

GAZETI LA SERIKALI Na. 719 la tarehe 9/12/2022

**SHERIA YA PETROLI,
(SURA YA 392)**

NOTISI

(Imetolewa chini ya kifungu cha 128)

NOTISI YA KIBALI CHA UJENZI WA BOMBA LA MAFUTA GHAFI LA AFRIKA
MASHARIKI KWA KAMPUNI YA EACOP YA MWAKA 2022

- Jina 1. Notisi hii itajulikana kama Notisi ya Kibali cha Ujenzi wa Bomba la Mafuta Ghafi la Afrika Mashariki kwa Kampuni ya EACOP ya Mwaka 2022.
- Tafsiri 2. Katika Notisi hii, isipokuwa kama muktadha utahitaji vinginevyo-
“Sheria” maana yake ni Sheria ya Mafuta ya Petroli;
“mwombaji” maana yake ni Kampuni ya EACOP Limited, S.L.P 23139, Dar es Salaam;
“Mamlaka” maana yake ni Mamlaka ya Udhhibiti wa Huduma za Nishati na Maji iliyoanzishwa chini ya Sheria ya Mamlaka ya Udhhibiti wa Huduma za Nishati na Maji;
- Sura ya 414 “kibali cha ujenzi” maana yake ni kibali kilichotolewa na Mamlaka kwa mujibu wa kifungu cha 128(1) cha Sheria ya Petroli;
- Sura ya 392 “mfumo wa bomba la mafuta la EACOP” maana yake ni mfumo wa bomba la kusafirisha mafuta ghafi nje ya nchi linalotarajiwa kujengwa kutoka eneo la Kabaale, nchini Uganda hadi eneo la kuhifadhia na kusafirisha mafuta ghafi nje ya nchi, katika eneo la Chongoleani, katika jiji la Tanga – Tanzania, na utajumuisha miundombinu itakayojengwa kwenye mkuza na eneo la Chongoleani ambayo ni pamoja na bomba la kusafirisha mafuta, vituo vya

kusukuma mafuta, vituo vya kupasha joto mafuta, vituo vya kupunguza msukumo wa mafuta na matenki ya kuhifadhia mafuta ghafi, gati na mfumo wa kupakia mafuta kwenye meli eneo la Chongoleani mkoani Tanga;

“HGA” maana yake ni Mkataba kati ya Serikali ya Jamhuri ya Muungano wa Tanzania na Kampuni ya EACOP kwa ajili ya utekelezaji wa Mradi wa Bomba la Mafuta Ghafi.

Utoaji wa
kibali cha
ujenzi

3. Mwombaji anapewa kibali cha ujenzi wa mfumo wa bomba la kusafirisha mafuta ghafi likiwemo bomba la mafuta ghafi la urefu wa kilomita 1147 katika mkuza wenye upana wa mita 30 kutoka Kijiji cha Mtukula mkoani Kagera hadi Chongoleani mkoani Tanga, vituo vya kusukuma mafuta, vituo vya kupasha joto mafuta, vituo vya kupunguza msukumo wa mafuta na matenki ya kuhifadhia mafuta ghafi, gati na mfumo wa kupakia mafuta kwenye meli eneo la Chongoleani mkoani Tanga, kwa kuzingatia masharti yafuatayo:

- (a) mfumo wa bomba la mafuta ghafi la EACOP utajengwa kwa mujibu wa viwango vya kitaifa na kimataifa vilivyoainishwa katika Jedwali;
- (b) bomba la mafuta ghafi litajengwa angalau mita 8 kutoka kwenye mpaka wa mkuza;
- (c) kuwekwa alama za kuonesha mipaka ya mkuza, alama zilizosimamishwa kuonesha eneo bomba lilipolazwa na bomba zilizounganishwa na bomba la kusafirishia mafuta ghafi la EACOP kwa ajili ya kusaidia bomba hilo kupumua;
- (d) alama zilizosimamishwa kuonesha eneo bomba lilipolazwa zitapakwa rangi ya njano. Alama hizo zinatakiwa kuwa na vibao vyenye alama za tahadhari, maelezo ya tahadhari na namba za simu za dharura. Herufi katika vibao vya tahadhari ziandikwe kwa rangi nyeupe na neno “Hatari” au “Onyo” kwa rangi nyeusi kwenye kibati cha njano. Maelezo ya tahadhari yaandikwe kwa lugha ya Kiswahili na Kiingereza;
- (e) umbali kati ya alama zilizosimamishwa

