PT. ISPAT INDO

WIRE RODS AND DEFORMED BARS

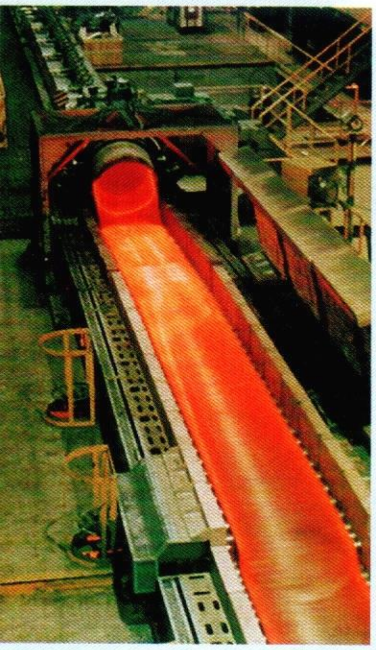
PRODUCTS

SIZE RANGE

- Wire rod coils : 4.7 mm to 16 mm dia.
- Deformed bars in coil : 6 mm to 16 mm dia.
- Coil Weight : Approx 1800 Kg or 3 coils of each 550 Kg bundled together to weight approx 1650 Kg.
- Coil Dimension : ID : 850 mm; OD : 1250 mm.

FINAL APPLICATIONS

- Industrial quality wire rods : Fine wire, galvanized wire, nails, mesh, cable armouring tape, telephone wire, concrete reinforcing bars.
- Medium high carbon wire rods : Tire bead wire, wire ropes, upholstery springs, umbrella ribs, spoke wires, concrete nails, ACSR wire, PC wire.
- Low carbon electrode grades : Stick welding electrodes of low carbon - low silicon variety.
- CO2 welding grades : Metal inert gas welding copper coated wires.
- Deformed bars : Concrete reinforcement.
- CHQ : Low tensile fasteners - Nuts, bolts, self tapping screws, Studs, Rivets, etc.



INDUSTRIAL PROCESS

FACILITIES

Electric Arc Furnace / Ladle Metallurgy / Billet Caster with EMS

Wire rod mill A :

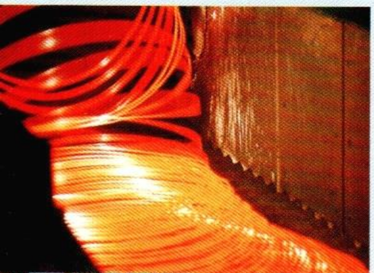
- Walking hearth furnace.
- Horizontal vertical ESS stands.
- 100 m/s no twist 10 stand block mill.
- 106 mtr long control cooling conveyor with high capacity air blowers (stelmore type).
- Insulating Hoods for retarded cooling.
- Coil weight : 1.8 MT.

Wire rod mill B :

- Pusher type furnace.
- Cross country mill.
- 8 stand No twist block - 65 m/s.
- Control cooling conveyor.
- Coil weight : 0.550 MT.

STRENGTHS

- Largest wire rod producer in Indonesia with highest market share.
- Shortest delivery period with highly flexible product mix at the most competitive price in South East / Far East Asian markets.
- ISO 9001 : 2008 Certification for Quality Assurance system.
- JIS Certification for products such as low carbon, high carbon and electrode grade wire rods.
- ISO 14001 2004 : certification for environmental management system.
- OHSAS 18001: 2007 Certification and SMK 3 certification for safety and health management system.
- Accredited ISO/IEC 17025:2005 by KAN Indonesia (Komite Akreditasi Nasional).



CERTIFICATION

- JIS - Japan
- SNI - Indonesia
- SIRIM - Malaysia

CONTACT DETAILS

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PRODUCT SPECIFICATIONS

1. LOW CARBON STEEL WIRE RODS

Grade Equivalent	% C	%Mn	% P Max	% S Max	% Si	UTS (Max) N/mm²	Elong Min %	Typical End Use
JIS G 3505 OR SAE / AISI								
1005	0.06 max	0.35 max	0.040	0.040	0.10 max	400	35	Fine wire drawing
SWRM 6/1006	0.08 max	0.45 max	0.040	0.040	0.15 max	420	30	Binding wire, Annealed wire,
SWRM 8/1008	0.10 max	0.55 max	0.040	0.040	0.15 max	440	25	Telegraph wire ,Nails,
SWRM 10/1010	0.08/0.13	0.30/0.60	0.040	0.040	0.15 max	460	23	Galvanized wire, Barbed wire,
SWRM 12/1012	0.10/0.15	0.30/0.60	0.040	0.040	0.15 max	510	22	Nail wire,Staple Wire,Wire mesh
SWRM 15/1015	0.13/0.18	0.30/0.60	0.040	0.040	0.20 max	520	21	Rivet wire
SWRM 17/1017	0.15/0.20	0.30/0.60	0.040	0.040	0.20 max	530	21	
SWRM 22/1022	0.20/0.25	0.30/0.60	0.040	0.040	0.20 max	600	20	Concrete Reinforcement
Commercial 1020	0.30 max	1.50 max	0.050	0.050	1.00 max			Miscellaneous

