec Rig, AUSTRALIA

Cross Section of Wire Rope



Construction	G6 x SES(52) + IWRC
Diameter	95.3mm
Length x Quantity	2,684 m x 8Reel
Weight	835,260 kgs
MBL	784.7 Metric tons
Class	ABS

Sales References



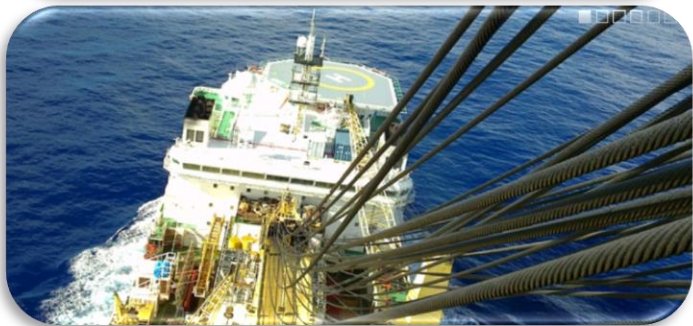
2018



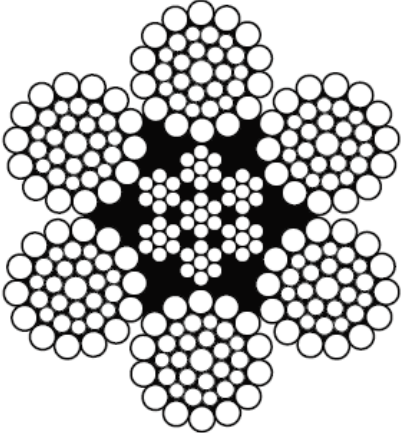
Ocean Apec Rig, AUSTRALIA

<p>Cross Section of Wire Rope</p>	
<p>Construction</p>	<p>G6 x SES(52) + IWRC</p>
<p>Diameter</p>	<p>88.9mm</p>
<p>Length x Quantity</p>	<p>1,525 m x 8Reel</p>
<p>Weight</p>	<p>413,580 kgs</p>
<p>MBL</p>	<p>713.1 Metric tons</p>
<p>Class</p>	<p>ABS</p>

Sales References



SINGAPORE

<p>Cross Section of Wire Rope</p>	
<p>Construction</p>	<p>G6 x WS(36) + IWRC</p>
<p>Diameter</p>	<p>58mm</p>
<p>Length x Quantity</p>	<p>1,500 m x 2Reel 2,000 m x 2Reel</p>
<p>Weight</p>	<p>98,000 kgs</p>
<p>MBL</p>	<p>253.9 Metric tons</p>
<p>Class</p>	<p>ABS</p>

Sales References



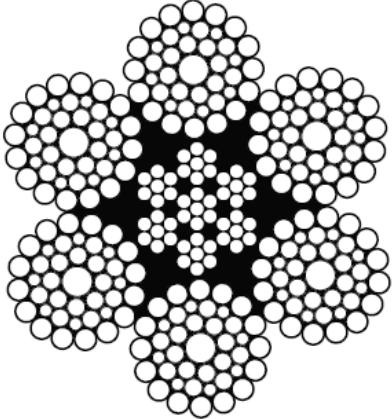
U.A.E

<p>Cross Section of Wire Rope</p>	
<p>Construction</p>	<p>G6 x WS(36) + IWRC</p>
<p>Diameter</p>	<p>76.0mm</p>
<p>Length x Quantity</p>	<p>2,800 m x 4Reel</p>
<p>Weight</p>	<p>269,920 kgs</p>
<p>MBL</p>	<p>425.0 Metric tons</p>
<p>Class</p>	<p>ABS</p>

