



P.K.G. Exports Pvt. Ltd.

Since 1991

Trading, Distribution, Consulting

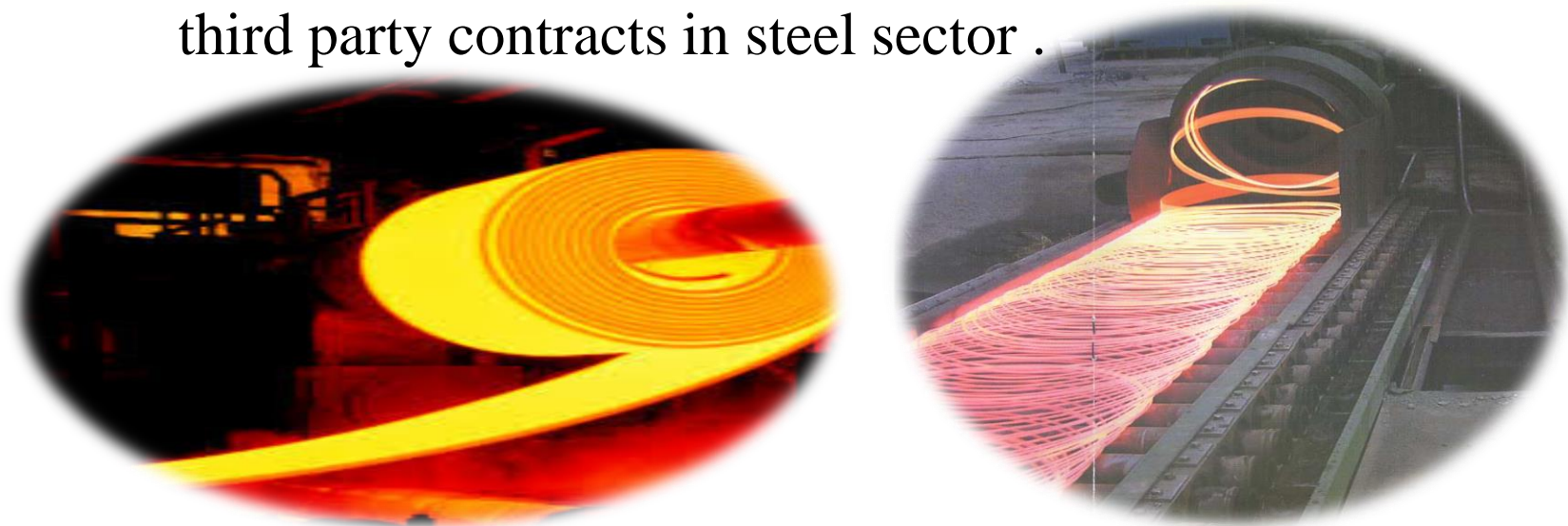


# ROLLED STEEL

PKG is involved in Manufacturing, trading and sourcing of different types of steel products .

Independent domestic trading , exports and imports of rolled long and flat steel products which are sourced from reputed Steel Mills in India and Overseas. We also represent overseas traders and mills on project and case by case basis and long term also .

PKG has more than 20 years of experience in management of third party contracts in steel sector .



# **ROLLED STEEL**

**The chief products dealt are the following:**

## **Rolled Steel Products :**

- 1. Hot Rolled Plates / Sheets and Coils CR / GP Coils and Sheets**
- 2. Electrolytic Tin Plates**
- 3. SS Coils and Sheets**

## **Long Products :**

- 1. Sections like angles, channels, beams, joists etc.**
- 2. Round Bars (Black and Bright), Deformed bars and Wire Rods**
- 3. Steel Pipes - ERW / HFIW / Seamless / Saw Quality**
- 4. Billets and Blooms**

# STEEL PRODUCTS & RAW MATERIALS



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# LISTS OF ROLLED STEEL PRODUCTS

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# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE : PKG / RO / 01

## M.S HOT ROLLED PRIME QUALITY BILLETS

SPECIFICATION : : IS 2830, 2831 ASTM A36, A615 GR 40 / 60.  
BS 4360 OR 43A, DIN 17100 GR 37.2.  
SAE 1010, 1012, 1015.  
JISG 3505-SWRM 12K, 15K, 20K  
JISG 3112 - SR 24, SR 30. JISG 3101 - SS41.

SIZES (MM) : : 60 X 60, 75 X 75, 80 X 80, 85 X 85, 91 X 91.  
100 X 100, 110 X 110, 120 X 120, 125 X 125.  
130 X 130

LENGTH (METER) : : 4, 5.5, 6, 9, 10, 12.

TOLERANCE : : + / - 100 MM

PACKING : : IN BUNDLES OF UPTO 5 MT MAX WITH  
UNIFORM PIECE COUNT PER BUNDLE



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE : : PKG / RO /02

## PRIME QUALITY WIRE RODS

SPECIFICATION : : ASTM A615 GR 40. A510. AISI / SAE C1008, 1010, 1012, 1015, 1019, 1022.  
JISG 3112 SR 24 & SR 30.  
JISG 3505 SWRM 8K, 10K, 12K ,15K.  
IN 17100 ST 37.2, DIN C22, ALL HIGH CARBON GRADES. SS GR 302.303.304.304L 316L, & 430.

SIZES (MM) : : 5.5, 6.0, 6 5, 7.0, 7.5, 8.0, 10, 12, 14, 16, 18,20, 22 & 23.

DIMENSIONS : : COIL ID : : 725, 850, 950, 1000  
COIL OD : : 900, 1100, 1150, 1250, 1300  
COIL HEIGHT : : 1100, 1200 AND 1300  
COIL WEIGHT : : 450,650,1000,1250,1500 MA (KGS)

PACKING : : STRAPPED AT 3 TO 4 EQUIOISTANT PLACES THROUGH THE EYE WITH SIGNODE STRAPS.





# P.K.G. Exports Pvt. Ltd.



PROUDCT CODE : : PKG / RO/03

PRIME QUALITY HR SHEETS & COILS

SPECIFICATION : : JISG - 3131 SPHC, JISG - 3121 SPHT -1,  
SAE 1008, 1010, DIN 17100 ST 37.2  
AISI 1010.

QUALITY : : COMM QUALITY, DRAWING, DEEP DRAWING,  
EXTRA DEEP DRAWING, HIGH STRENGTH LOW  
ALLOY QUALITY CORROSION RESISTANT  
QUALITY, TIN MILL BLACK PLATE & BOILER  
QUALITY.

THICKNESS (MM) : : 1.2, 1.5, 1.6, 1.8, 2.0, 2.2, 2.4,  
2.5, 2.8, 3.0, 3.5, 3.8, 4.0, 4.5,  
5.0, 5.5, 6.0, 6.5, 6.5, 7.0, 7.5,  
8.0, 8.5, 9.0, 9.5, 10., 10.5, 11.0,  
11.5, 12.0

LENGTH (MM) : : (FOR SHEETS ONLY) 1000, 1250,  
1500, 2000, 2500, 3000, 4000, 5000, 6300.

WIDTH (MM) : : (1350, 1400, 1500, 1750, 1800, 2000.

COIL ID (MM) : : 850

COIL OD (MM) : : UPTO 2300 MAX

COIL WEIGHT : : FROM 10 MT UPTO 28 MT MAX

PACKET WEIGHT  
FOR SHEETS

: : UPTO 8 MT MAX

EDGES

: : BOTH TRIMMED AND MILL EDGES PRODUCED.

PACKING

: : STANDARD EXPORT SEAWORTHY PACKING WITH  
GENERAL METHOD OF 4 STEEL THROUGH THE  
EYE OF THE COIL AND THREE STEEL BAND  
AROUND THE CIRCUMFERENCE.



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE : :PKG / RO /04

HOT ROLLED PLATES

**SPECIFICATION** : : IS 2062 GR ` B ` IS 2002, 3039, JISG 3101  
SS 41, JISG 3105, ASTM A 36, DIN 171000  
RST 37 .2/44 . 2, DIN 17155, BS4360 GR 43A  
BS1501, LRS GR A, B, D , E, AH 32,  
ABS GR A, BV GR A, ASTM / ASME STANDARD 515  
GR 60, 65 ,70 516 GR 60, 65, 70 & 285 GR C.

**QUALITY** : : STRUCTURAL QUALITY , BOILER AND PRESSURE  
VESSEL QUALITY. HIGH STRENGTH STRUCTURAL  
QUALITY. SHIP BUILDING QUALITY AND OTHER  
SPECIAL GRADES FOR SPECIFIC REQUIREMENTS.

**THICKNESS (MM)** : : ALL STANDARD SIZES FALLING BETWEEN 10.5 TO 100  
MM

**LENGTH (MM)** : : ALL STANDARD LENGTHS FROM 2438 UPTO 15000 MM

**WIDTH (MM)** : : ALL STANDARD WIDTHS FROM 1219 UP TO 3600 MM

**TOLERANCE** : : JISG 3193, ASTM A6 / 84C, DIN 1543, BS 4360

**INVOICING** : : THEORETICAL WEIGHT BASIS DENSITY OF 7.85 GMS/C.C

**PACKING** : : LOOSE

**EDGES** : : BOTH MILL AND CUT EDGES PRODUCES.



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE : : PKG/RO/05

## COLD ROLLED SHEETS & COILS

SPECIFICATION : : IS:513 GR \ 0 \ / D \ / DD  
JIS 3141 SPCD, SPCE, SPCEN .  
ASTM A366, A619, A620,  
DIN 1623 ST 12. ST 13. ST 14  
BS1449 CR 4, CR 3, CR 2, CR1

THICKNESS : : 0.15,0.20,0.23,0.25,0.25,0.30,0.35,0.40,  
0.45, 0.50,0.55,0.60, 0.63, 0.80,1.00,1.25,  
1.60, 2.00, 2.50.

LENGTH (MM) : : (FOR SHEETS ONLY) 1000, 1500, 2000,  
2500,3000,3600,4000.

WIDTH (MM) : : 100, 350, 600, 610, 900, 1000, 1250, 1300,  
1400, 1500, 1800.

COIL ID (MM) : : UPTO 600 MAX

COIL OD (MM) : : UPTO 2200 MAX

COIL WEIGHT : : UPTO 20MT MAX

PACKET WEIGHT  
FOR SHEETS : : UPTO 5 MT MAX

SURFACE TOFINIH : : BRIGHT, MATTE, DULL, ROUGH.

TEMPER : : FULLHARD. HALFHARD, ANNEALED, SKIN PASSED

EDGES : : BOTH MILL AND TRIMMED EDGES AVAILABLE



**PRODUCT CODE** :: PKG/R0/06

**COLD ROLLED STRIPS**

**SPECIFICATION** :: AS PER ALL MAJOR INTERNATIONALLY ACCEPTED SPECIFICATION IN  
ASTM, BS, JIS, DIN, SAE AND IS GRADE

**THICKNESS (MM)** :: FOR ALL STANDARD THICKNESS FROM 0.15 UPTO 4.00 MM

**LENGTH (MM)** :: (FOR STRIP SHEETS) MIN – 1000 MAX - 6000

**WIDTH (MM)** :: MIN – 10 MAX - 450

**I.D. (MM)** :: UPTO 490 MAX

**O.D (MM)** :: UPTO 1070 MAX

**COIL WEIGHT** :: MAX 4 TO 6 KG/MM OF STRIP WIDTH

<u>MILD STEEL QUALITY</u>	GRADE	PERCENTAGE		MAXIMUM		CR
		C	MN	S&P	SI	
ODINARY	MS – 0	0.20	0.60	0.60	--	--
DRAWING	MS – D	0.12	0.50	0.050	--	--
DEEP DRAWING	MS - DD	0.10	0.50	0.045	--	--
EXTRA DEEP DRAWING	MS - EDD	0.08	0.45	0.035	--	--
<b>MEDIUM CARBON QUALITY</b>						
C - 40	MC – 11	0.35 /	0.50/	0.040	0.15/	--
		0.45	0.80		0.30	
C - 55	MC – 12	0.50/	0.50/	0.040	0.15/	--
		0.60	0.80		0.30	

**HIGH CARBON QUALITY**

C – 70	HC -13	0.65/	0.50/	0.040	0.10/	--
		0.75	0.80		0.35	
C – 80/85	HC – 14	0.75/	0.50/	0.040	0.10/	--
		0.90	0.80		0.35	
C – 98	HC – 15	0.90/	0.50/	0.040	0.10	--
		1.5	0.80		0.35	
120 CR 35	HCLA -21	1.10/	0.30/	0.030	0.25	0.2
		1.30	0.60			0.5