2. HIGH CARBON WIRE RODS

Grade	% C	% Mn	% P Max	% S Max	% Si	Typical UTS (5.5 mm dia) N/mm²	Elong % Approx	Typical end use
SWRH 27	0.24/0.31	0.38/0.60	0.030	0.030	0.15/0.30	565/695	16	Low Carbon PC Wire
SWRH 32	0.29/0.36	0.38/0.60	0.030	0.030	0.15/0.30	600/715	15	
SWRH 37	0.34/0.41	0.38/0.60	0.030	0.030	0.15/0.30	620/745	15	Concrete nail
SWRH 42A	0.39/0.46	0.38/0.60	0.030	0.030	0.15/0.30	665/775	14	Wire for umbrella
SWRH 42B	0.39/0.46	0.60/0.82	0.030	0.030	0.15/0.30	685/815	14	rib, Cycle spoke,
SWRH 47A	0.44/0.51	0.38/0.60	0.030	0.030	0.15/0.30	735/855	13	Motor cycle spoke.
SWRH 47B	0.44/0.51	0.60/0.82	0.030	0.030	0.15/0.30	755/875	13	
SWRH 52A	0.49/0.56	0.38/0.60	0.030	0.030	0.15/0.30	825/945	13	
SWRH 52B	0.49/0.56	0.60/0.82	0.030	0.030	0.15/0.30	845/965	13	
SWRH 57A	0.54/0.61	0.38/0.60	0.030	0.030	0.15/0.30	860/970	12	Crimping wire for
SWRH 57B	0.54/0.61	0.60/0.82	0.030	0.030	0.15/0.30	880/980	12	bed spring.
SWRH 62A	0.59/0.66	0.38/0.60	0.030	0.030	0.15/0.30	920/1040	11	Spring wire,rope
SWRH 62B	0.59/0.66	0.60/0.82	0.030	0.030	0.15/0.30	950/1070	11	wire, ACSR wire,
SWRH 67A	0.64/0.71	0.38/0.60	0.030	0.030	0.15/0.30	960/1080	10	
SWRH 67B	0.64/0.71	0.60/0.82	0.030	0.030	0.15/0.30	970/1090	10	
SWRH 72A	0.69/0.76	0.38/0.60	0.030	0.030	0.15/0.30	1030/1150	9	
SWRH 72B	0.69/0.76	0.60/0.82	0.030	0.030	0.15/0.30	1050/1170	9	Tyre-bead wire,
SWRH 77A	0.74/0.81	0.38/0.60	0.030	0.030	0.15/0.30	1090/1210	9	spring wire, ropes
SWRH 77B	0.74/0.81	0.60/0.82	0.030	0.030	0.15/0.30	1120/1250	8	PC wire
SWRH 82A	0.79/0.86	0.38/0.60	0.030	0.030	0.15/0.30	1140/1270	8	PC stand, etc
SWRH 82B	0.79/0.86	0.60/0.82	0.030	0.030	0.15/0.30	1170/1290	8	

3.WELDING ELECTRODE GRADE
3.1 Core Wire For Mild Steel Electrodes

Grade **JIS G 3503**	% C Max	%Mn	% P Max	% S Max	% Si Max	% CU Max	UTS (Max) N/mm²	RA Min%	Typical End Use
SWRY 11	0.09	0.35/0.65	0.020	0.023	0.03	0.20	430	45	Stick electrodes

3.2 CO2 GAS WELDING ROD FOR MIG/TIG WIRE

Grade Equivalent to	% C	% Mn	% P Max	% S Max	% Si Max	% CU Max	UTS (N/mm 2)	RA Min %
ER-70-S4	0.04/0.10	1.00/1.35	0.025	0.025	0.50/0.70	0.10	520	80
ER-70-S6 (SG2)	0.07/0.12	1.40/1.60	0.025	0.025	0.80/1.00	0.13	695 max	65
EM 12K (S2Si)	0.06/0.12	0.80/1.20	0.025	0.025	0.05/0.35	0.15	600	45

The wire rods are retarded cooled under insulated hoods on a conveyor 106mtr long running at a speed of 0.15m/s. The mechanical and metallurgical properties are amenable to good drawability. The chemical specifications can be adjusted on mutual agreement for special requirements.
Other related grades for SAW welding such as EM 12L, EH 14 etc can also be supplied as per customer specifications.

4. WIRE ROD FOR COLD HEADING APPLICATIONS

Grade Equivalent to	% C	% Mn	% P Max	% S Max	% Si Max	% AL Min	Typical End Use
SWRCH 6R	0.08 max	0.60 max	0.040	0.040			
SWRCH 8A	0.10 max	0.60 max	0.040	0.040	0.10	0.02	Fasteners
SWRCH 18A	0.15/0.20	0.60/0.90	0.030	0.030	0.10	0.02	

5. DEFORMED BARS IN COIL FOR CONCRETE REINFORCEMENT

Sizes (in mm) : 6, 8, 10, 13, 16

Grade	% C	% Mn	% P Max	% S Max	% Si Max	C+(Mn/6) %	UTS N/mm²	Yield Strength N/mm²
JIS G 3112/ASTM/ACRS/SIRIM/BIS								
SD 295 A			0.050	0.050			440/600	295 min
SD 295 B	0.27 max	1.50 max	0.040	0.040	0.55		440 min	295 to 390
SD 345	0.27 max	1.60 max	0.040	0.040	0.55	0.50 max	490 min	345 to 440
SD 390	0.29 max	1.80 max	0.040	0.040	0.55	0.55 max	560 min	390 to 510
SD 490	0.32 max	1.80 max	0.040	0.040	0.55	0.60 max	620 min	490 to 625
Grade 40	0.27/0.34	0.60/0.90	0.050	0.050	0.35	0.37/0.49	470 min	320 min
Grade 60	0.28/0.33	1.15/1.35	0.045	0.045	0.35	0.47/0.55	550 min	390 min

*Customize grades can also be made on request