Sales References



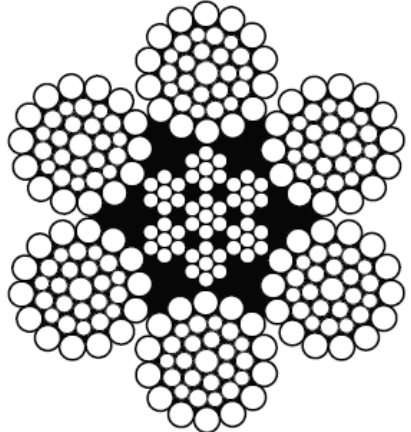
NETHERLANDS

<p style="text-align: center;">Cross Section of Wire Rope</p>	
<p style="text-align: center;">Construction</p>	<p style="text-align: center;">G6 x WS(41) + IWRC</p>
<p style="text-align: center;">Diameter</p>	<p style="text-align: center;">79.4mm</p>
<p style="text-align: center;">Length x Quantity</p>	<p style="text-align: center;">2,500 m x 3Reel</p>
<p style="text-align: center;">Weight</p>	<p style="text-align: center;">198,750 kgs</p>
<p style="text-align: center;">MBL</p>	<p style="text-align: center;">480.0 Metric tons</p>
<p style="text-align: center;">Class</p>	<p style="text-align: center;">LLOYD</p>

Sales References



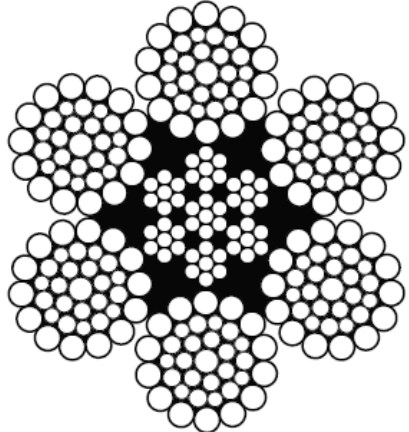
INDIA

<p>Cross Section of Wire Rope</p>	
<p>Construction</p>	<p>G6 x WS(36) + IWRC</p>
<p>Diameter</p>	<p>77.0mm</p>
<p>Length x Quantity</p>	<p>2,400 m x 5Reel</p>
<p>Weight</p>	<p>296,400 kgs</p>
<p>MBL</p>	<p>434.0 Metric tons</p>
<p>Class</p>	<p>ABS</p>

Sales References



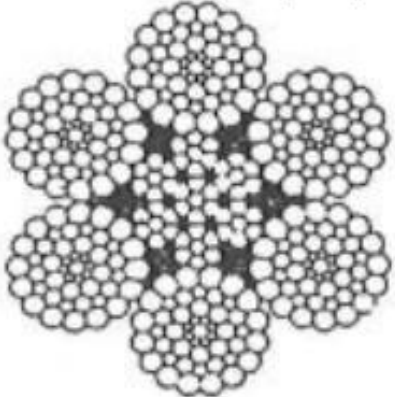
KOREA

<p>Cross Section of Wire Rope</p>	
<p>Construction</p>	<p>G6 x WS(36) + IWRC</p>
<p>Diameter</p>	<p>56.0mm</p>
<p>Length x Quantity</p>	<p>3,600 m x 1Reel</p>
<p>Weight</p>	<p>47,160 kgs</p>
<p>MBL</p>	<p>238.7 Metric tons</p>
<p>Class</p>	<p>-</p>

Sales References



NETHERLANDS

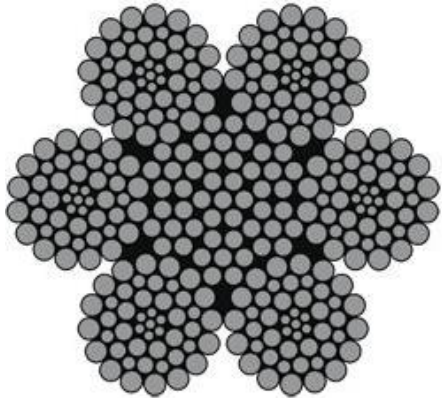
<p>Cross Section of Wire Rope</p>	
<p>Construction</p>	<p>G6 x SWS(49) + IWRC</p>
<p>Diameter</p>	<p>86.0mm</p>
<p>Length x Quantity</p>	<p>2,000 m x 8Reel 1,200 m x 4Reel</p>
<p>Weight</p>	<p>669,760 kgs</p>
<p>MBL</p>	<p>665.0 Metric tons</p>
<p>Class</p>	<p>DNV</p>

Sales References



CHINA

Cross Section of Wire Rope



Construction	POW G6 x SeWS(47) + IWRC
Diameter	90.0mm
Length x Quantity	750 m x 3Reel
Weight	86,175 kgs
MBL	675.0 Metric tons
Class	DNV

