PRIME STEEL PROCESSORS

TK STEELS
PRECISION • QUALITY • COMMITMENT

A MODEL UNIT
UNDER THE
UNITED NATIONS
**DEVELOPMENT PROJECT**

www.tksteels.com

# About Us

We produce the most economical and class-leading steel products, under our two verticals - TK STEELS & PRIME STEEL PROCESSORS with fully integrated steel manufacturing facilities. The facilities are spread over 22 acres and can boast of the most modern steel manufacturing facilities in the region. Our diverse product portfolio caters to every segment of the industry.

All multifarious grades falling under various Indian and international standards such as IS, BSS, DIN, GOST, AISI, SAE, ASTM, JIS, etc. as well as customer's own specifications are produced. Some of our specialties include grades such as carbon steels, case hardening steels, through-hardening steels, boron steel, vanadium steel, free cutting steel, spring steel, etc. The finished products find a wide application in FASTENERS, FORGING, ENGINEERING, AND VARIOUS OTHER SECTORS. We have made a name for ourselves in the past 42 years and have chartered an effective growth strategy which includes continuous expansion of our product portfolio through continuous in-house research and development. Accordingly, our Group has been chosen as a MODEL UNIT by the govt of India, under the UNITED NATIONS DEVELOPMENT PROJECT - GLOBAL ENVIRONMENT FACILITY. The group endeavour to strengthen India's industrial base by aiding infra structural development, through sustainable development approached and inclusive growth.

## OUR LEADERS

MR. LOKESH JAIN

MR. DEWAKAR JAIN

## OUR VERTICALS

TK STEELS™
PRECISION • QUALITY • COMMITMENT

PRIME STEEL PROCESSORS™

## CERTIFICAIONS

Certificate

Standard: ISO 9001:2015

Certificate Registration No.: 65 100 001 20039

Certificate Holder: T K Steel Rolling Mills Pvt. Ltd.
D -11, Phase - V,
Focal Point,
Ludhiana - 141010, Punjab, India

Scope: Manufacture of Hot Rolled Steel Round Bars, Hexagonal Bars and Round Cornered Square (RCS) Bars.

Validity: The certificate is valid from 2020-10-13 until 2023-10-13

IAF

TÜVRheinland®

TÜVRheinland CERTIFIED

ISO 9001:2015

www.tuv.com
ID 9000008632

# PRODUCTS

## TK STEELS

HEX BAR
(17mm – 78mm)


ROUND BAR
(12mm – 140mm)

SQUARE BAR/RCS
(30mm – 125mm)


ANNEALED &
STRAIGHTENED BARS

## PRIME STEEL PROCESSORS

INGOTS & BILLETS


ROUND BAR
(12mm – 140mm)

Wire Rods/Coil Weight
(6mm- 28mm)