**MECHANICAL PROPERTIES AND TEMPER RANGE**

TEMPER DESIGNATION	HARDNESS (VPN)	T.S (KGF/mm2)	GRADE	ANNEALED HARDNESS (VPN)	ANNEALED (KGF/mm2)
FULL HARD (FH)	185/OVER	60/OVER	MC-11	160 (MAX)	58 (MAX)
HALF HARD (HF)	137/185	45/60	MC-12	165 (MAX)	60 (MAX)
QUARTER HARD (QH)	110/137	38/45	MC-13	175 (MAX)	65 (MAX)
SKIN PASSED (SP)	110/117	28/38	MC-14	190 (MAX)	65 (MAX)
ANNEALED (A)	90/110	-----	MC -15	205 (MAX)	70 (MAX)

**NOTE : : CR STRIPS IN ALL MAJOR EQUIVALENTINTERNATIONAL SPECIFICATION AND ALSO FOR A CUSTOMERS SPECIAL SPECIFICATION CAN BE SUPPLIED.**



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE : : PKG/R0/07

CRNO COILS & SHEETS

SPECIFICATION : : AISI M - 43 M - 45, M - 47

THICKNESS (MM) : : 0.50, 0.65 BASE SHEET THICKNESS

LENGTH (MM) : : (FOR SHEETS ONLY) 2000

WIDTH (MM) : : 900, 950, 1000

COIL ID (MM) : : 510

COIL WEIGHT : : 2 TO 5 MT

STACKING FACTOR : : 95.98 %

MICRO STRUCTURE PROPERTIES : : LARGE GRAIN SIZE & EXCELLENT MAGNETIC PROPERTIES

BENDABILITY : : CONFORMS TO ASTM A-677

COATING : : AISI C-3 (ORGANIC) AND C - 4 ( INOGRANIC) INSULATION COATING

PACKING : : PAPER BACKED HOPE CLOTH OVER WHICH AIR BUBBLE SHEET THAN GALVANISED SHEET METAL PACKING. MOUNTED ON WOODEN SKIDS.



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE : : PKG/R0/08

GALVANISED CORRUGATED/PLAIN SHEETS & COILS

**SPECIFICATION** : : IS 277, ASTM A361, 525, 526 527 ,  
JISG 3302, 3316, 3362  
SPGC, SPGH, SPGR.

**THICKNESS** : : 0.15, 0.18, 0.20, 0.22, 0.25, 0.28, 0.30, 0.36,  
0.40, 0.45, 0.50, 0.55, 0.63, 0.70, 0.80, 0.90,  
1.00, 1.25, 1.50.

**LENGTH (MM)** : : PLAIN SHEETS: 850, 900, 1000  
CORRUGATED SHEETS : 740, 760, 780, 800, 885

**COIL WEIGHT (MT)** : : BETWEEN 2.5 TO 10 MT

**SHEET PACKET WEIGHT** : : BETWEEN 2 TO 8 MT

**ZINC COATING** : : 225, 250, 300, 375, 450 GM/M (NOMINAL)

**SURFACE FINISH** : : BRIGHT, DULL OR MATT, SPANGLES CAN BE REGULAR  
OR MINIMUM AS DESIRED.

**PACKING** : : SEAWORTHY METALLIC PACKING WITH BITUMINSED  
HESSAIN POLYTHENE LINER, EDGE PROTECTORS AND  
METAL BAND STRAPPING ON THE OUTSIDE AND  
FINALLY MOUNTED ON SKIDS.





# P.K.G. Exports Pvt. Ltd.



**PRODUCT CODE** : : PKG/R0/09

**MILD STEEL EQUAL ANGLES**

**SPECIFICATION** : : JISG 3101 SS41, JIS: A : 5528, DIN 17100 ST 37.2, 50, 52, 60 & 70, DIN 1016, ASTM A36, A242, A440 A94, A441, BS 4449 GR 250, BS4360 GR 40, 43, 50 & 55. LLOYDS SPECN GR A, B, C, D & E

**SIZES (MM)** : : ALL STANDARD SIZES FROM 25 X 25 UPTO 150 X 150 MM

**LENGTH (METER)** : : 6, 9, 10, 12 WITH PROVISION UPTO 24 METERS

**LENGTH TOLERANCE** : : + 100/ - 50 MM

**INVOICING** : : AS PER MUTUAL AGREEMENT FOR ACTUAL OR THEORETICAL WEIGHT

**PACKING** : : IN BUNDLES FROM 2 TO 5 MT MAX WITH UNIFORM PIECE COUNT PER BUNDLE. BUNDLES WILL BE SQUARE PACKED AND FASTENED WITH 4 TO 5 SIGNODE BANDS AT EQUIDISTANT PLACES.



# P.K.G. Exports Pvt. Ltd.



**PRODUCT CODE** : : PKG/R0/10

**MILD STEEL CHANNELS**

**SPECIFICATION** : : IS 961, IS 2062, IS3039 GR 1, DIN 17100 ST 44.2 .  
DIN 1026 , JIS 3101 SS 41, ASTM A36, GOST 380 ,  
ST 3PS, BS 4449 GR 250, BS 4360 GR 40, 43, 50 & 55.  
LLYODS GR A.

**SIZES (MM)** : : 40 X 32, 41 X 32, 75 X 40, 100 X 50, 125 X 65,  
150 X 75, 175 X 75, 180 X 90, 200 X 75, 250 X 82  
300 X 90, 400 X 100.

**LENGTH (METER)** : : 6, 9, & 12

**LENGTH TOLERANCE** : : + 100/ - 50 MM

**INVOICING** : : AS PER MUTUAL AGREEMENT FOR ACTUAL OR THEORITICAL  
WEIGHTH.

**PACKING** : : IN BUNDLES FROM 2 TO 5 MT MAX WITH UNIFORM PIECE  
COUNT PER BUNDLE WHICH WILL BE FASTENED AND  
PACKED WITH 4 TO 5 SOGNODE BANDS  
AT EQUIDISTANT PLACES.



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE : : PKG/R0/11

BEAMS/JOISTS (IPE TYPE/HE TYPE/PARALELL FLANGED TYPE)

SPECIFICATION :: DIN 17100 ST 44.2, JISG 3101 SS41, BS4360 GR 43A, BS4449 GR 250, ASTM A36, IS 226, IS 2062 GR A, IS 961, IS 3039 GR 1, GOST 915, 380, ST 3PS.

SIZES (MM) :: 100 X 55, 100 X 96, 100 X 100, 116 X 50, 116 X 100, 120 X 64, 120 X 114, 125 X 60, 125 X 70, 140 X 66, 140 X 73, 150 X 75, 150 X 150, 152 X 152, 160 X 74, 160 X 82, 175 X 85, 180 X 82, 180 X 91, 200 X 100, 225 X 110, 250 X 125, 300 X 140, 300 X 150, 350 X 14C, 400 X 140, 450 X 150, 500 X 180, 600 X 210.

LENGTH ( METER) :: 6, 9, 10 , 11 & 12

ROLLING TOLERANCE :: IS 1852, DIN 1025 AND OTHER ACCEPTABLE EQUIVALENT INTERNATIONAL STANDARD

INVOICING :: AS PER MUTUAL AGREEMENT FOR ACTUAL OR THEORETICAL WEIGHT

PACKING :: IN BUNDLES FROM 2 TO 5 MT MAX WITH UNIFORM PIECE COUNT PER BUNDLE WHICH WILL BE FASTENED AND PACKED WITH 4 TO 5 SIGNODE BANDS AT EQUIDISTANT PLACES.



# P.K.G. Exports Pvt. Ltd.



**PRODUCT CODE**                    :: PKG/RO/12

**DEFORMED BARS**

**SPECIFICATION**                :: ASTM A615 GR 40/60, BS4461, BS4449 GR 250,  
DIN 1045, JISG 3112 SD 24, 30,35,IS 1786,  
GOST 5781.

**SIZES (MM)**                    : : 8,10,12,14,15,18,20,22,25,28,30,  
32,34,36, 38 & 40.

**LENGTH (METER)**            : : 9, 10, 12.

**LENGTH TOLERANCE**        : : + 100/ - - 50 MM

**INVOICING**                    : : ACTUAL WEIGHT

**PACKING**                     : : IN BUNDLES FROM 2 TO 5 MT MAX WITH UNIFORM PIECE  
COUNTING PER BUNDLE WHICH WILL BE FASTENED AT 4  
TO 5 EQUIDISTANT PLACES WITH SIGNODE BANDS AND  
2 TIE WIRE RODS WILL BE TIED TO  
FACILITATE IN LIFTING OF THE BUNDLE.

**TOLERANCE**                    : : DIN 488



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE : : PKG/RO/13

## ROUND BARS

### QUALITY

### SPECIFICATION

MILD STEEL

IS 226, 2062, ASTM A615 GR 40, DIN 17100  
ST 37.2 JISG 3112 SD 30A

CARBON STEEL

BS970- EN 3A, EN 8, EN8 80M, EN 9, EN 32B,  
EN 42B, EN 43B. DIN CK 35, CK 45.  
SAE 1035, 1038, 1040, 1042,1045,1046, 1055.  
LOW ALLOY STEEL EN 353/354,EN 16,EN 17,  
EN 18, EN 19, EN24 42B, EN 43B,DIN CK 35,  
CK 45. SAE 1035, 1038, 1040, 1042, 1045,  
1046, 1055.

LOW ALLOY STEEL

EN 353/354, EN 16, EN 17, EN 18, EN 19,  
EN 26, EN 30B, EN 12, SAE 1335, 5136, 5140,  
16 CR NI 4.

MEDIUM CARBON ALLOY  
CONSTRUCTIONAL STEEL

EN 15 A/B, EN 18B/C, EN 111, EN 16, EN 19A,  
EN 26, EN 30B, EN 12, SAE 1335, 5135, 5140,  
3140, 4140, 4142, 4340, DIN 34 CR 4,37 CR  
4, 41 CR 4,42 CR V6, 42 CR MO4, 34 CR NIM06

SPRING STEEL

BS970 - EN 48, EN 47, SAE 5147, 5150, 6150,  
58 CR V4. JIS SUP 6, 9, 9A

COLD HEADING QUALITY

SAE 1008, 1010, 1015, 1018, 1541

FREE CUTTING STEEL		EN 1A, EN 8M, SAE 1146, EN 15AM
CASE HARDENING STEEL		BS 970 - EN 32A, EN 34, EN 207, EN 351, EN 362, EN 36A/B, EN 36C, EN 354
CHROMIUM STEEL		DIN 20 Mn Cr5, 16 Mn Cr 5, 41 CR 4 OR EQUIVALENT
CHROMIUM MOLYBDENUM STEEL		EN 19, SAE 4140, DIN 42 CR M04, SCM 440 OR EQUIVALENT
FORGING QUALITY STEEL		SAE 1010 - CL 11, I V, V
SIZES (MM)	::	IN ALL STANDARD SIZES BETWEEN 10 TO 450MM IN ROLLED, ANNEALED/NORMALISED, HARDENED AND TEMPERED, FORGED CONDITION OR ANY OTHER CONDITION AS PER BUYERS REQUIRMENT.
LENGTH	::	AS REQUIRED BY THE BUYER AND /OR AS PER MUTUAL AGREEMENT DEPENDING UPON THE DIAMETER
TOLRENCE	::	AS PER STANDARD INTERNATIONALLY ACCEPTABLE SPECIFICATIONS.
INVOICING	::	AS ACTUAL WEIGHT.
PACKING	::	STANDARD EXPORT SEAWORTHY PACKING.



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE : : PKG/RO/14

## BLOOMS

SPECIFICATION : : IS 2830, ASTM A615 GR 40 AND AS PER MAJOR INTERNATIONAL SPECIFICATIONS. DEPENDING UPON THE MUTUAL AGREEMENT SUPPLIES CAN ALSO BE EFFECTED ON THE BASIS OF CHEMICAL COMPOSITION

SIZES (MM) : : ANY SIZE BETWEEN 95 TO 350 MM

CHEM.COMPOSITION : : CARBON -- 0.24 - 0.35%, MN - - 0.60 - 0.90%  
Silicon - 0.35% MAX. S & P - 0.055% MAX EACH  
IF YOU HAVE A SPECIFICE REQUIRED CHEMISTRY PLEASE FURNISH US THE SAME SO THAT THE MAY ENDEAVOUR TO GET THE PRODUCERS ACCEPTANCE.