- kuonesha eneo bomba lilipolazwa utakuwa mita (1000m). Hata hivyo, katika maeneo yenye watu wengi umbali kati ya alama hizo unatakiwa kuwa mita (100m);
- (f) bomba linatakiwa kuzungushiwa utepe wenye alama za tahadhari kwa mujibu wa kanuni bora za tasnia ya petroli;
 - (g) kuwekwa alama zilizosimamishwa kila upande yaani mwanzo na mwisho kwa maeneo ambayo bomba linakatiza barabara, reli, mto na daraja;
 - (h) kuweka valvu pande zote mbili yaani mwanzo na mwisho kwa maeneo ambayo bomba linakatiza maeneo nyeti kwa masuala ya mazingira kama mito na mabwawa, maeneo yenye tetemeko la ardhi, barabara kuu na reli;
 - (i) kuwekwa kwa mifumo ya kulinda ubora wa bomba ikiwemo mfumo wa kulinda bomba kuharibiwa na kutu, valvu za kupunguza shinikizo kwenye bomba, valvu za kufunga inapotokea tatizo au wakati wa matengenezo, geji za kupima shinikizo, eneo na mpaka wa mkuza kuchungwa ipasavyo, mfumo wa kugundua ikiwa bomba litavuja, mfumo wa kusafisha na kufuatilia unene wa bomba na mfumo ya mawasiliano yenye ufanisi;
 - (j) vituo vya kusukuma mafuta ghafi na kupunguza kiwango cha msukumo vitakuwa na kukidhi mambo yafuatayo:
 - (i) eneo la kituo linatakiwa kuzungushiwa uzio;
 - (ii) eneo la kituo linatakiwa kusakafiwa kwa zege na liwe na mifereji ambayo imeunganishwa na chemba ya kutenganisha mafuta na maji;
 - (iii) umbali wa usalama kati ya vifaa ndani ya kituo unatakiwa kuzingatia viwango na kanuni bora za tasnia ya petroli;
 - (iv) tenki la kuhifadhia mafuta ghafi litajengwa ndani ya bandi. Bandi itakuwa na ujazo wa angalau asilimia 110 ya uwezo wa tenki kubwa zaidi

- katika eneo la bandi au asilimia 25 ya ujazo wa jumla wa matenki yote ndani ya bandi. Uzajo ulio mkubwa uzingatiwe. Bandi utasakafiwa na zege, na kuwekewa mifereji iliyounganishwa na chemba ya kutenganisha mafuta na maji;
- (v) kutakuwa na mfumo wa kuzima moto kwa mujibu wa kiwango kilichoidhinishwa; na
- (vi) kutakuwa na alama za tahadhari za usalama zilizo wazi na zinazoonekana katika kituo chote;
- (k) bohari la kuhifadhi mafuta na gati la kupokea meli kwa kwa ajili ya kupakia mafuta kwenye meli yanatakiwa kukidhi mambo yafuatayo:
- (i) bohari la kuhifadhi mafuta ghafi linatakiwa kujengwa kwa kufuata viwango vya kitaifa na kimataifa;
- (ii) mchoro wa bohari la kuhifadhi mafuta unatakiwa kukidhi viwango vya usalama wa umbali kati ya miundombinu katika bohari na maeneo jirani kwa kuzingatia viwango na kanuni bora za tasnia ya petroli;
- (iii) kunatakiwa kuwa na ukuta kuzunguka matenki uliojengwa kwa zege na kuwe na ngazi za kutosha ili kuwezesha watu kuingia na kutoka ndani ya eneo matenki;
- (iv) urefu wa ukuta kuzunguka matenki unatakiwa usizidi mita 1.8;
- (v) bandi itakuwa na ujazo wa angalau asilimia 110 ya uwezo wa tenki kubwa zaidi katika eneo la bandi au asilimia 25 ya ujazo wa jumla wa matenki yote ndani ya bandi. Uzajo ulio mkubwa uzingatiwe;
- (vi) eneo la matenki, yaani eneo la bandi, lisakafiwe na zege na kuwe na mifereji iliyounganishwa na chemba ya kutenganisha mafuta na maji ambayo iko nje ya ukuta wa bandi;

Sura ya 340

- (vii) chemba ya kutenganisha mafuta na maji inatakiwa kusanifiwa vizuri na kujengwa nje ya ukuta wa bandi;
- (viii) chemba ya kutenganisha mafuta na maji inatakiwa kuwa na valvu ambayo itakuwa imefungwa wakati wote na itafunguliwa na muhusika maalum;
- (ix) yawekwe maelezo ya namna chemba ya kutenganisha mafuta na maji inavyotakiwa kufanyiwa kazi;
- (x) tenki linapaswa kuandikwa taarifa muhimu kuhusu tenki hilo zikiwemo ukinzani wa ardhi kupitisha umeme kwa eneo lilipojengwa tenki, tarehe ya kukamilika kwa ujenzi wa tenki, tarehe uhakiki wa vipimo vya ujazo wa tenki ulipofanyika, nambari ya tenki, ujazo wa tenki na mafuta yatakayohifadhiwa kwenye tenki hilo;
- (xi) matenki na mita zinatakiwa kufanyiwa uhakiki wa vipimo vya ujazo kwa kuzingatia Sheria ya Vipimo;
- (xii) miundombinu ya kuweka pampu kwa ajili ya kusukuma mafuta kutoka kwenye tenki inapaswa kusanifiwa na kujengwa vizuri ili mafuta yakimwagika wakati wa uendeshaji yasisambae na kuwe na mifereji iliyounganishwa na chemba ya kutenganisha mafuta na maji;
- (xiii) miundombinu ya kuweka pampu inatakiwa kujengwa nje ya ukuta unaozunguka matenki;
- (xiv) kuwekwa *bonding points* kwenye kila tenki na miundombinu ya kuweka pampu;
- (xv) kuwekwa vifaa vya kutosha vya kuzima moto ikiwemo:
 - (aa) maji ya kutosha ya kuzima moto;
 - (bb) pampu zinaendeshwa na injini inayotumia dizeli kwa ajili kuzima moto;