# GALERY

# GRADE LIST WITH CHEMICAL COMPOSITIONS

## CARBON STEEL

| Sr. No. | Grade Name | C% | Mn% | Si% | S% | P% | Cr% | Ni% | Mo% | V% | B% | ASE ROOLED HARDNESS (BHN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 15C8 | 0.10/0.20 | 0.60/0.90 | 0.15/0.35 | 0.00/0.05 | 0.050MAX | – | – | – | – | – | 130-150 |
| 2. | 35C8 | 0.30-0.40 | 0.60-0.90 | 0.15-0.35 | 0.050max | 0.050max | – | – | – | – | – | 170-200 |
| 3. | C-20 | 0.15 -0.25 | 0.60/0.90 | 0.05/.035 | 0.05 MAX | 0.05 MAX | – | – | – | – | – | 130-150 |
| 4. | C-30 | 0.25/0.35 | 0.60/0.90 | 0.05/0.35 | 0.05MAX | 0.05MAX | – | – | – | – | – | 160-190 |
| 5. | C-35 | 0.30/0.40 | 0.60/0.90 | 0.05/0.35 | 0.05MAX | 0.05MAX | – | – | – | – | – | 170-200 |
| 6. | C-40 | 0.35/0.45 | 0.60/0.90 | 0.05/0.35 | 0.05MAX | 0.05MAX | – | – | – | – | – | 170-210 |
| 7. | C-45 | 0.40/0.50 | 0.60/0.90 | 0.15/0.35 | 0.050MAX | 0.050MAX | – | – | – | – | – | 180-210 |
| 8. | C-50 | 0.45-0.55 | 0.60-0.90 | 0.15-0.35 | 0.05MAX | 0.05MAX | – | – | – | – | – | 180-220 |
| 9. | EN-8 | 0.35/0.45 | 0.60/1.00 | 0.10-0.35 | 0.05MAX | 0.05MAX | – | – | – | – | – | 170-200 |
| 10. | EN8D | 0.40-0.45 | 0.70-0.90 | 0.10-0.35 | 0.05MAX | 0.05MAX | – | – | – | – | – | 180-210 |
| 11. | EN-9 | 0.50-0.60 | 0.50-0.80 | 0.15-0.35 | 0.05MAX | 0.050MAX | – | – | – | – | – | 180-230 |
| 12. | EN-32B | 0.10 – 0.18 | 0.60/1.00 | 0.05/0.35 | 0.05MAX | 0.05MAX | – | – | – | – | – | 130-160 |
| 13. | SAE1008 | 0.00/0.10 | 0.30/0.50 | 0.00/0.10 | 0.00/0.05 | 0.00/0.04 | – | – | – | – | – | 120-150 |
| 14. | SAE-1010 | 0.08 – 0.13 | 0.30/0.60 | 0.05/.035 | 0.035 max | 0.035 max | – | – | – | – | – | 120-140 |
| 15. | SAE-1018 | 0.15 – 0.20 | 0.60/0.90 | 0.15/0.35 | 0.035 max | 0.035 max | – | – | – | – | – | 130-160 |
| 16. | SAE1020 | 0.18/0.23 | 0.30/0.60 | 0.15/0.35 | 0.00/0.05 | 0.00/0.04 | – | – | – | – | – | 120-150 |
| 17. | SAE1025 | 0.22/0.28 | 0.30/0.60 | 0.15/0.35 | 0.00/0.05 | 0.00/0.04 | – | – | – | – | – | 130-160 |
| 18. | SAE1040 | 0.37/0.44 | 0.60/0.90 | 0.15/0.35 | 0.00/0.05 | 0.00/0.04 | – | – | – | – | – | 170-200 |
| 19. | SAE1045 | 0.43/0.50 | 0.60/0.90 | 0.15/0.35 | 0.00/0.05 | 0.00/0.04 | – | – | – | – | – | 170-220 |
| 20. | SAE1050 | 0.48/0.55 | 0.60/0.90 | 0.15/0.35 | 0.00/0.05 | 0.00/0.04 | – | – | – | – | – | 180-220 |
| 21. | ASTM-105 | 0.35MAX | 0.60/1.00 | 0.10/0.35 | 0.50MAX | 0.40MAX | – | – | – | – | – | 130-180 |

## CARBON MANGANESE STEEL

| Sr. No. | Grade Name | C% | Mn% | Si% | S% | P% | Cr% | Ni% | Mo% | V% | B% | ASE ROOLED HARDNESS (BHN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 22. | 20Mn2 | 0.18-0.24 | 1.30-1.70 | 0.10-0.35 | 0.035 max | 0.035 max | – | – | – | – | – | 140-170 |
| 23. | 27Mn2 | 0.22-0.32 | 1.30-1.70 | 0.10-0.35 | 0.035 max | 0.035 max | – | – | – | – | – | 150-180 |
| 24. | EN-15 | 0.30 – 0.40 | 1.30/1.70 | 0.10/0.35 | 0.035MAX | 0.035MAX | – | – | – | – | – | 180-220 |
| 25. | SAE-1541 | 0.38-0.43 | 1.30/1.70 | 0.10/0.35 | 0.035MAX | 0.035MAX | – | – | – | – | – | 190-230 |
| 26. | SAE-1524 | 0.19-0.25 | 1.35-1.65 | 0.15-0.35 | 0.035 max | 0.035 max | – | – | – | – | – | 180-220 |
| 27. | ST-52.3 | 0.16/0.22 | 1.30/1.65 | 0.15/0.35 | 0.035MAX | 0.035MAX | – | – | – | – | – | 190-220 |