TOLERANCE : : LENGTH : : +/- 100 MM +/- 3 MM  
WIDTH : :  
DIAGNOT : : 5 MM MAX

INVOICING : : ACTUAL WEIGHT

PACKING : : LOOSE



**PRODUCT CODE :: PKG/R0/15**

**ALLOY CONSTRUCTIONAL STEEL**

<b>SPECIFICATION</b>	<b>::</b>	<b>IS</b>	<b>EN</b>	<b>DIN</b>	<b>AISI /SAE</b>	<b>SS</b>
		20C15	En14A	----	1524	150M28
		27C15	En14b	28Mn6	1527	1580M28
		37C15	En15,15A	36Mn5	1536	150N36
		---	---	35Mn5	1041	---
		35Mn6MO3	En16	---	--	605M36
		35Mn6MO4	En17	---	--	608M38
		40Cr4	En18	37Cr4, 39Cr4 41Cr4	5140	530M40
		40Cr4Mo3	En19,EN19A	42CrMo4	4140,4142	708M40
		40Ni6Cr4mo3	En24	34CrNiMo6	4340	817M40
		31Ni10Cr3Mo6	En254	-----	--	826M31
		40Ni10Cr3Mo6	EN26	---	--	826M40
		30NiL3Cr2	EN30A	-----	----	-----
		40NiL6Cr4Mo2	En110	-----	----	816M40
		35Ni5Cr2	En111	---	---	640M40
		-----	---	50CrMo4	41050	----

**SHAPE** : : ROUND, DIA BLOCK, BLOOM, BILLET, STEP FORGING BAR, FLAT, SHEET AND PLATE ETC, FOR FORGING APPLICATION, CUSTOMERS DRAWING OR A SKETCH WOULD BE REQUIRED.

**CONDITION** : : ROLLED, FORGED & ANNEALED, FORGED & NORMALISED.ROLLED & ANNEALED, HARDENED & TEMPARED / DRAWN ETC. MECHANICAL PROPERTIES OR HARDNESS WILL CONFIRM TO THE CUSTOMERS REQUIRMENT



**ACCORDING TO SIZES.**

- SIZES** : : IN ALL STANDARD DIAMETERS FOR THE ROUNDS, WIDTH, FOR PLATES / FLATS, SQUARE SIZES FOR BILLETS ETC.
- TESTS** : : MECHANICALS, HARDNESS, HARDENABILITY TESTS, GRAIN SIZE, MICROSTRUCTURE, CLEANLINESS, MACROETCHING TEST, ULTRASONI.
- QUANTITY** : : WE GENERALLY HAVE A NORM FOR QUANTITY ACCEPTANCE FOR A MINIMUM QUANTITY & CONSIDERING THE WIDE RANGE OF SPECIFICATION IT IS DIFFICULT FOR US TO MENTION HERE ABOUT THE MINIMUM QUANTITY OF SUPPLY CORRESPONDING TO EACH SPECIFICATION.

**THEREFORE THE CUSTOMER MUCH INFORM US ABOUT THEIR REQUIREMENT AND WE SHALL GIVE OUR PROMPT REPLY.**

- STRAIGHTNESS** : : HOT BED STRAIGHTENED OF MACHINE STRAIGHTEND STANDARD.
- PACKING** : : EXPORT SEAWORTHY PACKING AS PER THE SIZES AND QUANTITY OF A PARTICULAR CONSIGNMENT.



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE : : PKG/R0/16

SLABB

SPECIFICATION : : CHEMISTRY OF ASTM A36, DIN 171000 ST 37.2,  
BS4360 GR 43A, JISG 3101 SS41

QUALITY : : KILLED QUALITY

THICKNESS (MM) : : 65, 70, 75, 80, 90, 95, 100, 110, 120, 130,  
140, 155, 160, 175, 190, 195, 200,  
210, 245, 350

WIDTH (MM) : : 150 TO 700 AND 1000 TO 2000

LENGTH (METER) : : 9, 10, 11 & 12

WEIGHT : : 30 MT MAX

CHE. COMPOSITION : : AS MENTIONED ABOVE AND AS PER CUSTOMERS ORDER'

TOLERANCE : : ON THICKNESS - - + / - 55 MM (IN COLD  
CONDITION ON WIDTH - - +/ - 10 MM - 5 MM

INVOICING : : ACTUAL WEIGHT

PACKING : : LOOSE



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE : : PKG/R0/17

CTD BARS ( COLD TWISTED )

SPECIFICATION : : ASTM A615 GR 40, JIS G 3112 SD 30A IS  
1786 Fe415

SIZES (MM) : : 8, 10, 12, 14, 16, 18, 20, 22, 25, 28, 30, 32, 34, 36,  
38, 40, 42, 44, 46, & 48.

LENGTH (METER) : : 6, 9, 10, 12.

LENGTH (TOLERANCE) : : +/- 100 MM

INVOICING : : ACTUAL WEIGHT

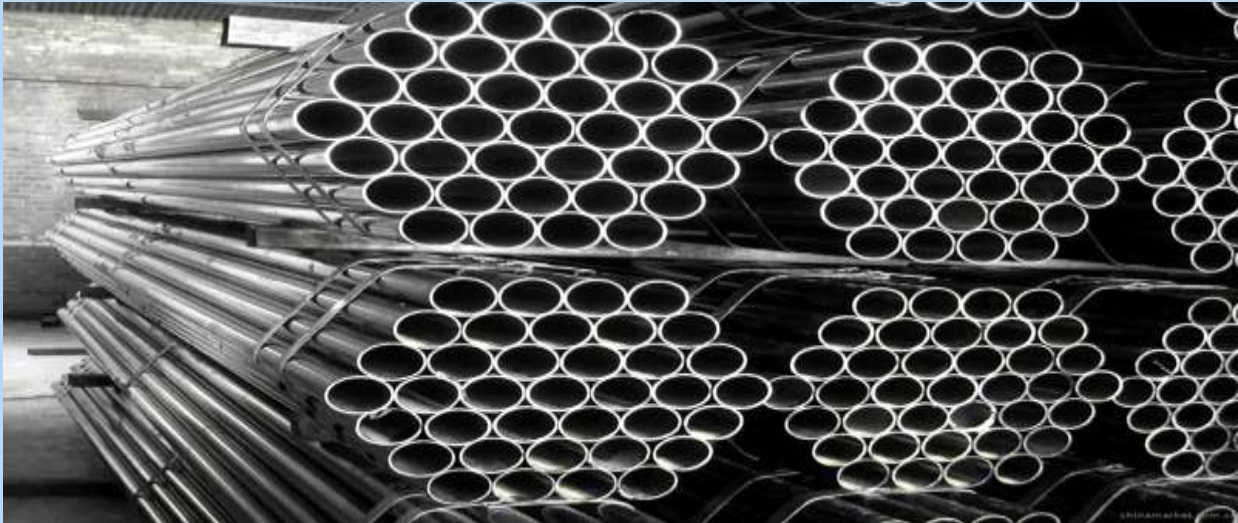
CHM.COMPOSITION : : C - 0.30, S- 0.06, P- 0.06, S&P - 0.11 (% MAX)

MECH PROPERTIES : : YIELD STRENGTH (N/m<sup>2</sup>) - 415, TENSILE STRENGTH  
(N/mm<sup>2</sup>) - 485 ELONAGATION% - 14.5

PACKING : : IN BUNDLES FROM 2 TO 5 MT MAX WITH UNIFORM  
PIECE COUNTING PER BUNDLE WHICH WILL BE  
FASTENED AT 4 TO 5 EQUIDISTANT PLACES WITH  
SIGNODE BANDS.



# P.K.G. Exports Pvt. Ltd.



**PRODUCT CODE** : : PKG/R0/18

**MILD STEEL PIPES (PLAIN END/SCREWED SOCKETED)**

**SPECIFICATION** :: IS 1161, ID 3589, ISS 1239, BS 1387, BS 1775, BS 1139 PART 1, ASTM A120 SCH 40, ASTM A53, SCH 40, API 5 L GR A&B, API 5L X 42, 5L X 46 DIN 2439, 2440 & 2441, JISG 3452, ISO 65, ISO 559

**WELDING TECHNOLOGY** :: HIGH FREQUENCY ELECTRIC RESISTANCE WELDING AND ALSO CONTINUOUS WELDING

**NOMINAL BORE (MM)** :: 15, 20, 25, 32, 40, 50, 65, 80, 100, 125, 150, 175, 200.

**CLASS** :: A 1 TYPE, LIGHT, MEDIUM & HEAVY  
**O.D (MM)** :: 219.1, 273.05, 323.8, 355.6, 406.4 (LARGER DIA PIPES)

**WALL THICKNESS** :: FROM 1.5 TO 14 (MM)

**LENGTH (METER)** :: 6, 9, 12 AND AS PER CUSTOMERS REQUIRMENT

**TOLERANCE** :: ON LENGTH AND OUTSIDE / INSIDE DIAMETER WILL BE AS PER THE STIPULATED PIPE SPECIFICATION.

**COATING** :: WITH OR WITHOUT VARNISH COATING (CUSTOMER'S OPTION)

**INVOICE** :: AS PER MUTUAL AGREEMENT FOR THEORITICAL OR ACTUAL WEIGHTH

END PROTECTORS

:: PVC END PROTECTORS FOR P/E PIPES AND  
STEEL SOCKETS FOR SOCKETED PIPES.

PACKING

:: IN BUNDLES BETWEEN 1 TO 3 MT WITH UNIFORM  
PIECE COUNT PER BUNDLE, 4 TO 5 SIGNODE  
BANDS STRAPPED AND FASTENED AT EQUIDISTANT  
PLACES.



# P.K.G. Exports Pvt. Ltd.



<b>PRODUCT CODE</b>	: : PKG/R0/19
<b><u>GALVANISED STEEL PIPES (PLAIN END / SCREWED / SOCKETED)</u></b>	
<b>SPECIFICATION</b>	: : IS 1161, IS 3589, ISS 1239, BS 1387, BS 1775, BS 1139 PART 1, ASTM A120 SCH 40, ASTM A53, SCH 40, API 5 L GR A&B, API 5L X 42, 5L X 46, DIN 2439, 2440 & 2441, JISG 3452, ISO 65, ISO 559
<b>WELDING TECHNOLOGY</b>	: : HIGH FREQUENCY ELECTRIC RESISTANCE WELDING AND ALSO CONTINUOUS WELDING.
<b>NOMINAL BORE (MM)</b>	: : IS, 20, 25, 32, 40, 50, 65, 80, 100, 125, 150, 175, 200.
<b>CLASS</b>	: : A 1 TUPE, LIGHT MEDIUM & HEAVY
<b>O.D. (MM)</b>	: : 219.1 273.05, 323.8, 355.6, 406.4 (LARGER DIA PIPES)
<b>WALL THICKNESS</b>	: : FROM 1.5 TO 14 (MM)
<b>LENGTH (METER)</b>	: : 6, 9, 12 AND AS PER CUSTOMERS REQUIRMENT
<b>TOLERANCE</b>	: : ON LENGTH AND OUTSIDE / INSIDE DIAMETER WILL BE AS PER THE STIPULATED PIPE SPECIFICATION
<b>INVOICE</b>	: : AS PER MUTUAL AGREEMENT FOR THE THEORTICAL OR ACTUAL WEIGHT

END PROTECTORS : : PVC END PROTECTORS FOR P/E PIPEES AND STEEL  
SCOKETS FOR SOCKTED PIPES

PACKING : : IN BUNDLES BETWEEN 1 TO 3 MT WITH UNIFIRMS PIECE  
COUNT PER BUNDLE 4 TO 5 SIGNODE BAND STRAPPED AND  
FASTENDED AT EQUIDISTANT PLACES.