- (cc) kengele za kuashiria tahadhari kukiwa na ajali ya moto au dalili za moto kutokea;
- (dd) pampu ya kuhakikisha msukumo wa maji ya kuzimia moto upo katika kiwango kinachotakiwa;
- (ee) uwepo wa povu na mfumo wa kuzima moto kwa kutumia povu;
- (ff) ndoo za mchanga pamoja na mitungi ya kuzima moto ya za kutosha;
- (gg) mabomba ya kutosha ya kupitisha maji ya kuzima moto kuzunguka maeneo yote; na
- (hh) bomba za maji ya kuzima moto kuzunguka matenki;
- (xvi) kuwepo kwa barabara za magari zilizojengwa vizuri, zenye alama stahiki za barabara, zisozo na mashimo, zenye urahisi wa kubadili muelekeo na sehemu kutoka nje ikiwa kuna dharura;
- (xvii) kuwepo kwa vifaa ambavyo si rahisi kusababisha cheche za moto ambavyo vitafungwa kwenye maeneo ambayo kutakuwa na mvuke wa mafuta wa kiwango cha juu;
- (xviii) mabomba yanapaswa kupakwa rangi kama ifuatavyo:
 - (aa) bomba za mafuta ghafi – mistari ya rangi nyeusi;
 - (bb) bomba za kupitisha maji ya kuzima moto – rangi nyekundu;
 - (cc) mfumo wa povu – rangi ya njano; na
 - (dd) mfumo wa gesi ya nitrojeni – rangi ya kijani au nyeupe;

- (xix) eneo la bohari linapaswa kuwa katika hali ya usafi na mpangilio mzuri; na
- (xx) eneo la bohari linapaswa kuzungushiwa uzio mzuri na angalau njia mbili za kutoka wakati wa dharura;
- (l) gati kwa ajili ya kupokea meli na kupakia mafuta kwenye meli linatakiwa kukidhi mambo yafuatayo:
 - (i) kuwepo kwa mfumo wa kuzima moto;
 - (ii) kuwepo na hatua za tahadhari kwa ajili ya kukabiliana iwapo itatokea mafuta kumwagika kwa kuzingatia kanuni bora za tasnia ya petroli;
 - (iii) kuwepo na mfumo wa kukusanya mvuke wakati wa kupakia mafuta kwenye meli;
 - (iv) kuwepo na miundombinu ya kuwezesha magari kufika sehemu meli zimefunga endapo ikitokea dharura;
 - (v) kuwepo na umbali wa kutosha kati ya miundombinu ya gati na miundombinu ya bohari la kuhifadhi mafuta iliyo nchi kavu.

Kuzingatia
masharti ya
ushirikishwaji
wa wazawa
kwenye
mradi
Sura ya 392

4. Mmiliki wa kibali cha ujenzi wa bomba la mafuta ghafi la Afrika Mashariki na wakandarasi wote watazingatia matakwa ya ushiriki wa watanzania katika nyanja za ajira, mafunzo, uhaulishaji wa teknolojia na manunuzi ya bidhaa na huduma kwa mujibu wa Mkataba wa HGA; sheria za Tanzania; na Mpango wa ushirikishaji wa Watanzania kama ulivyoidhinishwa na Mamlaka kwa ajili ya kipindi cha ujenzi wa Mradi.

Notisi ya
mwanzo

5. Mmiliki wa kibali hiki cha ujenzi ataitaarifu Mamlaka juu ya kuanza kwa ujenzi wa bomba la mafuta ghafi la Afrika Mashariki ndani ya kipindi cha siku thelathini kabla ya kuanza kwa ujenzi.

Upatikanaji
wa vibali
vingine

6. Mmiliki wa kibali cha ujenzi atahakikisha kwamba wakati wa ujenzi, kampuni inapata-

- (a) vibali kutoka katika taasisi za Serikali zinazohusika kwa ajili ya kupitisha bomba la

mafuta ghafi kwenye miundombinu ambayo tayari ipo kama vile barabara, reli, mito, mabomba ya kusambaza maji, njia za TANESCO zenye msongo mkubwa wa umeme na nyaya za mawasiliano, na vibali vinapaswa kuwasilishwa wakati wa maombi ya leseni ya uendeshaaji; na

- (b) makubaliano na Mamlaka ya Usimamizi wa Bandari Tanzania ya kukodisha eneo la kujenga bohari la mafuta ghafi na gati katika eneo la bandari la Chongoleani, Tanga kabla ya kuanza ujenzi wa miundombinu hiyo.

Kuisha kwa
kibali cha
ujenzi

7. Kibali cha ujenzi kitakoma au kuisha muda wake endapo ujenzi wa bomba la mafuta ghafi la Afrika Mashariki hautaanza ndani ya miezi ishirini na nne tangu tarehe ya kutolewa kwa kibali hiki.