## CASE HARDENING STEELS

| Sr. No. | Grade Name | C% | Mn% | Si% | S% | P% | Cr% | Ni% | Mo% | V% | B% | ASE ROOLED HARDNESS (BHN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28. | 16MnCr5 | 0.14-0.19 | 1.00-1.30 | 0.10-0.40 | 0.035max | 0.035max | 0.80-1.10 | - | - | – | – | 170-190 |
| 29. | 20MNCR5 | 0.17-0.22 | 1.10-1.40 | 0.15-0.40 | 0.035MAX | 0.035MAX | 1.00-1.30 | - | - | – | – | 170-210 |
| 30. | 15CR3 | 0.12-0.18 | 0.40-0.60 | 0.15-0.40 | 0.035 max | 0.035 max | 0.40-0.70 | - | - | – | – | 150-170 |
| 31. | SAE-8617 | 0.15-0.20 | 0.70-0.90 | 0.15-0.35 | 0.035MAX | 0.035MAX | 0.40-0.60 | 0.40-0.70 | 0.15-0.25 | – | – | 160-200 |
| 32. | SAE-8620 | 0.18-0.23 | 0.70-0.90 | 0.15-0.35 | 0.035MAX | 0.035MAX | 0.40-0.60 | 0.40-0.70 | 0.15-0.25 | – | – | 165-210 |
| 33. | EN-351 | 0.10-0.20 | 0.60/1.00 | 0.15-0.035 | 0.035MAX | 0.035MAX | 0.40-0.80 | 0.60-1.00 | 0.10MAX | – | – | 170-200 |
| 34. | EN-353 | 0.20 max | 0.60/1.00 | 0.05/.035 | 0.035MAX | 0.035MAX | 0.75/1.25 | 1.00/1.50 | 0.08/0.15 | – | – | 180-215 |

## BALL BEARING STEEL

| Sr. No. | Grade Name | C% | Mn% | Si% | S% | P% | Cr% | Ni% | Mo% | V% | B% | ASE ROOLED HARDNESS (BHN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 35. | EN-31 | 0.90-1.20 | 0.30-0.75 | 0.15/0.35 | 0.035MAX | 0.035MAX | 1.00/1.60 | – | – | – | – | 290-340 |
| 36. | SAE-52100 | 0.98 – 1.10 | 0.25/0.45 | 0.15/0.30 | 0.025 max | 0.025 max | 1.30/1.60 | – | – | – | – | 290-340 |

## FREE/SEMI FREE CUTTING STEEL

| Sr. No. | Grade Name | C% | Mn% | Si% | S% | P% | Cr% | Ni% | Mo% | V% | B% | ASE ROOLED HARDNESS (BHN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 37. | EN-1A | 0.07/0.15 | 0.80/1.20 | 0.10 max | 0.20/0.30 | 0.07 max | – | – | – | – | – | 130-140 |
| 38. | EN15AM | 0.30-0.40 | 1.30-1.70 | 0.25MAX | 0.020/0.20 | 0.06 | – | – | – | – | – | 180-230 |
| 39. | EN-8M | 0.35-0.45 | 1.00-1.30 | 0.25max | 0.12/0.20 | 0.06 | – | – | – | – | – | 170-200 |