Sales References



CHINA

<p>Cross Section of Wire Rope</p>	
<p>Construction</p>	<p>G6 x WS(36) + IWRC</p>
<p>Diameter</p>	<p>76.0mm</p>
<p>Length x Quantity</p>	<p>2000 m x 8Reel</p>
<p>Weight</p>	<p>400,000 kgs</p>
<p>MBL</p>	<p>483.0 Metric tons</p>
<p>Class</p>	<p>DNV</p>

PRODUCTS

General Purpose

Powerlift 6 6 x 36WS + IWRC	Powerlift 6 6 x 31WS + IWRC	Powerlift 6 6 x 29FI + IWRC	Powerlift 6 6 x 26WS + IWRC	Powerlift 6 6 x 25FI + IWRC	Powerlift 6 6 x 37SES + IWRC	6 x 37 + IWRC

Fishing


Powerlift 6 6 x 31WS + IWRC	Powerlift 6 6 x 31WS + FC	Powerlift 6 6 x 24S + FC	6 x 24 + FC	Powerlift 6 6 x 19S + IWRC	Powerlift 6 6 x 19S + FC	Powerflex 6 6 x K31WS + IWRC	Powerflex 6 6 x K31WS + FC	Powerflex 6 6 x K19S + IWRC	Powerflex 6 6 x K19S + FC

Harbor Crane & Floating Crane


Powerlift 6 6 x 36WS + IWRC	Powerlift 6 6 x 31WS + IWRC	Powerlift 6 6 x 29FI + IWRC	Powerlift 6 6 x WS26 + IWRC	Powerlift 6 6 x 25FI + IWRC	Powerflex 6 6 x K36WS + IWRC	Powerflex 6 6 x K31WS + IWRC	Powerflex 6 6 x K29FI + IWRC	Powerflex 6 6 x K26WS + IWRC

Powerlift 7 7 x 36WS + IWRC	Powerlift 7 7 x 31WS + IWRC	Powerlift 7 7 x 26WS + IWRC	Powerflex 7 7 x K36WS + IWRC	Powerflex 7 7 x K31WS + IWRC	Powerflex 7 7 x K26WS + IWRC


Special Options For Better Lifetime



FIL
Special fiber injection



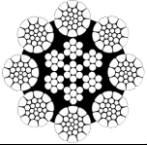
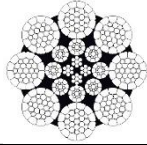
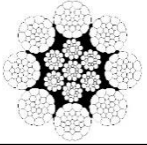
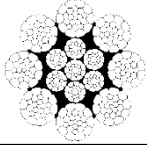
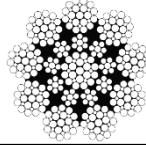
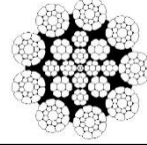
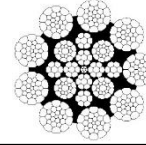
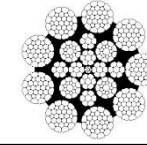
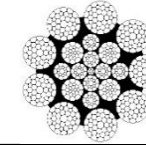
TEC
Special Plastic injection



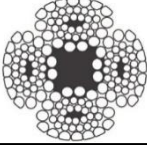
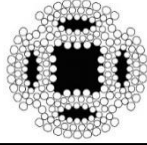
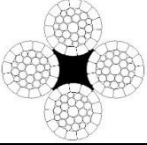
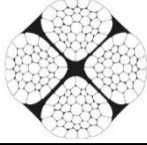
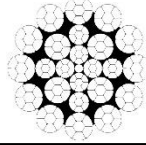
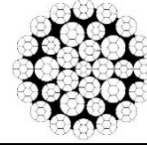
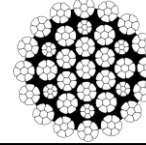
HYBRID
Hybrid core

Powerlift 8 8 x 31WS + IWRC	Powerlift 8 8 x 26WS + IWRC	Powerflex 8 8 x K36WS + IWRC	Powerflex 8 8 x K31WS + IWRC	Powerflex 8 8 x K26WS + IWRC	Powerflex 8 8 x K26WS + KIWRC	Powerflex 8 8 x K26WS + IWRC	Powerflex 8 8 x K26WS + KIWRC	Poweract 17DS 8 x K26WS + EPKIWRC	Poweract 17DF 8 x K26WS + IWRC