# P.K.G. Exports Pvt. Ltd.



<u>PRODUCT CODE</u>	: : PKG/R0/20
<u>SEAMLESS PIPES</u>	
<u>SPECIFICATION</u>	: : API 5L 5CI,BS 1387,BS1775,BS 3059 PART 1&II, BS 806 BS3603,BS 6323,BS 980,BS3602,ASTM A-53, ASTM A-192/192 M, ASTM 1-106, A 209, A-210, A213, A-179, A-200, A-333,A334, A-335 DIN 2391,BS 4019 PART I & II, DIN 17175 ST 35,45,15 Mo3, 13 Cr Mo 44,10 CR Mo 910.
<u>FINISH</u>	: : HOT FINISHED / COLD FINISHED
<u>CONDITION</u>	: : HOT FINISHED SHEROIDIZED, CENTRELESS GROUND / TURNED. SPHEROIDIZED COLD FINISHED, STRESS RELIVED.
<u>SIZE RANGE (MM)</u>	: : OUTSIDE DIAMETER : : MIN 6 MAX : 200
<u>WALL THICKNESS (MM)</u>	: : MIN 2.5 MAX : 65
<u>LENGTH (METER)</u>	: : MIN : 3 MAX : 6
<u>TOLERANCE</u>	: : ON WALL THICKNESS AND LENGTH WILL BE AS PER THEE STIPULATED PIPE SPECIFICATION AND CAN ALSO BE PRODUCED AS PER A SPECIFIC CUSTOMERS REQUIRMENT
<u>ECCENTRICITY</u>	: : WITHIN 5% OF WALL THICKNESS.



END PREPARATION : : ENDS ARE CUT, SQUARE AND ONE END IS CHAMFERED

PIPE ENDS : : PLAIN END SHORT ROUND THREAD, LONG ROUND THREAD,  
BUTTERESS THRED AND EXTREME LINE.

INVOICE : : AS PER MUTUAL AREEMENT FOR THEORITICAL OR ACTUAL  
WEIGHT.

PACKING : : LIGHTLY PILED / VARNISH COATED ON ID/OD AND PACKED  
IN WOODEN BOXES OR WRAPPED IN HDPE CLOTH  
(BUYER ` S OPTION) WITH STEEL STRAPS.

PACKING : : LIGHTLY OILED / VARNISH COATED ON ID/OD AND PACKED  
IN WOODEN BOXES OR WRAPPED IN HDPE CLOTH  
(BUYER ` S OPTION )WITH STEEL STRAPS

BUNDLE WEIGHT : : BETWEEN 750 TO 2000 KG WITH UNIFORM PIECE COUNT  
PER BUNDLE



# P.K.G. Exports Pvt. Ltd.



**PRODUCT CODE** : : PKG/R0/21

**SAW PIPES ( SUBMERGED ARC WELDED STEEL PIPES)**

**SPECIFICATION** : : API 5L GR A & B, API 5L X 42, 46, 52, 56, 60, 65, 70, & 80 ASTM A252 GR 1,2,& 3, DIN 17172 GR 290, 7 TM TO 480, 7 TM & B.S.T. 3601 - 3602, BS 1775/ 64 API 2B.IS 3589,1978 / 82 YST 210 & YST 240.

**MAIN APPLICATION** : : PETROLEUM AND FERTILZER INDUSTRIES, SOUR OIL AND GAS FIELDS, PRESSURE VESSELS AND WATER/ SWAGE PROJECTS.OFFSHORE AND ONSHORE INSTALLATIONS.

**OUTSIDE DIAMETER** : : MINIMUM 406.4 M (16 INCH) MAX 1219 MM ( 48 INCH)

**WALL THICKNESS** : : MIN : 6 MM MAX : 32 MM

**LENGTH** : :12 METER ( 40 FEET) WITH PROVISION UPTO 24 METERS (80 FEET )

**INVOICE** : : THEORITICAL WEIGHT

**END** : : PLAIN ENDS

**TESTING** : : TESTING ARRANGEMENTS FOR BOTH DESTRUCTIVE AND NON DESTRUCTIVE TEST CONFROMING TO AMERICAN PETROLEUM INSTITUTE STANDARDS.

**COATING** : : PROTECTIVE COATING IS APPLIED ON THE PIPES BEFORE SHIPMENT.

**INSTALLED CAPACITY** : : PROTECTIVE COATING IS APPLIED ON THE PIPES BEFOR SHIPMENT

**INSTALLED CAPACITY ANNUM** : : 7,50,000 METRIC TONNES PER ANNUM



## STEEL WIRES

OUR WIRES LIST IS EXHAUSTIVE. THE DETAILED ILLUSTRATION WITH SPECIFICATION OF EACH VARIETY OF WIRES WOULD BE TOO ELABORATE TO PRINT IN THIS LIMITED SPACE. WE ARE THEREFORE PRINTING HERewith THE MAIN TYPES OF WIRES PRODUCED AND WHICH CAN BE OFFERED.

THE WIRES PRODUCED CONFORM TO MOST OF THE STRINGENT INTERNATIONAL SPECIFICATION AND UPON RECEIPT OF YOUR ENQUIRY FOR A PARTICULAR WIRE, WE SHALL DESPATCH DETAILED OFFER TO YOU AS SOON AS POSSIBLE.

- |   |   |
|---|---|
| 1. STAINLESS STEEL WIRE                       | 22) COLD HEADING WIRE                   |
| 2. SAFETY LOCK WIRE                           | 23) MIG/MAG WELDING WIRE                |
| 3. ACSR CORE WIRE AND STRANDS                 | 24) MUSIC WIRE                          |
| 4. PRE STRESSED CONCRETE WIRE                 | 25) MESH WIRE                           |
| 5. STEEL STRANDED WIRE/G.I WIRE               | 26) SPHERODIZED ANNEALED M B STEEL WIRE |
| 6. H.C.WIRE = GALVANIZED/UNGALVANIZED         |   |
| 7. M.S. WIRE - DRAWN, ANNEALED AND GALVANIZED |   |
| 8. ALLOY STEEL WIRE                           |   |
| 9. TYRE BEAD WIRE                             |   |
| 10. CABLE ARMOUR WIRE ROUND                   |   |
| 11. STRESS RELIEVED SINGLE                    |   |
| 12. SPRING WIRE -BLACK/GALVANIZED             |   |
| 13. SPOKE WIRE - GALVANIZED/BRIGHT            |   |
| 14. SHUTTER SPRING WIRE                       |   |
| 15. ROPE WIRE - BLACK/GALVANIZED              |   |
| 16. UMBRELLA RIB WIRE                         |   |
| 17. WELDING ELECTRODE CORE WIRE               |   |
| 18. CARD & GILL PIN WIRE                      |   |
| 19. HIGH CARBON BEARING QUALITY WIRE          |   |
| 20. HIGH TENSILE & HIGH DRAWN STEEL WIRE      |   |



# P.K.G. Exports Pvt. Ltd.



PRODUCTS CODE :: PKG/RO/23

## BRIGHT BARS

**SPECIFICATIONS** :: EN 1A, EN 3B, EN 9, EN 16, EN 19, EN 24  
EN 31, EN 32, EN 45 & MAJOR EN SERIES.  
CK 45, FREE CUTTING BARS, COMMERCIAL QUALITY.  
STAINLESS STEEL BARS & OTHERS CORRESPONDING  
TO MAJOR DIN, ASTM & JIS STANDARDS.

**CONDITION** :: COLD DRAWN, CENTRELESS PEELING, GRINDING  
AND POLISHING. TEMPERED, HARDENED & ANNEALED  
QUALITY FOR ROUNDS, SQUARES, HEXAGONS AND FLATS.

**SIZES (MM)** :: FROM 6 TO 150

**LENGTH** :: AS PER CUSTOMERS REQUIREMENT BETWEEN 3 TO 6  
METRE.

**TOLARANCE ON DIA** :: H 9

**TOLARANCE ON LENGTH** :: AS PER CUSTOMERS REQUIREMENT BETWEEN OR AS PER  
MUTUAL AGREEMENT.

**INVOICING** :: AS PER MUTUAL AGREEMENT FOR ACTUAL OR  
THEORITICAL WEIGHT.

**PACKING** :: THE MATERIALS ARE WRAPPED IN HIGH DENSITY  
POLYTHENE AND SIGNODE STRAPPED. THE DUNDLE  
WEIGHT IS BETWEEN 500 TO 1000 KGS.  
PETROLEUM INSTITUTE STANDARDS.



# P.K.G. Exports Pvt. Ltd.



**PRODUCT CODE** :: PKG/RO/24

**FIG IRON**

**SPECIFICATIONS** :: METALLURGICAL (BASIC STEEL MAKING) AND  
FOUNDRY GRADE LIKE LM 1, LM 2, LM,3 & LM 4

COMPOSITION (%)	BASIC STEEL	MAKINGFOUNDRY GRADE
C	3.50 TO 4.50%	3.50 TO 4.00%
Mn	0.40 TO 1.00%	.50 TO UNDER 1.00%
P	0.16 MAX	.220 % AVERAGE
S	0.05% MAX	0.50 % 3.75% SPECIAL GRADE
		2.75 TO 3.25% 1 <sup>st</sup> GRADE
		2.25 TO 2.75% 2 <sup>nd</sup> GRADE

**SIZES** :: PIGS/INGOTS WIEGHT APPROX 45 KG UPTO TWO NOTCHES  
(BASIC STEEL MAKING) AND 20 TO 30 KG UPTO TWO  
NOTCHES (FOUNDRY GRADE)

**PACKING** :: LOOSE

**INVOICE** :: ACTUAL WEIGHT



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE :: PKG/RO/25

STAINLESS STEEL SHEETS/COILS

**SPECIFICATIONS** : : AISI - 301, 304, 304L, 3108, 316, 316L, 321, 09, 410S, 430 & EQUIVALENT SPECN IN JIS, DIN, BS, AFNOR, UNS AND OTHERS LIKE BS-301, S21, 304 S 11, 316 S 31, 316 S 11, 321 S 31, 409 S 17, 430 S 17. DIN - 1.4310, 1.4301, 1.4306 1.4845, 1.4401, 1.4436, 1.4404, 1.4435, 1.4878 1.4512, 1.4016 AND OTHERS.

**FINISH NOS** : : 1, CR, 2D, 2B, 3, 4, 8 & HAIR LINE

**PRODUCTS** : : CR SS SHEETS / COILS OF AUSTHEITIC, FERRITIC & MARTENSTIC GRADES.

**COILS** : : THICKNESS (MM) :: 0.30 TO 6.00

WIDTH (MM) : : STANDARD WIDTH - 1000 & 1250

**INNER DIAMETER (MM)** : : 406 OR 610

**SHEETS** : : THICKNESS (MM) : : 0.50 TO 6.00

WIDTH (MM) : : 600 TO 1250  
STANDARD WIDTH - 1000 & 1250

LENGTH (MM) : : 500 TO 4000  
STANDARD LENGTH - 1500, 2000  
2500, 3500, 4600.

PACKET WEIGHT : : 2.5 MT +/- 10% (FOR SHEETS)

TOLERANCE : : NORMAL TOLERANCE & PRECISION TOLERANCE WILL BE SPECIFIED IN THE COMMERCIAL OFFER. PLEASE CONTACT US FOR DETAILED INFORMATION ON WIDTH, LENGTH AND FLATNESS TOLERANCE.

PRICING :: ON GANGE EXTRAS OR AS PER SPECIFIC SIZES.

PACKING : : TO BE FIRST WRAPPED IN POLYTHENE, GALVANISED IRON/PVC SHEET AND PACKED FIRMLY TO WOODEN PACKETS.

NOTE :: IN ADDITION TO ABOVE CR SS RANGE, HOT ROLLED SS COILS ARE AVAILABLE PLEASE CONTACT US FOR MORE INFORMATION.



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE :: PKG/RO/26

## S.S.WIRE RODS

SPECIFICATION :: AISI - 302, 303, 304, 304L, 316, 316L, 430. JIS - SUS 40, SUS 27, SUS 28, SUS 32, SUS 33 & SUS 24. DIN - 17440 - X 12 CR Ni 18 8, X5 CR Ni 18 9, X 2 CR Ni 18 9 & OTHER SPECIFICATION OF DIN, BS UNI SIS.

APPLICATION :: DRAWING OF FINE GAUGE WIRES AND GENERAL WIRES OF ALL KINDS. COLD HEADING QUALITY FOR NUTS, BOLTS, PINS ETC & FOR DRAWING INTO BRIGHT BARS.