## OIL HARDENING

| Sr. No. | Grade Name | C% | Mn% | Si% | S% | P% | Cr% | Ni% | Mo% | V% | B% | ASE ROOLED HARDNESS (BHN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40. | 40CR4 | 0.38 – 0.44 | 0.60/0.90 | 0.15-0.35 | 0.035 max | 0.035 max | 0.90/1.20 | - | – | - | – | 230-255 |
| 41. | 41Cr4 | 0.38-0.45 | 0.60-0.90 | 0.15-0.35 | 0.035MAX | 0.035MAX | 0.90-1.20 | - | | - | – | 230-260 |
| 42. | 25CRMO4 | 0.24-0.29 | 0.50-0.90 | 0.15-0.40 | 0.035MAX | 0.035MAX | 0.90-1.20 | - | 0.15-0.30 | - | – | 240-260 |
| 43. | 31CR4 | 0.28-0.35 | 0.60-0.90 | 0.15-0.35 | 0.035 max | 0.035 max | 0.90-1.20 | | | | – | 220-250 |
| 44. | 42CrMo4 | 0.38 – 0.45 | 0.60/0.80 | 0.15/0.35 | 0.035 max | 0.035 max | 0.90/1.20 | - | 0.15/0.30 | - | – | 280-310 |
| 45. | SAE-4140 | 0.38 – 0.43 | 0.75/1.0 | 0.15-0.35 | 0.035 max | 0.035 max | 0.90/1.10 | - | 0.15/0.25 | - | – | 280-310 |
| 46. | SCM-435 | 0.33-0.38 | 0.60-0.90 | 0.15-0.35 | 0.035MAX | 0.035MAX | 0.90-1.20 | - | 0.15-0.30 | - | – | 260-290 |
| 47. | B16 | 0.36/0.47 | 0.45/0.70 | 0.15/0.35 | 0.035MAX | 0.035MAX | 0.80/1.15 | - | 0.50/0.65 | - | – | 250-280 |
| 48. | 31CRV3 | 0.28 – 0.35 | 0.40/0.60 | 0.25/0.40 | 0.035 max | 0.035 max | 0.40/0.70 | - | - | 0.07/0.12 | – | 190-230 |
| 49. | 34CR4 | 0.32-0.37 | 0.60-0.90 | 0.15-0.35 | 0.035MAX | 0.035MAX | 0.90-1.20 | - | - | - | – | 180-220 |
| 50. | EN-16 | 0.30-0.40 | 1.30-1.80 | 0.10-0.35 | 0.035MAX | 0.035MAX | | - | 0.20-0.35 | - | – | 210-235 |
| 51. | EN-18 | 0.35 – 0.45 | 0.60-0.90 | 0.10/0.35 | 0.035MAX | 0.035MAX | 0.85/1.15 | - | - | - | – | 230-260 |
| 52. | EN-19 | 0.35 – 0.45 | 0.50/0.80 | 0.10/0.35 | 0.035MAX | 0.035MAX | 0.90-1.20 | - | 0.20-0.35 | - | – | 290-320 |
| 53. | EN-24 | 0.35 – 0.45 | 0.45/0.70 | 0.10/0.35 | 0.035MAX | 0.035MAX | 0.90/1.40 | 1.30/1.80 | 0.20/0.35 | - | – | 320-350 |
| 54. | EN-36C | 0.12 – 0.18 | 0.30/0.60 | 0.10/0.35 | 0.035MAX | 0.035MAX | 0.60/1.1 | 3.0/3.75 | 0.10/0.25 | - | – | 240-270 |
| 55. | EN-45A | 0.55 – 0.65 | 0.70/1.00 | 1.70/2.00 | 0.035 max | 0.035 max | - | - | - | - | – | 250-290 |
| 56. | SAE-4042 | 0.42 – 0.50 | 0.75/0.90 | 0.15/0.35 | 0.035 max | 0.035 max | -- | -- | -- | -- | – | 320-350 |
| 57. | EN-47 | 0.45 – 0.55 | 0.50/0.80 | 0.50 max | 0.040 max | 0.040 max | 0.80/1.2 | - | - | 0.15MAX | – | 260-310 |

## BORON STEEL

| Sr. No. | Grade Name | C% | Mn% | Si% | S% | P% | Cr% | Ni% | Mo% | V% | B% | ASE ROOLED HARDNESS (BHN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 58. | 10B-21 | 0.18/0.23 | 0.80/1.20 | 0.15/0.35 | 0.035MAX | 0.035MAX | – | – | – | – | 0.0005/0.003 | 130-150 |
| 59. | 15B-25 | 0.19/0.25 | 1.35/1.65 | 0.15/0.30 | 0.035MAX | 0.035MAX | – | – | – | – | 0.0005/0.003 | 150-180 |
| 60. | 27MNCRB5 | 0.24-0.30 | 1.10-1.40 | 0.40 max | 0.040 max | 0.035 max | 0.30-0.60 | – | – | – | 0.0008-0.0050 | 230-270 |
| 61. | 15B-41 | 0.38-0.43 | 1.30/1.70 | 0.10/0.35 | 0.035MAX | 0.035MAX | – | – | – | – | 0.0005/0.003 | 190-240 |