JEDWALI

(Limetengenezwa chini ya aya ya 3(a))

VIWANGO VITAKAVYOTUMIKA NA MFUMO WA BOMBA LA MAFUTA GHAFI
LA AFRIKA MASHARIKI (EACOP)

API Standards	
SPEC Q1 (9th Ed, 2013)	Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry
SPEC 6D (24TH Ed, 2014)	Specification for Pipeline and Piping Valves
STD 6DX (1ST Ed, 2012)	Petroleum and natural gas industries - Mechanical integrity and sizing of actuators and mounting kits for pipeline valves
SPEC 6FA (3RD Ed, 2011)	Specification for Fire Test for Valves
SPEC 6FD (1ST Ed, 2013)	Specification for Fire Test for Check Valves
SPEC 12D (11TH Ed, 2008)	Specification for Field Welded Tanks for Storage of Production Liquids
SPEC 12F (12TH Ed, 2008)	Specification for Shop Welded Tanks for Storage of Production Liquids
SPEC 12K (8TH Ed, 2008)	Specification for Indirect Type Oilfield Heaters
SPEC 20B (1ST Ed, 2013)	Open Die Shaped Forgings for Use in the Petroleum and Natural Gas Industry
STD 520 PT I (9th Ed, 2014)	Sizing, Selection, and Installation of Pressure-relieving Devices in Refineries Part I - Sizing and Selection
STD 520 PT II (6TH Ed, 2015)	Sizing, Selection, and Installation of Pressure-relieving Devices in Refineries Part II - Installation
STD 521 (6TH Ed, 2014)	Pressure-Relieving and De-pressuring Systems
STD 526 (6TH Ed, 2009)	Flanged Steel Pressure-Relief Valves
STD 530 (7TH Ed, 2015)	Calculation of heater tube thickness in petroleum refineries
STD 541 (5TH Ed, 2014)	Squirrel Cage Induction Motors, 250 HP and Larger
STD 546 (3RD Ed, 2008)	Brushless Synchronous - Machines-500 kVA and Larger
STD 560 (5TH Ed, 2016)	Fired Heaters for General Refinery Service
STD 594 (7TH Ed, 2010)	Check Valves: Flanged, Lug, Wafer, and Butt-Welding
STD 598 (10TH Ed, 2016)	Valve Inspection and Testing
STD 599 (7TH Ed, 2013)	Metal Plug Valves - Flanged, Threaded and Welding Ends

*Notisi ya Kibali Cha Ujenzi wa Bomba la Mafuta Ghafi la Afrika Mashariki kwa
Kampuni ya Eacop*

Tangazo la Serikali Na. 719 (Linaendelea.)

STD 600 (13TH Ed, 2015)	Steel Gate Valves—Flanged and Butt-Welding Ends, Bolted Bonnets
STD 602 (10TH Ed, 2015)	Gate, Globe, and Check Valves for Sizes DN 100 (NPS 4) and Smaller for the Petroleum and Natural Gas Industries
STD 604 (4TH Ed, 1981)	Ductile Iron Gates Valves Flanged Ends
STD 607 (7TH Ed, 2016)	Fire Test for Quarter-turn Valves and Valves Equipped with Non-metallic Seats
STD 607 (7TH Ed, 2016)	Fire Test for Quarter-turn Valves and Valves Equipped with Non-metallic Seats - Seventh Edition
STD 608 (5TH Ed, 2012)	Metal Ball Valves—Flanged, Threaded, and Welding Ends
STD 609 (8TH Ed, 2016)	Butterfly Valves: Double-flanged, Lug- and Wafer-type
STD 610 (11TH Ed, 2010)	Centrifugal Pumps for General Refinery Service
STD 613 (5TH Ed, 2007)	Special Purpose Gear Units for Petroleum, Chemical and Gas Industry Services
STD 614 (5TH Ed, 2008)	Lubrication, Shaft-Sealing and Oil-Control Systems and Auxiliaries
STD 615 (1987)	Sound Control of Mechanical Equipment
STD 617 (8TH Ed, 2014)	Axial and Centrifugal Compressors and Expander-compressors for Petroleum, Chemical and Gas Industry Services
STD 619 (5TH Ed, 2010)	Rotary-Type Positive Displacement Compressors for Petroleum, Petrochemical and Natural Gas Industries
STD 620 (12TH Ed, 2013)	Design and Construction of Large, Welded, Low-pressure Storage Tanks
STD 623 (1ST Ed, 2013)	Steel Globe Valves - Flanged and Buttwelding Ends, Bolted Bonnets
STD 650 (12TH Ed, 2013)	Welded Steel Tanks for Oil Storage
STD 660 (9TH Ed, 2015)	Shell and Tube Heat Exchangers
STD 661 (7TH Ed, 2013)	Petroleum, Petrochemical, and Natural Gas Industries—Air-Cooled Heat Exchangers for General Refinery Service
STD 670 (5TH Ed, 2014)	Machinery Protection Systems
STD 671 (4TH Ed, 2010)	Special Purpose Couplings for Petroleum, Chemical and Gas Industry Services
STD 672 (4TH Ed, 2004)	Centrifugal Plant and Instrument Air Compressors
STD 674 (3RD Ed, 2016)	Positive Displacement Pumps - Reciprocating
STD 675 (3RD Ed, 2012)	Positive Displacement Pumps - Controlled Volume for Petroleum, Chemical, and Gas Industry Services
STD 677 (3RD, 2016)	General-Purpose Gear Units for Petroleum, Chemical and Gas Industry Services
STD 682 (4TH Ed, 2014)	Pumps – Shaft Sealing Systems for Centrifugal and Rotary Pumps

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Kampuni ya Eacop*

Tangazo la Serikali Na. 719 (Linaendelea.)