SIZES (MM) :: 5.5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17.3, 18.3 19.5 20, 21, 22 & 23

DIMENSIONS (MM) :: COILS OUTER DIAMETER - 900 MM (36 INCH)  
COIL WEIGHT - APPROX 350 KGS

TENSILE STRENGTH :: 63 KG/mm<sup>2</sup> MAX (90,000 PSI)

CONDITION OF SUPPLY :: HOT ROLLED, ANNEALED AND PICKLED

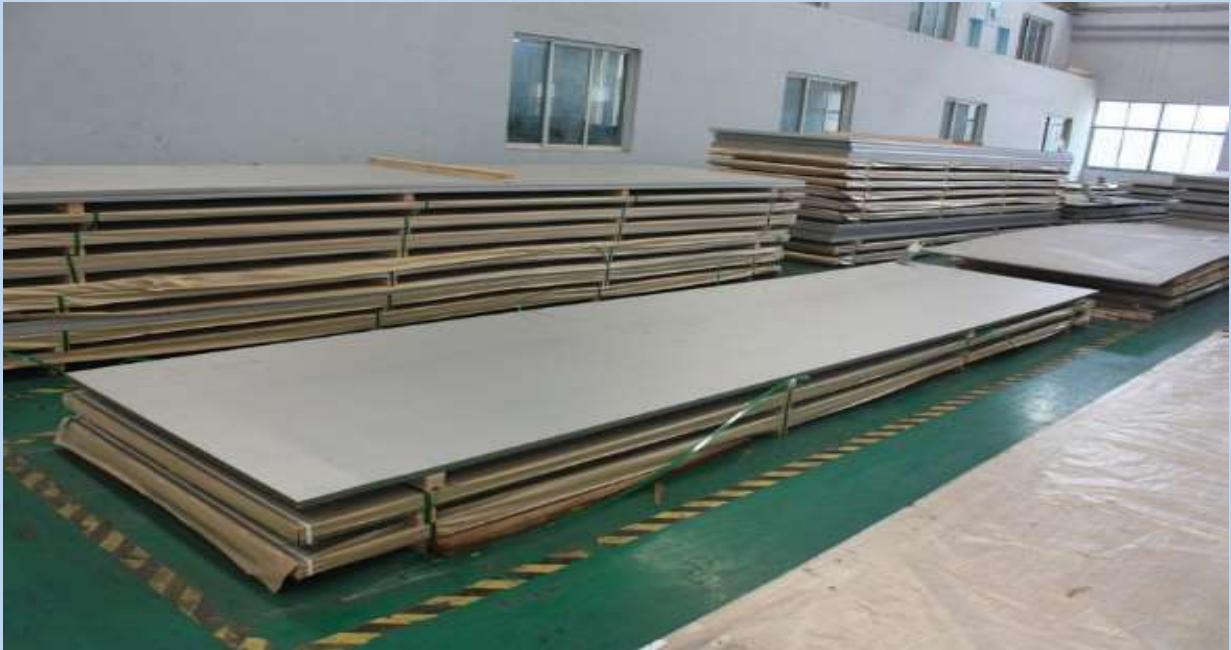
INVOICING :: ACTUAL WEIGHT

PACKING :: EXPORT SEA WORTHY PACKING. COILS WILL BE FIRMLY WRAPPED IN WATER PROOF HDPE COVER AND FASTENED AT 4 TO 5 PLACES WITH SIGNODE BANDS.





# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE :: PKG/RO/27

STAINLESS STEEL HOT ROLLED PLATES

**SPECIFICATION** :: AUSTENITIC STAINLESS STEEL - ASTM - A 240  
201, 202, 302, 304, 304L, 3098, 316, 316L  
317, 317L, 321, 347. ASTM A167 - 309 & 310

FERRITIC STAINLESS STEEL - ASTM A 240 - 430  
AND AISI 446.

MARTENSITIC STAINLESS STEEL - ASTM A 240  
405, 410, 410S. AISI-414, 431 & EQUIVALENT  
SPECIFICATION IN MAJOR INTERNATIONAL STANDARDS.

**FINISH** :: NO. 1 (HOT ROLLED, ANNEALED, PICKLED, STRETCHED  
AND RESQUARED)

**THICKNESS (MM)** :: 5, 6,8, 10 & 12.

**WIDTH (MM)** :: 100 / 1250 / 1400.

**LENGTH (MM)** :: 2000 PLUS MULTIPLE OF 250 MM

TOLERANCE THICKNESS (MM) :: WIDTH (MM) TO 2000 TOLERANCE (MM)

		OVER	UNDER
		THICKNESS	THICKNESS
4.76 TO 9.52	EXCLUDING	1.14	0.25
9.52 TO 19.05	-DO-	1.40	0.25
19.05 TO 25.40	-DO-	1.52	0.25
25.40 TO 50.80	-DO-	1.78	0.25

NOTE :: THICKNESS IS MEASURED ALONG THE LONGITUDINAL EDGES OF THE PLATE AT LEAST 10 MM FROM RDGES BUT NOT MORE THAN 76 MM FROM THE EDGES.



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE :: PKG/RO/28

## FREE CUTTING STEELS

### SPECIFICATION

:: EN 1A, EN 8M, EN 15 (AM), DIN - 9827, AISI - 1123, 1139, 12L14, IS - 13S25, DIN 671 QUALITY 9 SMnPb 28 K AND (ALL MAJOR INTERNATIONAL STANDARD OF ) JIS, AFNOR, SIS, AISI & BS

### QUALITY AND APPLICATION

:: AUTOMATIC SCREW MACHINING QUALITY, MEDIUM-CARBON RESULPHURIZED QUALITY & SCRAPLESS NUT QUALITY MADE OF RESULPHURISED STEEL & LEADED STEEL. APPLICATION OF FREE CUTTING STEEL HELPS IN STREAMLING THE MACHINING PROCESS.

### SIZES (MM)

:: IN DIAMETERS FROM 5.5 TO 100 WHICH CAN BE SUPPLIED IN COILS FROM 5.5 TO 23 MM & STRAIGHT LENGHTS FROM 12 MM OMWARDS.

### DIMENSIONS (MM)

:: OUTER DIAMETER 1220. INNER DIAMETER - 800  
COIL WEIGHT - BETWEEN 1000 TO 1200 KG.

### LENGTH

:: 6/9/10/12 METRE FOR STRAIGHT LENGTHS.

### TOLERANCE

:: +/- 100 MM IN LENGTH

### INVOICING

:: ACTUAL WEIGHT ONLY

### PACKING

:: FOUR SIGNODE BANDS WILL BE TIED AT EQUIDISTANT PLACES IN BARE BUNDLES.





# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE :: PKG/RO/30

IRON ORE

PRODUCTS :: IRON ORE FINES 60/62% IRON ORE CONCENTRATE

SPECIFICATION :: FINES CONCENTRATE ON DRY BASIS

<u>PHYSICAL COMPOSITION</u>	:: BASIS 62 FE%	Fe	- 67% MIN
	Fe - 62%	Feo	- 12% MAX
	SI02	SILICA+	
	+AL203 - 7.5% MAX	ALUMINA	- 4.50% MAX
	AL203 - 3% MAX	PHOSPHORUS	- 0.025%MAX
	SIO2 - 5% MAX	SULPHUR	- 0.01% MAX
	PHOSPHURUS - 0.08% MAX	TI02	- 0.15% MAX
	SULPHUR - 0.02% MAX	OTHER METALS	- 0.2% MAX
	MOISTURE - .10% MAX	LOI	- 1.5% MAX
		AS	- 0.07% MAX
		FREE MOISTURE LOSS	
		AT 105 C	- 9% MAX

PHYSICAL COMPOSITION :: 0 MM TO 10 MM MIN 95% MINUS 100 MESH  
BELOW 10 MM 95% MIN MIN 55% MINUS 325 MESH  
ABOVE 10 MM 10% MAX

QUANTITY :: FEASIBLE QUANTITY IS MINIMUM 25000 MT

CONDITION :: LOOSE AND BULK

PAYMENT :: LOAD PORT ANALYSIS SHALL BE FINAL



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE :: PKG/RO/31

## CHEQUERED PLATES

**QUALITY** :: TEAR DROP QUALITY

**THICKNESS (MM)** :: 5.0, 6.0, 7.0, 8.0 & 10

**LENGTH** :: 2000, 3000, 4000, 5000, 6000, 7000, 8000, 9000 & 10000.

**WIDTH (MM)** :: 600 (-0, +20 MM) 700 (-0, +20 MM)  
900 TO 1200 (NARROW RANGE)  
1201 TO 1550 (WIDER RANGE)

**DESIGN** :: TEAR DROP

**DEPTH** :: DEPTH OF CHEQUERED PLATES SHALL BE 1.2 MM THICK

**NUMBER** :: TEAR DROPS ARE SQUARE METRE SHALL BE : 1250

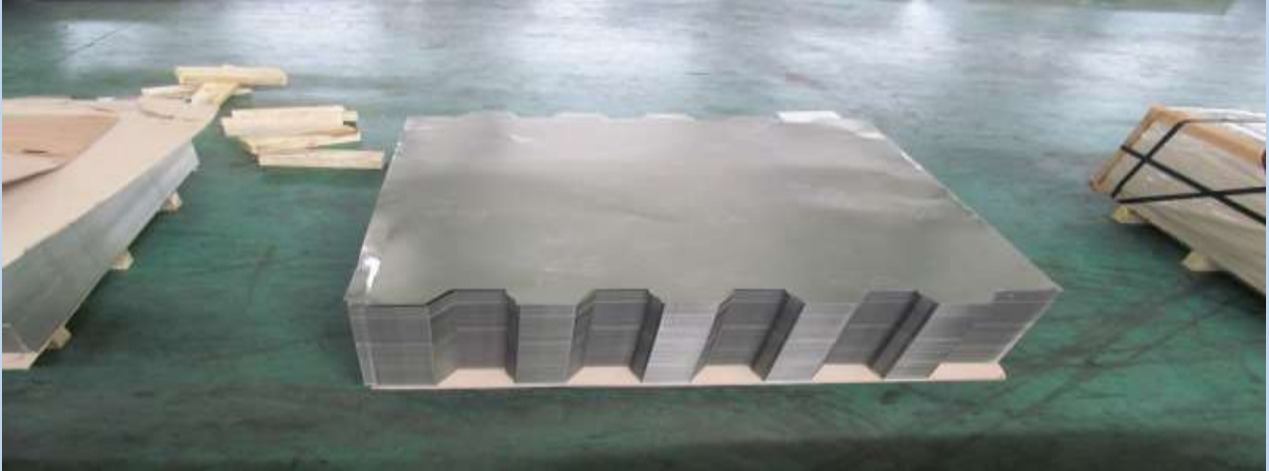
**INVOICING** :: SECTIONAL WEIGHT IN SELECT THICKNESS

5 MM : 40:43 KGS/SQ.METRE  
6 MM : 48:28 KGS/SQ METRE  
7 MM : 56:13 KGS/SQ METRE

**PACKET** :: BETWEEN 2.00 TO 2.5 METRIC TON



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE :: PKG/RO/32

## TIN PLATES

PRODUCTS :: ELECTROLYTIC TIN PLATE

QUALITY GRADES :: PRIME, SECONDS OR WASTE QUALITY

THICKNESS :: 0.17 MM TO 0.60 MM

WIDTH :: 600 MM TO 965 MM

CUT LENGTHS :: 450 MM TO 1100 MM

TEMPER :: T: BATCH ANNEALED : T49, T53, T 57  
CA: CONTINOUS ANNEALED : CA61, CA65 & CA70

FINISH :: MATT/BRIGHT

COATING GRADES	::	DESIGNATION (OLD DESIGNATIONS IN BRACKETS)	NOMINAL COATING WEIGHT gm/m <sup>2</sup>
EQUALLY		E 0.56 / 0.56 (E5)	1.12 (0.56/0.56)
		E 1.12 / 1.12 (E10)	2.24 (1.12/1.12)
		E 2.8 / 2.8 (E25)	5.6 (2.8/2.8)
		E 5.6 / 5.6 (E50)	11.2 (5.6/5.6)
		E 8.4 / 8.4 (E75)	16.8 (8.4/8.4)
		E 11.2 / 11.2 (E100)	22.4 (11.2/11.2)

DIFFERENTIALLY	D 5.6 / 2.8 (D50/25)	5.6/2.8
COATED	D 8.4 / 2.8 (D75/25)	8.4/2.8
	D 8.4 / 5.6 (D75/50)	8.4/5.6
D 11.2 / 2.8 (D100/25)	11.2/2.8	
D 11.2 / 5.6 (D100/50)	11.2/5.6	