## AUSTENITIC STAINLESS STEEL

| Sr. No. | Grade Name | C% | Mn% | Si% | S% | P% | Cr% | Ni% | Mo% | V% | B% | ASE ROOLED HARDNESS (BHN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 62. | AISI-304 | 0.08MAX | 2.0MAX | 1.0MAX | 0.04MAX | 0.45MAX | 18.0-20.0 | 8.0-10.5 | – | – | – | – |
| 63. | AISI-316 | 0.08MAX | 2.0MAX | 1.0MAX | 0.04MAX | 0.45MAX | 16.0-18.0 | 10.0-14.0 | 2.0-3.0 | – | – | – |

# GRADE LIST WITH CHEMICAL COMPOSITIONS

## MARTENSITIC STAINLESS STEEL

| Sr. No. | Grade Name | C% | Mn% | Si% | S% | P% | Cr% | Ni% | Mo% | V% | B% | ASE ROOLED HARDNESS (BHN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 64. | AISI-410 | 0.15MAX | 1.00MAX | 1.00MAX | 0.30MAX | 0.40MAX | 11.5-13.5 | – | – | – | – | 330-370 |
| 65. | AISI-420 | 0.15MIN | 1.00MAX | 1.00MAX | 0.30MAX | 0.40MAX | 12.0-14.0 | – | – | – | – | 340-380 |
| 66. | AISI-431 | 0.20MAX | 1.00MAX | 1.00MAX | 0.30MAX | 0.40MAX | 15.0-17.0 | 1.25-2.50 | – | – | – | 380-410 |

## TOOL STEEL

| Sr. No. | Grade Name | C% | Mn% | Si% | S% | P% | Cr% | Ni% | Mo% | V% | B% | ASE ROOLED HARDNESS (BHN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 67. | H-11 | 0.32-0.42 | 0.30-0.40 | 0.85-1.15 | 0.035MAX | 0.035MAX | 4.75-5.25 | – | 1.25-1.75 | 0.30-0.50 | – | 340-380 |
| 68. | H-13 | 0.37-0.43 | 0.30-0.40 | 0.90-1.20 | 0.035MAX | 0.035MAX | 4.80-5.50 | – | 1.20-1.50 | 0.90-1.10 | – | 340-380 |
| 69. | D-2 | 1.4-1.6 | 0.30-0.50 | 0.30-0.50 | 0.035MAX | 0.035MAX | 11.0-13.0 | – | 0.70-1.20 | 0.70-0.80 | – | – |
| 70. | D-3 | 2.0-2.25 | 0.30MAX | 0.30MAX | 0.035MAX | 0.035MAX | 11.0-13.0 | – | – | – | – | – |

## HOT FORGING DIE BLOCKS

| Sr. No. | Grade Name | C% | Mn% | Si% | S% | P% | Cr% | Ni% | Mo% | V% | B% | ASE ROOLED HARDNESS (BHN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71. | DB-6 | 0.50-0.60 | 0.65-0.80 | 0.15-0.35 | 0.035MAX | 0.035MAX | 1.00-1.20 | 1.55-1.70 | 0.40-0.50 | 0.07-0.15 | – | – |

## BALL BEARING STEEL

| Sr. No. | Grade Name | C% | Mn% | Si% | S% | P% | Cr% | Ni% | Mo% | V% | B% | ASE ROOLED HARDNESS (BHN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 72. | SUP9 | 0.52-0.58 | 0.65/0.95 | 0.15/0.35 | 0.030MAX | 0.030MAX | 0.65/0.95 | – | – | – | – | 200-240 |
| 73. | SUP11 | 0.48-0.53 | 0.75/1.00 | 0.15/0.30 | 0.035 max | 0.04 max | 0.40-0.60 | | | | 0.0005-0.003 | 230-260 |

ALL OTHER GRADES AS PER CUSTOMERS SPECIFICATIONS ARE ALSO MANUFACTURED.