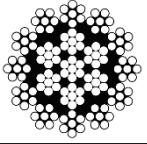
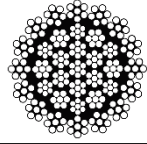
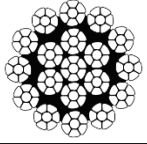
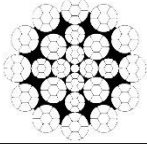
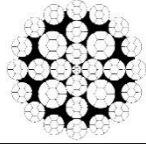
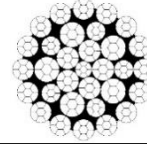
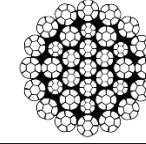
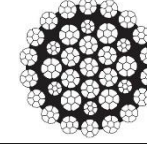
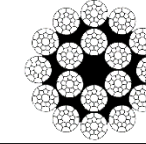
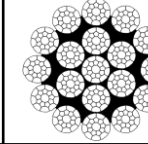
Overhead Crane

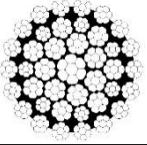
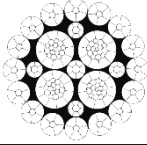
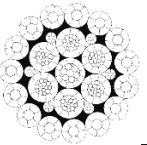
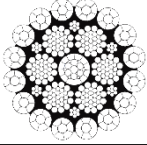
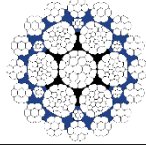
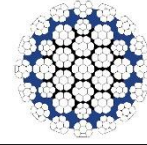
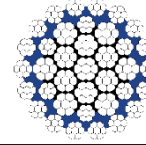
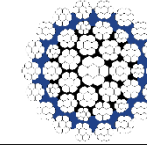
								
Powerflex 8 8 x K26WS + IWRC	Powerflex 8 8 x K26WS +KIWRC	Powerflex 8 8 x K26WS + IWRC	Powerflex 8 8 x K26WS + KIWRC	Poweract 19 9 x 25FI + IWRC	Poweract 22 9 x K19S + IWSC	Poweract 22 9 x K26WS + IWSC	Poweract 22 9 x K31WS + IWSC	Poweract 22 9 x K36WS + IWSC

Deck Crane

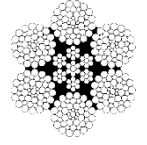
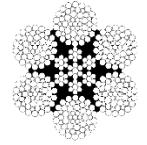
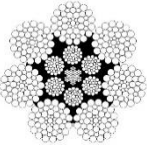
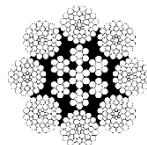
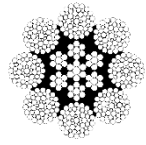
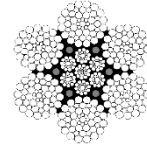
						
SAS 4 x 39SES + FC	SAS 4 x 48SES + FC	Powerflex 4 x K36WS + FC	Poweract 4	Poweract 24 24(W) x K7	Poweract 32 32(W) x K7	Powerflex 35 35(W) x K7

Tower Crane & Crawler Crane - Rotation Resistant

									
Powerlift 19 x 7	Powerlift 35 x 7	Powerflex 19 x K7	Poweract 24 24(W) x K7	Poweract 29W 29(W) x K7	Poweract 32 32(W) x K7	Powerflex 35 35 x K7	Powerflex 37 37 x K7	Powerflex M18 18 x K19S + FC	Powerflex M19 19 x K19S

							
Powerflex 40 40 x K7	Poweract 25D	Poweract 28D	Poweract 29D	Poweract S29DP	Powertec 35S 35 x K7(S)	Powertec 37 37 x K7	Powertec S40 40 x K7(S)

Offshore

					
Powermax 6 x 49SWS + IWRC	Powermax 6 x 55SWS + IWRC	Powermax 7 x 49SWS + IWRC	Powermax 8 x 49SWS + IWRC	Powermax 8 x 55SWS + IWRC	Powermax Anode Wire Rope