STD 1104 (21ST Ed, 2013)	Welding of Pipelines and Related Facilities
STD 1164 (2ND Ed, 2016)	Pipeline SCADA Security
STD 2000 (7Th Ed, 2014)	Venting Atmospheric and Low-Pressure Storage Tanks
STD 2015 (7TH Ed, 2014)	Requirements for Safe Entry and Cleaning of Petroleum Storage Tanks
STD 2610 (2ND Ed, 2010)	Design, Construction & Operation of Terminal and Tank Facilities

ASME Standards	
B1.1 (2008)	Unified Inch Screw Threads, UN and UNR Thread Form
B1.20.1 (2013)	Pipe Threads, General Purpose
B16.3 (2016)	Valves Flanged, Threaded and Welded
B16.5 (2013)	Pipe Flanges and Flanged Fittings
B16.9 (2012)	Factory Made Wrought Steel Butt Welding Fittings
B16.10 (2009)	Dimensions of Valves
B16.11 (2016)	Forged Fittings, Socket Welding and Threaded
B16.20 (2012)	Metallic Gaskets for Pipe Flanges
B16.25 (2012)	Butt welding Ends
B16.34 (2013)	Valves – Flanged, Welded and Threaded
B16.47 (2011)	Large Diameter Steel Flanges, NPS 26-60
B16.48 (2015)	Steel Line Blanks
B16.49 (2012)	Factory Made Wrought Steel Butt Welding Induction Bends
B18.2.1 (2012)	Head Bolts and Hex, Heavy Hex, Hex Flange, Lobed Head, and Lag Screws
B18.2.2 (2015)	Square and Hex Nuts
B31.3 (2016)	Process Piping – PRIMARY CODE
B31.4 (2016)	Pipeline Transportation Systems for Liquid Hydrocarbons – PRIMARY CODE
B36.10M (2015)	Welded and Seamless Wrought Steel Pipe
B36.19M (2015)	Stainless Steel Pipe
BPVC Section II – Part C (2015)	Specifications for Welding Rods, Electrodes, and Filler Metals - Materials
BPVC Section IX (2015)	Qualification Standard for Welding, Brazing & Fusing Procedures
BPVC Section V (2015)	Non-destructive Examination
BPVC Section VIII, Div. 1 & 2 (2015)	Rules for Construction of Pressure Vessels & Alternative Rules

ASTM Standards	
A20/A20M (2015)	Standard Specification for General Requirements for Steel Plates for Pressure Vessels
A36/A36M (2014)	Carbon Structural Steel

*Notisi ya Kibali Cha Ujenzi wa Bomba la Mafuta Ghafi la Afrika Mashariki kwa
Kampuni ya Eacop*

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A53/A53M (2012)	Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
A105/A105M (2014)	Forgings, Carbon Steel for Piping Components
A106/A106M (2015)	Seamless Carbon Steel Pipe for High-Temperature Service
A123/A123M (2015)	Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
A153/A153M REV A (2016)	Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
A182/A182M REV A (2016)	Forged or Rolled Alloy and Stainless-Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High-Temperature Service
A1064/A1064M (2017)	Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete
A193 (2012)	Standard Specification for Alloy-Steel and Stainless-Steel Bolting for High Temperature or High-Pressure Service and Other Special Purpose Applications
A194 (2015)	Carbon and Alloy Steel Nuts for Bolts for High-Pressure or High-Temperature Service, or Both
A216/A216M (2016)	Standard Specification for Steel Castings, Carbon, Suitable for Fusion Welding, for High-Temperature Service
A234 (1979)	Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and High-Temperature Service
A262 (2015)	Standard Practices for Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels
A264 (2012)	Specification for Stainless Chromium-Nickel Steel-Clad Plate
A265 (2012)	Standard Specification for Nickel and Nickel-Base Alloy-Clad Steel Plate
A270/A270M (2015)	Standard Specification for Seamless and Welded Austenitic and Ferritic/Austenitic Stainless-Steel Sanitary Tubing
A370 (2017)	Standard Testing Methods and Definitions for Mechanical Testing of Steel Products
A380 (1979)	Standard Practice for Cleaning, Descaling, and Passivation of Stainless Steel-Parts, Equipment, and Systems
A388/A388M REV A (2016)	Standard Practice for Ultrasonic Examination of Steel Forgings
A453 (1979)	Standard Specification for High-Temperature Bolting, with Expansion Coefficients Comparable to Austenitic Stainless Steels
A516 (1979)	Standard Specification for Pressure Vessel Plates, Carbon Steel, for Moderate and Lower Temperature Service