# THE EFFECTS OF ALLOYING ELEMENTS ON THE PROPERTIES OF STEELS

| Alloying element | Mechanical Properties | | | | | | | | | | | | | | | Magnetic Properties | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Hardness | Strength | Yield Point | Elnogation | Reduction of Area | Impact Value | Elasticity | High Temp Stability | Cooling Rate | Carbide Formation | resistance to wear | Forgeability | Machineability | Scaling | Nitrability | Resistance to corrosion | Hysteresis | Permeability | Coercive Force | Remanence | Loss of Watt |
| Silicon | ↑ | ↑ | ↑↑ | ↓ | ~ | ↓ | ↑↑↑ | ↑ | ↓ | ↓ | ↓↓↓ | ↓ | ↓ | ↓ | ↓ | – | ↓↓ | ↑↑ | ↓↓ | – | |
| Manganese in pearlitic steels | ↑ | ↑ | ↑ | ~ | ~ | ~ | ↑ | ~ | ↑ | ~ | ↓↓ | ↑ | ↓ | ~ | ~ | – | | | | | |
| Manganese in austenitic steels | ↓↓↓ | ↑ | ↓ | ↑↑ | ~ | ~ | ~ | ~ | ↑↑ | ~ | – | ↓↓↓ | ↓↓↓ | ↓↓ | | – | not magnetic | | | | |
| Chromium | ↑↑ | ↑↑ | ↑↑ | ↓ | ↓ | ↓ | ↑ | ↑ | ↓↓↓ | ↑↑ | ↑ | ↓ | ~ | ↓↓↓ | ↑↑ | ↑↑↑ | | | ↑ | ↑↑ | |
| Nickel in pearlitic steels | ↑ | ↑ | ↑ | ~ | ~ | ~ | ~ | ↑ | ↓↓ | ~ | ↓↓ | ↓ | ↓ | ↓ | – | – | | | ↑↑ | ↑↑ | |
| Nickel in austenitic steels | ↓↓ | ↑ | ↓ | ↑↑↑ | ↑↑↓ | ↑↑↑ | ~ | ↑↑↑ | ↓↓ | ~ | ~ | ↓↓↓ | ↓↓↓ | ↓↓ | – | ↑↑ | not magnetic | | | | |
| Aluminium | – | – | – | – | ↓ | ↓ | ~ | ~ | ~ | ~ | ~ | ↓↓ | ~ | ↓↓ | ↑↑↑ | – | | | ↑↑ | ↑↑ | |
| Tungsten | ↑ | ↑ | ↑ | ↓ | ↓ | ~ | ~ | ↑↑↑ | ↓↓ | ↑↑ | ↑↑↑ | ↓↓ | ↓↓ | ↓↓ | ↑ | – | | | ↑↑↑ | ↑↑↑ | |
| Vanadium | ↑ | ↑ | ↑ | ~ | ~ | ↑ | ↑ | ↑↑ | ↓↓ | ↑↑↑↑ | | ↑ | ~ | ↓ | ↑ | ↑ | | | | | |
| Cobalt | ↑ | ↑ | ↑ | ↓ | ↓ | ↓ | ~ | | | | ↑↑↑ | ↓ | ~ | ↓ | – | – | | ↑↑ | ↑↑↑ | ↑↑↑ | |
| Molybdenum | ↑ | ↑ | ↑ | ↓ | ↓ | ↑ | ~ | ↑↑ | ↓↓ | ↑↑↑ | ↑↑ | ↓ | ↓ | ↑↑ | ↑↑ | – | | | ↑ | | |
| Copper | ↑ | ↑ | ↑↑ | ~ | ~ | ~ | – | ↑ | – | – | – | ↓↓↓ | ~ | ~ | – | ↑ | | | | | |
| Sulphur | – | – | – | ↓ | ↓ | ↓ | – | – | – | – | – | ↓↓↓ | ↑↑↑ | – | – | ↓ | | | | | |
| Phosphorous | ↑ | ↑ | ↑ | ↓ | ↓ | ↓↓↓ | – | – | – | – | – | ↓ | ↑↑ | – | – | – | | | | | |

↑ = Increase ↓ = Reduction ~ = Contant ~ = Not characteristic or unknown effect Several at arrows = More intensive

## TK Steels

**Office :** D-11, Phase V, Focal Point,
Ludhiana Punjab - 141010

**Works :** P.O: Jandiali, Budhewal Road,
Chandigarh Road, Ludhiana 141112

Contact : 0161-2670218,2671990
Mobile : +91 9781406106 / 7 / 8
Email : info@tksteels.com
Web : www.tksteels.com

## Prime Steel Processors

P.O: Jandiali, Budhewal Road,
Chandigarh Road, Ludhiana 141412

Mobile : +919781406125 / 35
+9197813 06162
Email : sales@primesteels.in
info@primesteels.in