POWERMAX

Offshore wire ropes: POWERMAX

WINCH LINE

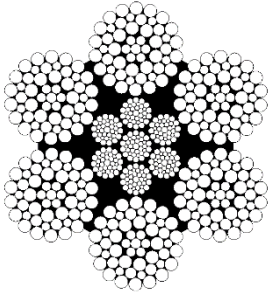
ANCHOR LINE

MOORING LINE

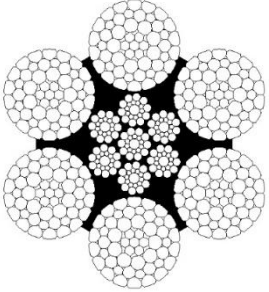
DRILLING LINE

CRANE

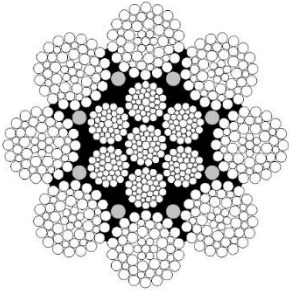
► Major Wire Ropes



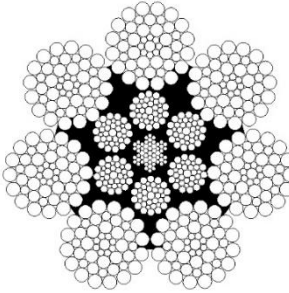
6xSeWS(52)+IWRC



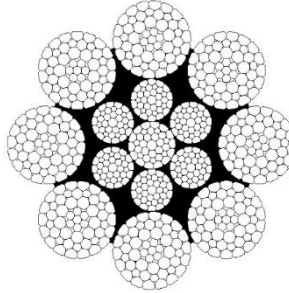
POW6XSeWS(52)+7XS(19)



Anod 8xSeWS(52)+IWRC



7xSWS(49)+IWRC



POW8xSeWS(52)+IWRC

Offshore wire ropes: POWERMAX

POWERMAX Rope delivers higher breaking strength and longer life.

Nominal Dia.		Offshore Powerlift 6, Powerlift 8 (Metric Ton)					Approx Weight 6×ROPE	Approx Weight 8×ROPE	Offshore Powerflex 6, Powerflex 8 (Metric Ton)					Approx Weight 6×ROPE	Approx Weight 8×ROPE
mm	inch	EIPS	EEIPS	Z GRADE	ZZGRADE	ZZZ GRADE	Kg/m	Kg/m	EIPS	EEIPS	Z GRADE	ZZGRADE	ZZZ GRADE	Kg/m	Kg/m
50.8	2	180	197	226	234	244	11.3	11.4	199	218	246	259	270	12.1	12.2
52.0		189	206	236	245	258	11.8	11.9	201	220	252	271	283	12.7	12.8
54.0	2-1/8	200	221	243	255	264	12.8	12.9	224	245	269	281	284	13.7	13.8
56.0		215	238	262	274	284	13.7	13.8	241	264	290	326	306	14.7	14.9
57.2	2-1/4	224	247	278	290	302	14.3	14.4	250	275	306	323	326	15.3	15.5
58.0		230	254	285	299	311	14.7	14.8	257	283	315	333	336	15.8	15.9
60.3	2-3/8	249	274	300	315	337	15.9	16.0	281	307	340	349	363	17.1	17.2
63.5	2-1/2	274	301	337	355	369	17.7	17.8	304	336	375	394	398	18.9	19.1
66.7	2-5/8	299	330	371	390	407	19.5	19.6	333	367	413	435	439	20.9	21.1
69.9	2-3/4	333	360	411	430	448	21.4	21.5	364	401	452	475	484	22.9	23.1
71.0		343	372	424	444	463	22.1	22.2	376	414	467	491	500	23.7	23.9
73.0	2-7/8	361	392	449	470	490	23.4	23.5	392	435	497	520	529	25.0	25.3

Offshore wire ropes: POWERMAX

Heat Treatment

Heat Treatment

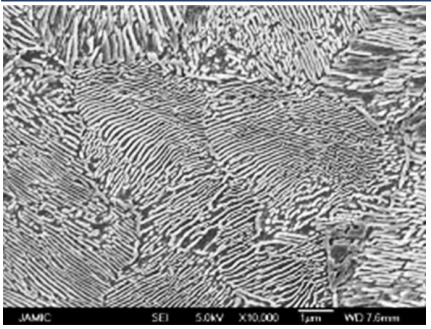
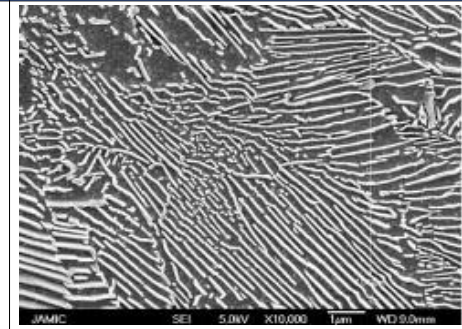
With the latest heat treatment line from Europe

POWERMAX Rope for oil and gas industry consists of wires with the finest microstructure.