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A578/A578M (2007)	Standard Specification for Straight-Beam Ultrasonic Examination of Rolled Steel Plates for Special Applications
A615 (1979)	Deformed and Plain Carbon- Steel Bars for Concrete
A694 (2013)	Standard Specification for Carbon and Alloy Steel Forgings for Pipe Flanges, Fittings, Valves, and Parts for High-Pressure Transmission Service
A707/A7107M (2014)	Standard Specification for Forged Carbon and Alloy Steel Flanges for Low-Temperature Service
A923 (2014)	Standard Test Methods for Detecting Detrimental Inter Metallic Phase in Duplex Austenitic/Ferritic Stainless Steels
A961/A961M REV A (2016)	Standard Specification for Common Requirements for Steel Flanges, Forged Fittings, Valves, and Parts for Piping Applications
A991/A991M (2010)	Standard Test Method for Conducting Temperature Uniformity Surveys of Furnaces Used to Heat Treat Steel Products
A992/A992M (2011)	Standard Specification for Structural Steel Shapes
ANSI/AGMA 9003-B08 (2008)	Flexible Couplings - Keyless Fits
AHRI 560-2000 (2000)	Standard for Absorption Water Chilling and Water Heating Packages
ATEX 2014/34/UE (1ST. Ed., 2016)	European directive on the approximation of the laws of the Member State concerning equipment and protective systems
B633 (2015)	Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel
C33/C33M (2016)	Standard Test Method for Fine and coarse aggregates
C90 REV A (2016)	Load Bearing Concrete Masonry Units
C109 (2009)	Standard Test for Compressive Strength of Cement Mortars
C150/C150M (2017)	Standard Specification for Portland Cement
C165 (2012)	Standard Test Method for Measuring Compressive Properties of Thermal Insulations
C172/C172M REV A (2014)	Standard Practice for Sampling Freshly Mixed Concrete
C177 (2013)	Standard test method for steady-state heat flux measurement and thermal transmission properties by means of the guarded-hot-plate apparatus
C203 REV A (2005)	Standard Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation
C240 (2016)	Standard test methods of testing cellular glass insulation block
C303 (2016)	Standard Test Method for Dimensions and Density of Preformed Block and Board-Type Thermal

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C518 (2015)	Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
C552 (2016)	Standard specification for cellular glass thermal insulation
C570 (2000)	Standard Test Method for Water Absorption of Plastics
D445 (2017)	Standard Test method for kinetic Viscosity of Transparent and Opaque liquids (and calculation of Dynamic Viscosity)
D570 (2010)	Standard Test Method for Water Absorption of Plastics
D648 (2016)	Standard Test Method for Deflection Temperature of Plastics Under Flexural Load
D975 (2016)	Standard Specification for Diesel Fuel Oils
D1652 (2012)	Standard Test Methods for Epoxy Content of Epoxy Resins
D2105 (2014)	Standard Test Method for Longitudinal Tensile Properties of Reinforced Thermosetting Plastic Pipe and Tube
D2122 (2016)	Standard Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings
D2126 (2015)	Standard Test Method for Response of Rigid Cellular Plastics to Thermal and Humid Aging
D2143 (2015)	Standard Test Method for Cyclic Pressure - Strength of Reinforced, Thermosetting Plastic Pipe
D2196 (2015)	Standard Test Methods for Rheological Properties of Non-Newtonian Materials by Rotational (Brookfield type) Viscometer
D2310 (2012)	Standard Classification for Machine-Made "Fiberglass" (Glass-Fiber-Reinforced Thermosetting-Resin) Pipe
D2343 (2009)	Standard Test Method for Tensile Properties of Glass Fiber Strands, Yarns and Rovings Used in Reinforced Plastics
D2412 (2011)	Standard Test Method for Determination of External Loading Characteristics of Plastic Pipe by Parallel - Plate Loading
D2563 (2015)	Standard Practice for Classifying Visual Defects in Glass Reinforced Plastic Laminate Parts
D2583 (2013)	Standard Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor
D2584 (2011)	Standard Test Method for Ignition Loss of Cured Reinforced Resins
D2992 (2012)	Standard Practice for Obtaining Hydrostatic or Pressure Design Basis for "Fiberglass" (Glass-Fiber-Reinforced Thermosetting- Resin) Pipe and Fittings
D2996 (2015)	Standard Specification for Filament Wound

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	"Fiberglass" (Glass-Fiber-Reinforced Thermosetting- Resin) Pipe
D4057 (2012)	Standard Practice for Manual Sampling of Petroleum and Petroleum Products
D4060 (2014)	Standard Test method for abrasion resistance of organic coatings by the Taber abraser
D4285 (2012)	Standard Test Method for Indicating Oil or Water in Compressed Air
D4752 (2015)	Standard test method for measuring MEK resistance of ethyl silicate (inorganic) Zinc-rich primer by solvent rub
D4940 (2016)	Standard test method for conductimetric analysis of water-soluble ionic contamination of blasting abrasives
D5162 (2015)	Standard Practice for Discontinuity (Holiday) Testing of Nonconductive Protective Coating on Metallic Substrates
D6226 (2015)	Standard test method for open cell content of cellular rigid plastics
D7975 (2014)	2014 Test Method for Determination of Vapor Pressure of Crude Oil: VPCRx-F(Tm°C) (Manual Expansion Field Method)
D8003 (2015)	Standard Test Method for Determination of Light Hydrocarbons and Cut Point Intervals in Live Crude Oils and Condensates by Gas Chromatography
D8009 (2015)	Practice for Manual Piston Cylinder Sampling for Volatile Crude Oils, Condensates and Liquid Petroleum Products
E21 (2009)	Standard Test Methods for Elevated Temperature Tension Tests of Metallic Materials
E23 REV B (2016)	Standard Test Methods for Notched Bar Impact Testing of Metallic Materials
E45 (2013)	Standard Test Methods for Determining the Inclusion Content of Steel
E84 (2016)	Standard test method for surface burning characteristics of building materials
E94 (2010)	Standard Guide for Radiographic Examination
E112 (2013)	Standard Test Methods for Determining Average Grain Size
E136 REV A (2016)	Standard Test Method for Behaviour of Materials in a Vertical Tube Furnace at 750°C
E228 (2016)	Standard Test Method for Linear Thermal Expansion of Solid Materials with a Push-Rod Dilatometer
E384 (2016)	Standard Test Method for Knoop and Vickers Hardness of Materials
E562 (2011)	Standard Test Method for Determining Volume Fraction by Systematic Manual point Count
E709 (2015)	Standard Guide for Magnetic Particle Testing