SIZES OF OTSC, SIZES & TYPICAL END USE	::	DESCRIPTION	DIMENTION DIA/HT
1.		A 2.2/2	401 X 411 850 gms PROCESSED FOOD, FRUIT, JAM, VEG
2.		A - 10	603 X 700 3.5 kg. MANGO PULP
3.		NO. 1 TALL	301 X 409 450 gms. FISH, MEAT & VEGETABLES
4.		5 1/2 OZ	202/303 MANGO, FRUIT & JUICES

PACKING :: EXPORT WORTHY PACKING





# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE :: PKG/RO/33

PRE COATED / COLOUR COATED SHEETS & COILS

**FORMS** :: ROLLED FORM PANELS, TRAPEZOIDAL PROFILES  
CORRUGATED SHEETS, PLAIN SHEETS, COILS &  
NARROW SLIT STRIPS.

**COATING SPECN** :: AS PER JIS - G / 3312 OR ECCA, TO SUIT  
VARIOUS APPLICATIONS.

**THICKNESS (MM)** :: 0.25 TO 1.25

**WIDTH (MM)** :: 500 TO 1250. STANDARD WIDTH IS 900, 1000  
& 1250

**LENGTH (MM)** :: AS PER CUSTOMERS REQUIREMENT.

**INNER DIAMETRE (MM)** :: 508

**OUTER DIAMETRE (MM)** :: 900 TO 1200

**COIL WEIGHT** :: 4 TO 7 MT

**COATING THICKNESS** :: 7 TO 200 MICRONS

**PVC/ACRYLIC  
LAMINATION** :: 100 - 250 MICRONS

**STRIPPALBE GUARD  
FILM** :: 40 MICRONS APPROX

**SUBSTRATE HARDNESS** :: 50 - 65 HRB

RANGE OF COATING

:: POLYSTER, ACRYLIC, PVC, SMP, PVF2, ALKYD  
ORGANOSOL, PLASTISOL ETC.

COLOUR SURFACE

:: BEIGE, BRICK RED, STAIN BLUE, SMOKE GREY,  
TORQUOISE BLUE, CHOCOLATE BROWN, COAL GREY,  
PALE GREEN, ALMOND, COPPER GOLD, PISTA GREEN,  
OLIVE GREEN ETC.

APPLICATIONS

:: ARCHITECTURAL & BUILDING PRODUCTS, DOMESTIC  
APPLICATIONS & ELECTRICAL GOODS, INDUSTRIAL  
PRODUCTS, BUS/COACH/RAIL/SHIP INTERIORS,  
FURNITURE AND OFFICE EQUIPMENTS & OTHERS.



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE :: PKG/RO/34

RAILS

GRADE :: T - 18 / I.U (880)

STEEL :: KILLED QUALITY

SECTION :: 60 KG / METRE

LENGTH :: IU GRADE - 13 METRE  
T - 18 - 9, 10, 11 & 12 METRE

CHEM. COMPOSITION :: T - 18 I. U. GR. II

C	0.60 - 0.80%	0.60 - 0.85%
Mn	0.80 - 1.30%	0.80 - 1.40%
Si	0.10 - 0.50%	0.10 - 0.55%
S&P	0.05% MAX EACH	0.055 & 0.065% MAX

MECH. PROPERTIES :: U.T.S 880 Mpa Min 350 Mpa Min  
% elongation 10% 10%

DIAMENSIONAL TOLERANCE :: T - 18 I. U. GR. II

ON OVERALL HEIGHT OF RAIL	+ 1.6 MM - 0.8 MM	+ 2.0 MM - 1.0 MM
ON WIDTH OF RAIL HEAD	+ 1.8 MM - 0.6 MM	+ 2.0 MM - 2.0 MM
THICKNESS OF WEB	+ 1.6 MM	+ 2.0 MM

ON WIDTH OF FLANGE	- 0.6 MM + 1.0 MM * - 1.0 MM + 1.0 MM ** - 1.5 MM	- 1.0 MM + 1.5 MM - 2.0 MM
( * FOR SECTION LESS THAN 60 KG/M / ** FOR SECTIONS 60 KG/M & ABOVE)		
VERTICAL / ASSYMMETRY	+/- 1.2 MM	
CONCAVITY OF FOOT BASE	0.4 MM MAX	
LENGTH	8 M TO 13 M MULTIPLE OF 1 M	
LENGTH TOLERANCE	+/- 25 MM FOR T-18 & /- 35 MM FOR I.U.GR.II	
OUT OF SQUARE	0.60 MM	

STRAIGHTNESS

:: IN CASE OF T - 18

MAY IMUM DEVIATION SHALL BE 1.5 MM MEASURED AS THE MAXIMUM ORDINATE ON A CHORD OF 1.5 M STRAIGHT EDGE MEASURED AT BOTH ENDS OF RAIL.

THE FINISHED RAIL WHEN STANDING ON ITS BASE SHALL BE REASONABLY STRAIGHT SHALL BE CAPABLE OF BEING PULLED BY HAND IN A STRAIGHT LINE.

IN CASE OF I.U.GR.II

RAILS WITH REASONALBE DEVIATION IN STRAIGHTNESS SHALL BE ACCEPTABLE.



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE :: PKG/RO/35

SPRING STEELS

SPECIFICATION

:: EN 42, 42B, 42C, 42D, EN 43, 43A, 43B, 43C, 43D, EN 44, 44B, 44C, EN 45A, EN 47 & EN 48.  
DIN - CK 53, 60, 66 Si7, 58 CrV4, 42CrV6,  
AISI 1055, 1060, 1065, 5147, 5150, 8150,  
9255 & 9260. JIS - SUP 6, 9, 9A, SCM 440.

SIZES

:: ROUND EDGED FLAT BAR  
ALL SIZES BETWEEN 30 X 3 MM UPTO WIDTH OF  
160 MM IN ALL RATIONAL THICKNESS.

SQUARES

FROM 20 MM TO 100 MM SQUARE

ROUNDS

FROM 12 MM UPTO 100 MM

LENGTH

:: 4, 6, 9, 10, 12 METRE

BUNDLE WEIGHT :: FROM 1.00 MT UPTO 3 MT WITH UNIFORM PIECE  
COUNT PER BUNDLE WHICH WILL BE STRAPPED AT  
4 TO 5 PLACES WITH SIGNODE BANDS.

TOLERANCE :: AS PER MILLS PRODUCTION DEPENDING UPON THE  
SIZES OR AS PER MUTUAL AGREEMENT BETWEEN  
MILL AND CUSTOMER.

INVOICING :: ACTUAL WEIGHT.

SHIPMENT :: BREAKBULK / CONTAINERIZED.



# P.K.G. Exports Pvt. Ltd.



**PRODUCT CODE** :: PKG/RO/36

## H.C.H.C. BEARING STEELS

<b>SPECIFICATION</b>	<b>::</b>	<b>C</b>	<b>Si</b>	<b>Mn</b>	<b>Cr</b>	<b>V</b>
AISI 52100	::	0.98/1.10	0.15/0.35	0.25/0.47	1.30/1.60	-
EN 31	::	0.90/1.20	0.10/0.35	0.30/0.75	1.00/1.60	-

AND EQUIVALENT SPECIFICATION OF DIN :100 CR6.  
 BS : 534A99/535A99 . SAE 52100 AND DERIVATIVES  
 FOR THROUGH - HARDENING , AND CASE HARDENING  
 STEELS PF SAE 8620 TYPE.

**APPLICATIONS** :: FOR PRODUCING BALL, NEEDLE AND ROLLER BEARINGS  
 AND MANUFACTURING OF SEAMLESS TUBES, ROLLING  
 COMPONENTS, FORGEMASTERS AND WIRES.

**SIZES** :: INGOTS : UPTO 7.5 MT  
 SQUARE BILLETS AND BLOOMS : 50 TO 400 MM  
 ROLLED ROUNDS : 36 TO 325 MM  
 WIRE RODS : 5 TO 32 MM  
 DRAWN WIRE : 1 TO 25MM

**LENGTH** :: 3, 4, 5.5, 6, 8, 9, 10, 12 METRES FOR ROUND AND  
 BILLETS.

**COIL WEIGHT** :: BETWEEN 1 TO 1.2 MT FOR WIRE RODS.

**BUNDLE WEIGHT** :: BETWEEN 1.5 TO 3 MT FOR ROUNDS AND BILLETS.

**TOLERANCE** :: AS PER INTERNATIONAL STANDARD CORRESPONDING TO THE  
 SIZES AND SPECIFICATIONS.

**INVOICING** :: ACTUAL WEIGHT.

**SHIPMENT** :: BULK



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE            ::    PKG/RO/37

FORGINGS

RANGE OF PRODUCTS    ::

- CLOSED DIE FORGINGS
- CRANK SHAFTS (SINGLE THROW TO SIX THROW)
  - CONNECTING RODS
  - GEAR SHIFTING FORKS
  - STEERING ARMS- DROP ARMS
  - DIFFERENTIAL BEVEL GEARS
  - AXLE SHAFTS- STUB AXELS
  - TRACK LINK FOR CRAWLER TRACTORS
  - DIFFERENTIAL PINLONS
  - GEAR BOX SHAFTS
  - COUNTER SHAFT GEARS
  - PINION SHAFTS
  - CROWN WHEEL AND PINIONS
  - FRONT AXELS
  - DIFFERENTIAL CASE
  - DIFFERENTIAL COVER
  - SPINDLE
  - FORK HEAD
  - GEARS- CAM SHAFT GEARS
  - DRIVE PINIONS
  - COUNTER WEIGHTS



- HAMMER BARS

OPEN DIE FORGINGS :: FORGED BARS : 100 TO 600 MT DIA WITH LENGTH OF UPTO 13 METRE AND WEIGHT UPTO 8 MT.

FORGED SQUARE : 100 TO 600 MM SQUARE WITH LENGTH OF UPTO 13 METRE AND WEIGHT UPTO 8 MT.

FORGED FLATS : THICKNESS FROM 100 UPTO MM WITH BREADTH BETWEEN 80-500 MM AND LENGTH UPTO 8 METRE. THE WEIGHT OF THE FLATS SHALL BE UPTO 8 MT.

FORGED RINGS : OUTER DIAMETRE : 1200 MM  
INNER DIAMETRE : 150 MM  
100 < M < 500  
WEIGHT : UPTO 3 MT

HOLLOW SHAFTS : D : 400 - 800  
> S 80  
L < 2000  
WEIGHT : UPTO 3 MT



# P.K.G. Exports Pvt. Ltd.



**PRODUCT CODE** :: PKG/RO/38

## **CASE HARDENING STEELS**

**SPECIFICATION** :: EN-32A,32B,32C,207,353,354,34,362,36A,351, 355, 325.  
DIN - C15, CK 15, 15 Cr3, 16 MM Cr5, 20 Mn Cr5,  
17 CrNiMo6, 15 CrNi6.  
AISI - 1015, 3310, 4320, 4620, 5115, 8620.  
BS-527M20, 815M17, 820 M17, 665 M 17, 805 M 20,  
655 M 13, 635 M 15 AND 822 M 17.

**CONDITION** :: HARDENED AND TEMPERED, BLANK HARDENED, SUPPLIED TO COMPOSITION.

**RANGE** :: ROUNDS : 10 TO 200 MM IN STRANGTH LENGTH  
WIDE RODS : 5 UPTO 32 MM IN COILS  
OTHER : FLATS, SQUARE BARS, BILETS, FORGED BARS ETC.

**DIMENSIONS** :: CASE HARDENING STEELS ARE PRODUCED IN ALL STANDARD SIZES.TOLERANCE AND DIMENSIONS CAN BE SUPPLIED AS PER INDIVIDUAL CUSTOMERS REQUIREMENT.



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE :: PKG/RO/39

HIGH SPEED STEELS  
SPECIFICATION

: : BOHLER S 200, AISI - T1, BS - BT1, JIS - SKH2,  
DIN - S18 - 0 - 1 USED FOR TURNING, PLANNING AND  
SLOTING TOOLS, TAPS TWIST DRILLS, THREADING  
DIES PROFILE CUTTING TOOLS, REAMERS.