Microstructure

Wires with finest microstructure carries excellent performance in any given conditions.

Microstructure Comparison

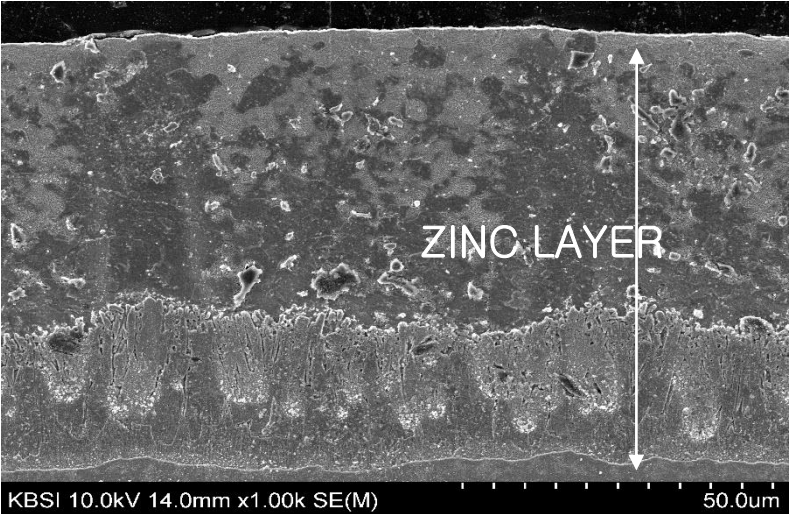
Fine Pearlite	Coarse Pearlite
	
0.167um	0.28um

SEM Image of Microstructure(x10,000)

Offshore wire ropes: POWERMAX

Galvanizing

Uniformity of the Zinc Layer



Content	Advantage
Automatic Control of Temperature	Precise zinc temperature stability
	Good adherence of zinc coating

The wires of **POWERMAX** Rope are drawn from intermediate wires with the finest microstructure and zinc layer through the world's highest quality furnace line. Wire without delamination from our furnace enables us to produce up to ZZZ grade wire rope.

Offshore wire ropes: POWERMAX

Drawing

Every wire of **POWERMAX** Rope is drawn through the most modern drawing equipment in order to carry high tensile strength as well as excellent ductility.

Stranding

Every strand of **POWERMAX** Rope is produced through the most modern stranding equipment from Europe.

Eliminating vibration during high speed operation enables us to make tight lay as well as outstanding construction and highest flexibility.

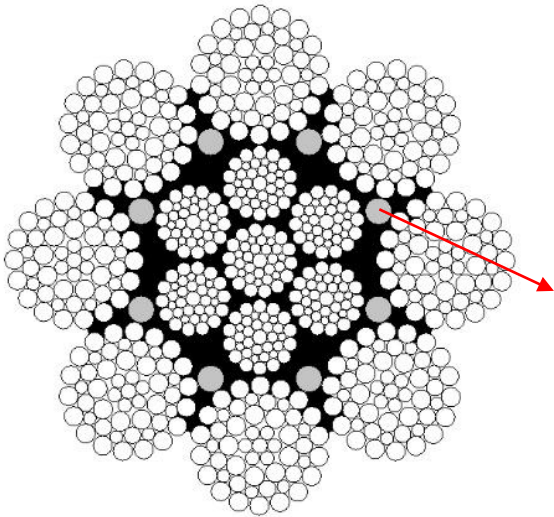
Closing

Every **POWERMAX** Rope is produced through the most modern closer equipment from Europe.

This equipment provides the most appropriate stranding tension automatically as well as insuring balance between take up and closer.

Offshore wire ropes: POWERMAX

Extreme Corrosion Resistance



Sacrificial Anode

Sacrificial anodes are easily corroded materials deliberately installed to be sacrificed to corrosion, leaving the rest of the material relatively corrosion free.

Zn wire

It is a product that maximizes corrosion resistance by inserting zinc wire into the space of wire rope.

India Public Enterprise
using DSR Anode wire rope ▶



Thank you.

DSR is always with you anytime and anywhere.