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E747 (2010)	Standard Practice for Design, Manufacture and Material Grouping Classification of Wire Image Quality Indicators (IQI) Used for Radiology
E999 (2015)	Standard Guide for Controlling the Quality of Industrial Radiographic Film Processing
E1003 (2013)	Standard Practice for Hydrostatic Leak Testing
E1255 (2016)	Standard Practice for Radioscopy
E1411 (2016)	Standard Practice for Qualification of Radioscopic Systems
E1416 REV A (2016)	Standard Test Method for Radioscopic Examination of Weldments
E1647 (2016)	Standard Practice for Determining Contrast Sensitivity in Radioscopy
E2002 (2015)	Standard Practice for Determining Total Image Unsharpness in Radiology
E2597 (2014)	Standard Practice for Manufacturing Characterization of Digital Detector Arrays
G39 (1999)	Standard Practice for Preparation and Use of Bent-Beam Stress-Corrosion Test Specimens
G97 (2013)	Standard Test Method for Laboratory Evaluation of Magnesium Sacrificial Anode Test Specimens for Underground Application
G153 (2013)	Standard Practice for Operating Enclosed Carbon Arc Light Apparatus for Exposure of Non-metallic Materials

IEC Standards	
IEC 27002 (2013)	Information Technology – Security techniques - Code of practice for information security management
IEC 60027 (4TH Ed, 1966)	Letter symbols to be used in electrical technology
IEC 60034 (Parts 1; 2-1; 2-2; 3; 5; 6; 9; 13; 14; 18; 25; 30) (12TH Ed, 2010)	Rotating Electrical Machines - (Parts 1; 2-1; 2-2; 3; 5; 6; 9; 13; 14; 18; 25; 30)
IEC 60034	Rotating Electrical Machines – Latest edition of relevant part
IEC 60038 (2008)	IEC Standard Voltage
IEC 60044-7 (1st Ed, 1999)	Instrument transformers - Part 7: Electronic voltage transformers
IEC 60044-8 (1st Ed, 2002)	Instrument transformers - Part 8: Electronic current transformers
IEC 60050 (All parts) (1985)	International Electrotechnical Vocabulary - All parts
IEC 60060 (All parts) (3RD Ed, 2010)	High Voltage test techniques - All parts
IEC 60068 (All parts) (7TH Ed, 2013)	Environmental testing - All parts

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IEC 60071 (Parts 1; 2) (8TH Ed, 2011)	Insulation co-ordination - Parts 1; 2
IEC 60072 (Parts 1; 2; 3) (6TH Ed, 2006)	Dimensions and output series for rotating electrical machines - Parts 1; 2; 3
IEC 60073 (6TH Ed, 2002)	Basic and safety principles for man-machine interface, marking and identification - Coding principles for indicators and actuators
IEC 60076 (All Parts) (3RD Ed, 2011)	Power transformers
IEC 60079-1 (7th Ed, 2014)	Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures
IEC 60079-2 (6th Ed, 2014)	Explosive atmospheres – Part 2: Equipment protection by pressurized enclosure
IEC 60079-7 5th Ed, 2015)	Explosive atmospheres – Part 7: Equipment protection by increased safety
IEC 60079-10-1 (2ND Ed, 2015)	Explosive atmospheres – Part 10-1: Classification of areas – Explosive gas atmospheres
IEC 60079-10-2 (2ND Ed, 2015)	Explosive atmospheres – Part 10-2: Classification of areas – Explosive dust atmospheres
IEC 60079-11 (6th Ed, 2011)	Explosive atmospheres – Part 11: Equipment protection by intrinsic safety
IEC 60079-14 (5TH Ed, 2013)	Explosive atmospheres - Part 14: Electrical Installation Design, selection and erection
IEC 60079-15 (4th Ed, 2010)	Explosive atmospheres – Part 15: Equipment protection by type of protection
IEC 60079-16 (1ST Ed, 1990)	Electrical Apparatus for explosive gas atmospheres part 16. Artificial ventilation for the protection of analyzer (s) houses
IEC 60079-17 (5th Ed, 2013)	Explosive atmospheres – Part 17: Electrical installations inspection and maintenance
IEC 60079-20-1 (1ST Ed, 2010)	Explosive atmospheres – Part 20-1: Material characteristics for gas and vapour classification – Test methods and data
IEC 60079	Explosive atmospheres – Latest edition of relevant parts
IEC 60085 (4TH Ed, 2007)	Electrical insulation - Thermal evaluation and designation
IEC 60096-0-1 (Ed. 3.1, 2017)	Radio frequency cables
IEC 60099-4 (3RD Ed, 2014)	Surge Arresters - Parts 4: Metal-oxide surge arresters without gaps for a.c. systems
IEC 60227-102:2001+AMD:2013	High-voltage switchgear and controlgear - Part 102: Alternating current disconnectors and earthing switches
IEC 60137 (6TH Ed, 2008)	Insulating bushings for alternating voltages above 1000 V
IEC 60146 (All Parts) (4TH Ed, 2009)	Semiconductor convertors - General requirements and line commutated convertors. (All Parts)
IEC 60204-1	Safety of machinery - Electrical equipment of