BOHLER S 305, AISI - T4, BS - BT4, JIS - SKH3, DIN-  
S18-1-2-5 USED FOR TURNING AND MILLING TOOLS IN  
PARTICULAR FOR ROUGHING WORK.

BOHLER S 308, AISI-T15, BS-BT15, DIN-S12-1-4-5 USED  
IN TURNING TOOLS FOR FININSHING AND PRECISION  
CUTTING WORK, WHERE MAX ABRASION RESISTANCE AND  
HARDNESS RETENTION AND RED HARDNESS IS REQUIRED.

BOHLER S 700, BS- BT 42, JIS- SKH 37, DIN- S10- 4-3-  
10 USED FOR TURNING AND MILLING TOOLS FOR ROUGHING  
AND FINISHING WORK, WOOD WORKING  
TOOLS, HIGHLY STRESSED COLD WORK TOOLS AND TOOL BITS.

BOHLER S 600, AISI-M2, BS-BM 2. JIS- SKH 51 DIN -S6-5-2  
AND BOHLER S607 , AISI - M 3CL2, BS- BM4, JIS SKH  
53, DIN S6-5-3. USED FOR TAPS,  
TWISTDRILLS, REAMERS, MILLING AND BROACHNG TOOLS,  
METAL SAVES AND MILLING TOOLS OF ALL TYPES.

BOHLER S 705, AISI-M41, BS-BM35, JIS- SKH 55, DIN-  
S6-5-2-5 USED FOR TURNING, PLANNING TOOLS OF ALL  
TYPE, MILLING CUTTERS, BROACHES  
AND HOBS, TAPS, TWIST DRILLS, WOOD WORKING TOOLS.

BOHLER S 500, AISI-M 42, BS- BM 42, JIS- SKH 59,  
DIN - S2 - 10-1-8 USED FOR MILLING CUTTERS, TWIST  
DRILLS TAPS, BROACHING TOOLS AND COLD WO TOOLS.

BOHLER S 610 & DIN - S 3-3-2 USED AS A ECONOMICAL  
HIGH SPEED STEEL GRADE IN MAJOR MILLING APLICATIONS.



# P.K.G. Exports Pvt. Ltd.



**POWER METALLURGY GRADES  
CHEM COMPOSITION (AVG. VALUE IN COMPOSITION)**

BOHLER STANDARD	C	Cr	Mo	V	W	Co	APPLICATION
ASP 23	1.27	4.2	5.0	3.1	6.4	-	ECONOMICAL PM HIGH SPEED GRADE TURNING & MILLING TOOLS. HIGHLY STRESSED COLD WORK TOOLS/TOOL BITS.
ASP 30	1.27	4.2	5.0	3.1	6.4	8.5	MACHINERY TOOLS, eg FOR MACHINING OF NICKEL-BASE & TITANIUM ALLOYS ETC.
ASP 60	2.30	4.0	7.0	6.5	6.5	10.5	FOR ROUGHING & FINISHING WORK
	1.33	4.3	4.9	4.1	5.9	-	HEAVY DUTY MACHINERY TOOLS FOR MACHINE OF NON FERROUS METALS
	2.0	4.0	3.0	7.0	3.5	-	PIPES & PUNCHES FOR COLD FORGING, PIN AND FINE BLANKING TOOLS REQUIRING HIGH WORK RESISTANCE.

**RANGE** :: 6 TO 25 MM DIA IN ANNEALED & CENTRELSS GROUND CONDITION TO "h9"

TOLERANCE- 8 TO 55 MM DIA IN ANNEALED CONDITION

16 TO 50 MM DIA IN ANNEALED & PEELED CONDITION TO "h 11" TOLERANCE

-56 TO 180 MM DIA IN ANNEALED CONDITION

-SQUARE 8.5 TO 50 MM

-SQUARES (RCS) 35 TO 80 MM

-FLAT : THICKNESS 6 TO 40 MM MIN \* AREA 150 mm<sup>2</sup>

WIDTH 25 TO 80 MM MAX \* AREA 1750 mm<sup>2</sup>

**LENGTH** :: UPTO 50 MM DIA - 2.5 TO 4 METERS

50 TO 180 MM DIA-1.5 TO 6 METERS

**STRAIGHTNESS** :: UPTO 50 MM DIA : 1 MM MAX IN 500 MM

50 TO 180 MM DIA : 2 MM MAX IN 500 MM



# P.K.G. Exports Pvt. Ltd.



PRODUCT CODE :: PKG/RO/40

FERRO ALLOYS

HIGH CARBON FERRO CHROME

SPECIFICATION :: CR-64% MIN C-8%MAX  
SI-3% MAX S-0.035 %MAX  
P-0.025% MAX

SIZE :: +10/-150 MM (90% MIN) OR ANY OTHER SIZE AS  
MAY BE DESIRED BY INDIVIDUAL CUSTOMERS.

PACKING :: IN BULK OR DOUBLE GUNNY BAGS OF APPROX 50  
KG EACH OR STEEL DRUMS OF APPROX 700 KG  
EACH  
(CUSTOMERS OPTION)

CHARGE CHROME

SPECIFICATION :: CR-60%MIN C-8%MAX  
SI-3%MAX S-0.025% MAX  
P-0.025% MAX

SIZE & PACKING :: SAME AS FERRO CHROME.



# P.K.G. Exports Pvt. Ltd.



## FERRO MANGANESE

SPECIFICATION	::	a)	Mn- 73% MIN	C-8% MAX
			Si- 1.2% MAX	S- 0.05% MAX
			P- 0.25% MAX	
		b)	Mn- 75 - 80%	C-6-8% MAX
			Si- 1.5%	S- 0.02% MAX
			P- 0.4% MAX	
SIZE	::		+25/-100 MM (90% MIN) OR AS PER CUSTOMERS	
REQUIREMENT				
PACKING	::		BULK/50 KGS DOUBLE GUNNY PACKING/ 700 KG STEEL DRUMS	

## CALCIUM SILICIDE

SPECIFICATION	::		<u>ELEMENTS</u>
		<u>GRADE</u>	

	Ca	Si	C	Fe	S	P
Ca 30 Si	30-35%	55-60%	1.0 % MAX	3%	0.07%	0.02%
Ca 25 Si	25-30%	55-60%	1.0 % MAX	3%	0.07%	0.02%

## SILICON

SPECIFICATION	::	<u>GRADE</u>	<u>ELEMENTS</u>
---------------	----	--------------	-----------------

	Si	Fe	Ca	C
SIM 98.5	98.5%	0.5% MAX	0.3%MAX	0.04%
SIM 98	98%	0.5-0.8%	0.3%MAX	0.04%
SIM 97	97%	1.5-2.0%	0.3%MAX	0.04%
SIM 96	96%	3.0-3.5%	0.3-0.5%	0.04%

SILICON WITH LOWER LEVELS OF IRON AND CALCIUM CONTENTS CAN ALSO BE SUPPLIED.



# P.K.G. Exports Pvt. Ltd.



## SILICO MANGANESE

SPECIFICATION ::

GRADE	ELEMENTS			
	Si	C	Ph	S
60-65%	15-18%	2%	0.3% MAX	0.02% MAX
65-70%	16-20%	2%	0.3% MAX	0.02% MAX

## FERRO SILICON

SPECIFICATION ::

GRADE	ELEMENTS		
	Si	Al Max	C Max
HFS 85-90	85-90%	1%	0.10%
HFS 80-85	80-85%	1%	0.10%
HFS 75-80	75-80%	1.5%	0.15%
HFS 70-75	70-75%	1.5%	0.15%
HFS 60-70	60-70%	1.5%	0.15%
HFS 50-60	50-60%	1.5%	0.15%
HFS 45-50	45-50%	1.5%	0.15%
HFS 70-75			
Low A1 1	70-75%	1.0%	0.15%
HFS 70-75			
Low A1 07	70-75%	0.7%	0.15%
HFS 70-75			
Low A1 04	70-75%	0.4%	0.15%
HFS 70-75			
Low A1 01	70-75%	0.1%	0.15%



# P.K.G. Exports Pvt. Ltd.



## EXTRA LOW ALUMINIUM FERRO SILICON

### SPECIFICATION ::

Fe.Si with Al. Content	Item No.	Silicon	Carbon Max	Sulphur Max	Phos. Max	Calcium Max.
(A) 1.25% Max	1	75-80%	0.15%	0.05%	0.05%	0.4%
	2	70-75%	-do-	-do-	-do-	-do-
	3	60-70%	-do-	-do-	-do-	-do-
	4	50-60%	-do-	-do-	-do-	-do-
	5	45-50%	-do-	-do-	-do-	-do-
	6	40-45%	-do-	-do-	-do-	-do-
(B) 0.1 % MAX	1	75-80%	0.05%	0.04%	0.04%	0.1%
	2	70-75%	-do-	-do-	-do-	-do-
(C) 0.4% MAX	1	75-80%	0.08%	0.04%	0.04%	0.1%
	2	70-75%	-do-	-do-	-do-	-do-





# P.K.G. Exports Pvt. Ltd.



## FERRO CHROMIUM

SPECIFICATION ::

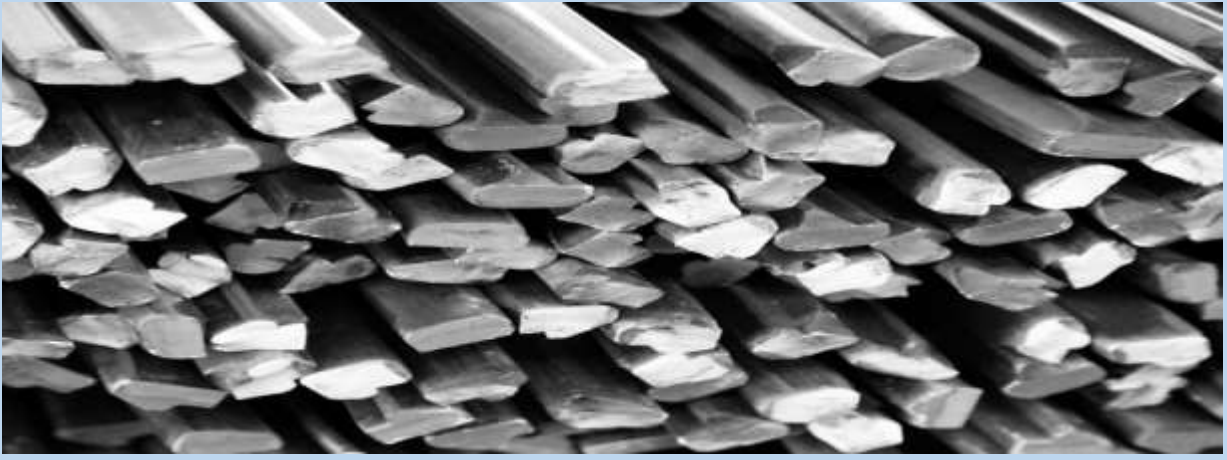
GRADE	ELEMENTS				
	Cr	C	Si Max	S Max	P Max
<b>HIGH CARBON FERROCHROMIUM</b>					
7FeCr65	60-70% 60-70%	6-8% 6-8%	1.5-4% 4-6%	0.04-0.05% 0.04-0.05%	0.03%- 0.05% 0.03%- 0.05%
5FeCr65	60-70% 60-70%	4-6% 4-6%	1.5-4% 4-6%	0.04-0.05% 0.04-0.05%	0.03%- 0.05% 0.03%- 0.05%
7FeCr58	55-60%	6-8%	4-6%	0.04-0.05%	0.03%- 0.05%
5FeCr58	55-60%	4-6%	4-6%	0.04-0.05%	0.03%- 0.05%

## MEDIUM CARBON FERROCHROMIUM

3FeCr55	60% Max	2-4%	1.5%	0.04-0.05%	0.03%- 0.05%
3FeCr64	60-67%	2-4%	1.5%	0.04-0.05%	0.03%- 0.05%
3FeCr71	67-75%	2-4%	1.5%	0.04-0.05%	0.03%- 0.05%



P.K.G. Exports Pvt. Ltd.



PRODUCT CODE :: PKG/RO/41

SPECIAL STEELS



A) NITRIDING STEELS ::  
SPECIFICATION :: DIN-41 Cr AlMo7, 34 CrAlMo5. BS-905M39,  
905M31, 835M30, IS 40 Cr 7Al 10Mo2.  
EN-40A, 40B, 40C, 30B, 41A & 41B.



B) SHOCK RESISTING STEELS :: IS-T55 Si 2 Mn90Mo33, T40W2Cr1V18,  
T50W2Cr1V18, AISI- S3, S1.

TYPICAL PRODUCED CHEMICAL COMPOSITION PERCENT WHICH IS NEAREST  
EQUIVALENT TO ABOVE SPECIFICATION ::

	C	Mn	Si	S&P	Cr	Mo	V	W
GR SR-2	0.58	0.90	2.00	0.025	-	0.30	0.10 (OPT )	-
GR SR-3	0.45	0.30	0.70	0.025	1.30	-	0.20	2.00
GR SR-4	0.55	0.30	0.70	0.025	1.30	-	0.20	2.00

#### CREEP RESISTANCE STEELS

SPECIFICATION :: CHEMICAL COMPOSITION

GRADE DESIGNATION	C	Mn	P (Max )	S (Max )	Si	Cr	Mo	Others
Afnor 15CDV6	0.10/ 0.16	0.80/ 1.00	0.030	0.030	0.20 max	1.25/ 1.50	0.80/ 1.10	v:0.20/ 0.30
ASTM A-213 T11	0.15 max	0.30/ 0.60	0.030	0.030	0.50/ 1.0	1.00/ 1.50	0.44/0. 65	-
ASTM A-213 T22	0.15 max	0.30/ 0.60	0.030	0.030	0.50 max	1.90/ 2.60	0.87/1. 13	-
ASTM A-210 GRADE A1	0.27 Max	0.93 max	0.048	0.058	0.10 min	-	-	-
ASTM A-210 GRADE C	0.35 Max	0.29/ 1.06	0.048	0.058	0.10 min	-	-	-
BS-1501 620B	0.80- 0.15	0.40- 0.70	0.050	0.050	0.10/ 0.30	0.70/ 1.00	0.45/0. 0.65	-



**HAD FIELD MANGANESE STEELS**

**SPECIFICATION        ::**

**CHEMICAL COMPOSITION**

<b>C</b>	<b>Mn</b>	<b>Si (Max)</b>	<b>P (Max)</b>	<b>S (Max)</b>
<b>1.15</b>	<b>13.0</b>	<b>0.60</b>	<b>0.07</b>	<b>0.05</b>

**MECHANICAL PROPERTIES IN WATER-TOUGHEND CONDITION :**

**HARDNESS            :: 220 BHN**  
**T.S.                    :: 94 Kg/mm<sup>2</sup>**  
**ELONG                 :: 50%**

**END USES            :: THE HADFIELD MANGANESE STEEL PLATES ARE USED IN STATIC/  
DYNAMIC COMPONENTS REQUIRING HIGH WEAR RESISTANCE & TOUGHNESS IN JAW  
CRUSHERS, BLAST FURNACE HOPPERS, BREAKER PLATE LINERS FOR HAMMER MILLS, ORE  
BRIDGE HAULAGE DRUMS & BLOOMING MILL HOUSING ETC.**



**E) TOOL STEEL  
SPECIFICATION**

::

**BS**

**DIN**

**SAE/AISI**

BS	DIN	SAE/AISI
BS-5	-	S-5
BS-1	45WCrV7	S-1
BS-1	60WCrV7	S-1
BH-12	X37CrMoV51	H-12
BH-13	X40CrMoV51	H-13
BH-21	X30WCrV93	H-21
BH-1	X38CrMoV51	H-11
BO-1	105WCr6	-
BA-2	X100CrMoV51	-
BD-2	X165CrMoV12	-
BD-3	X210Cr12	-
-	C70W2	W1
-	C80W2	W1
BW1A	C90W2	W1
BW1B	C100W2	W1
224/2	-	-
224/3	-	-
224/5	-	-
224/5	-	-
-	56NiCrMoV7	-

**F) BORON BEARING STEELS**

**SPECIFICATION : : CHEMICAL COMPOSITION**

GRADE	C	Mn	Si	S	P (Max )	Cr	Ni	Mo	Others
AISI 86B45	0.43 0.48	0.75/ 1.00	0.20 0.35	0.035	0.04	0.40 0.60	0.40/ 0.70	0.15/ 0.25	BORON .0005 min
AISI 10B35	0.32/ 0.39	0.60 min	0.15 0.35	0.040	0.05	-	-	-	BORON .0005 min



**G) VALVE STEELS**

**SPECIFICATION : : CHEMICAL COMPOSITION**

GRADE	C	Mn	Si	S	P (Max )	Cr	Ni	Mo	Others
En52	0.40/ 0.50	0.30/ 0.60	3.00/ 3.75	0.040	0.040	7.50/ 9.50	0.50/ max	--	--
En59	0.74- 0.84	0.2/ 0.60	1.75/ 2.25	0.030	0.030	19.0/ 20.5	1.16/ 1.65	--	--



## H) HOT WORK TOOL STEELS

SPECIFICATION

: :

CHEMICAL COMPOSITION

ASP GR DESIG	C	Mn	Si	S	P	Cr	Mo	V	W	iS	AISI
HW-1	0.35	0.35	1.00	0.25	0.25	5.00	1.50	0.30	1.50	T33CrMoWivV30	H-12
HW-2	0.35	0.35	1.00	0.025	0.025	5.00	1.50	1.10	--	T33Cr5moV1	H-13
HW-3	0.32	0.35	0.25	0.025	0.025	3.10	--	0.40	90.00	T33w90Cr3V35	H-21
HW-4	0.35	0.35	1.00	0.025	0.025	5.00	1.50	0.30	--	T33Cr5Mo1V30	H-11



## I) COLD WORK TOOL STEELS

SPECIFICATION

: :

CHEMICAL COMPOSITION

ASP GR DESIG	C	Mn	Si	S	P	Cr	Mo	V	W	iS	AISI
CW-1	0.90	1.30	0.25	0.025	0.025	0.50	--	0.20 (OPT)	0.50	T90Mn2W50Cr45	C-1
CW-2	1.00	1.00	0.25	0.025	0.025	5.00	1.10	0.40	--	--	A-2
CW-3	1.60	0.35	0.25	0.025	0.025	12.0	0.7 (OPT)	0.80 (OPT)	--	T160Cr12	D-2
CW-4	2.15	0.35	0.25	0.025	0.025	12.5	0.30 (OPT)	0.25 (OPT)	--	T215Cr12	D-3



**J) CARBON TOOL STEELS**

**SPECIFICATION : : NOMINAL CHEMICAL COMPOSITION PERCENT  
NEAREST EQUIVELENT SPECN**

ASP GR DESIG	C	Mn	Si	S	P	Cr	Mo	V	W	iS	AISI
CTS-1	0.70	0.30	0.25	0.03	0.03	--	--	--	--	T-70	W-1
CTS-2	0.80	0.30	0.25	0.03	0.03	--	--	--	--	T-70	W-1
CTS-3	0.90	0.25	0.25	0.03	0.03	--	--	--	--	T-90	W-1
CTS-4	1.00	0.25	0.25	0.03	0.03	--	--	--	--	T-103	W-1



**J) DIE BLOCK STEELS**

**SPECIFICATION : : NOMINAL CHEMICAL COMPOSITION PERCENT  
NEAREST EQUIVELENT SPECN**

ASP GR DESIG	C	Mn	Si	S	P	Cr	Ni	Mo	V	iS	BS/DIN
DB-2	0.55	0.65	0.25	0.04	0.04	--	1.25	--	--	T60Ni1	BSS:242/2
DB-3	0.55	0.65	0.25	0.04	0.04	0.65	1.45	--	--	---	BSS:224/3
DB-4	0.55	0.60	0.25	0.04	0.04	0.95	0.90	0.35	--	---	BSS:224/5
DB-5	0.50	0.55	0.25	0.04	0.04	0.95	0.90	0.35	0.03	--	BSS:224/5
DB-6	0.56	0.70	0.25	0.03	0.03	1.10	1.75	0.55	0.10	--	DIN:1.2714





L) COLD HEADING QUALITY STEELS

SPECIFICATION

: :

CHEMICAL COMPOSITION %

GRADES	C	Mn	Si	P MAX	S MAX	Cr	Mo	B	Ti	Equivalent End Grades applicat:
SAE 1008	.10 MAX	.30 .50	.10 MAX	.030	.030	--	--	--	--	Nuts. Rivets stude
SAE1010	.08 .013	.30 .60	.10 MAX	.030	.030	--	--	--	--	C-10 (IS) Nute CK10 (DIN) extruder Roller, cycle Compenets-pedal -axel & hubcone screw
SAE 1012	.10 .15	.30 .60	.10 MAX	.030	.030	--	--	--	--	C-10 (IS) Rivets & CK-10 (din) Bolts En2 A,B,E
CQ 15	.12 .18	.30 .60	.10 .30	.040	.040	--	--	--	--	SAE 1015 Stude & CK 15 (DIN) BOLTS C-15 Mn 75 (IS)
SAE 1018	.15 .20	.60 .90	.10 MAX	.030	.030	--	--	--	--	EN20 SELF TAPPING H 111 (DIN) SCREW C-15 Mn 75 (IS)
SAE 1020	.18 .23	.30 .60	.15 .30	.040	.040	--	--	--	--	EN 3A,B,C Bolts CK22 (DIN) C-25 Mn 75 (IS)
MS (BQ)	.15 MAX	.60 MAX	.10 .20	0.040	.040	--	--	--	--	Commercial Quality bolts
SAE1541	.036 .44	1.35 1.65	.15 .30	.030	.030	--	--	--	--	IS-37C15 HIGH EN-19,A,B,C TENSILE DIN 36 Mn7 Fasteners

SAE 4140	.38 .43	.75 1.00	.10 .35	.030	.030	.80 1.1 0	.15 .25	--	--	IS-40Cr4Mo3 High EN-19,A,B,C Tensile DIN-42CrMo4 Fastener
10B21	.17 .23	.80 1.20	.15 .35	.030	.030	.20 MAX	--	.0005 .0030	--	Is-21c10bt HIGH Tensile Fastners
15B25A	.23 .28	.90 1.20	.15 .35	.030	.030	.20 MAX	--	.0005. .0030	--	

M) GAS SHIELDED ELECTRODE STEELS

SPECIFICATION

: :

CHEMICAL COMPOSITION %

GRADES	C	Mn	Si	P MAX	S MAX	Cr	Mo	Equivalent	Grades
<b>A. HIGH MAGANESE LOW SILICON GRADES</b>									
WJQ	.11 .16	1.80 2.20	.15 MAX	0.030	0.030	--	--	WRI, UM3	
<b>B. <u>HIGH MAGANESE HIGHT SILICON GRADE</u></b>									
WJM-1	.10 MAX	1.50 1.80	0.80 1.10	0.030	0.030	--	--	WR3	
WJM-II	.10 MAX	1.80 2.20	.70 1.10	.030	.030	--	--	WR4	
<b>C) <u>MOLYBDENUM GRADES</u></b>									
WR6	.10 .18	1.65 2.15	.15 MAX	.030	.030	--	.45	UM4	
WR7	0.13 MAX	.40 .70	.20 MAX	.025	.0250	--	.45 .65	---	
<b>D: <u>HIGH CHROMIUM GRADES</u></b>									
WLJ	0.35 .45	.90 1.10	.40 .60	.030	.030	1.00 1.20	--	--	

**DIMENSIONS** : : THE ABOVE SPECIAL QULALITY STEELS ARE GENRALLY AVALIBLE IN FORMS BARS, SQUARES, ROUND CORNERD SQUARES, HEXAGONS, OCTAGONS, WIRE RODS FLATS ETC  
SIZES : : MOST OF THE GENRAL STANDARD SIZES ARE PRODUCED AND SPECIAL SECTIONS/SIZES TO SUIT AN INDIVIDUAL REQUIRMENT CAN BE PRODUCED.

**NOTE** : : WE HAVE SELECTED ONLY THOSE SPECIAL STEEL PRODUCED WHO FOLLOW THE PRINCIPLES OF TOTAL QUALITY MANAGEMENT (TQM), SOME OF THE PRODUCERS ARE ALSO ACCREDITED BY ISO 9002 STATUS. THEREFORE THE OVERSEAS CUSTOMNERS MAY KINDLY SEND US THEIR ENIQUIRY AND WE SHALL ENDEAVOUR BEST TO ARRANGE A WORKABLE OFFER.

Thank  
You