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(6TH Ed, 2016)	machines - Part 1: General requirements
IEC 60214-(Parts1; 2)	Tap Changers - Parts 1; 2.
IEC 60227-3 (1997)	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 3: Non-sheathed cables for fixed wiring
IEC 60228 (3RD Ed., 2001)	Conductors of Insulated Cables
IEC 60255 (All parts)	Electrical relays - All parts. Note: all parts except 12 and 13 withdrawn
IEC 60269-1 (Ed. 4.2, 2014) IEC 602692 (Ed. 5.1, 2016) IEC 60269-3 Ed. 4.1, 2013)	Low voltage fuses - All parts
IEC 60270 (Ed. 3.1, 2015)	High-voltage test techniques - Partial discharge measurements
IEC 60282-1 (2014)	High voltage fuses - Part 1: Current-limiting fuses
IEC 60296 (4TH Ed., 2012)	Fluids for electrotechnical applications - Unused mineral insulating oils for transformers and switchgear
IEC 60297-3-101 (2004)	Basic dimensions of front panels, subracks, chassis, racks and cabinets
IEC 60300-1 (3rd Ed, 2014)	Dependability management - Part 1: Guidance for management and application
IEC 60331-21 (Ed. 1.0, 1999)	Tests for electric cables under fire conditions - Circuit integrity - Part 21: Procedures and requirements - Cables of rated voltage up to and including 0,6/1,0 kV
IEC 60332-2-1 (Ed. 1.0, 2004) IEC 60332-3-22 (Ed. 1.1, 2009)	Tests on electric and optical fibre cables under fire conditions - (Parts 2-1; 3-22):
IEC 60364 (2005)	Electrical installations of buildings - All parts
IEC 60376 (2005)	Specification of technical grade sulfur hexafluoride (SF6) for use in electrical equipment
IEC 60381-1 (1st Ed, 1978)	Analogue signals for process control systems. Part 1: Direct current signals
IEC 60381-2 (2nd Ed, 1982)	Analogue signals for process control systems. Part 2: Direct voltage signals
IEC 60445 (5TH Ed., 2010)	Basic and safety principles for man-machine interface, marking and identification - Identification of equipment terminals, conductors' terminations, and conductors
IEC 60502-1 V(2009) IEC 60502-2 (2014)	Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1,2 kV) up to 30 kV (Um = 36 kV) Parts 1 ; 2
IEC 60529 (Ed. 2.2, 2013)	Degrees of Protection provided by enclosures (IP Code)
IEC 60534 (2005)	Industrial-process control valves – Parts 2-1, 2-3, 3-1, 3-2, 4, 5, 8-3, 8-4
IEC 60584 (2013)	Thermocouples (all parts)
IEC TR 60616 (1978)	Terminal and tapping markings for power transformers

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IEC 60617 (1st Ed, 2012)	Graphical Symbols for diagrams
IEC 60622 (Ed. 3.0, 2002)	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Sealed nickel-cadmium prismatic rechargeable single cells.
IEC 60623 (Ed. 5.0, 2017)	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Vented nickel-cadmium prismatic rechargeable single cells
IEC 60644 (Ed. 2.0, 2009)	Specifications for high voltage fuse-links for motor circuit applications
IEC 60664-1 (Ed. 2.0, 2007)	Insulation coordination for equipment within low voltage systems -Part 1: principles, requirements and tests
IEC 60706-2 (2006) IEC 60706-3 (2006) IEC 60706-5 (2007)	Maintainability of equipment
IEC 60730-1 (Ed. 5.1, 2015)	Automatic electrical controls for household and similar use.
IEC 60751 (Ed. 2.0, 2008)	Industrial Platinum resistance thermometers and platinum temperature sensors.
IEC 60754 (2011)	Test on gases evolved during combustion of materials from cables
IEC TS 60815 (2008)	Selection and dimensioning of high-voltage insulators intended for use in polluted conditions
IEC 60865 (2011)	Short-circuit currents - Calculation of effects - Parts 1; 2
IEC 60871-1 (Ed. 4.0, 2014)	Shunt capacitors for a.c. power systems having a rated voltage above 1000 V - Part 1: General
IEC 60793	Optical fibers – Latest edition of relevant parts
IEC 60794	Optical fibre cables – Latest edition of relevant parts
IEC 60909-0 (Ed. 2.0, 2016) IEC TR 60909-1 (Ed. 2.0, 2002) IEC TR 60909-2 (Ed. 2.0, 2008) IEC 60909-3 (Ed. 3.0, 2002) IEC TR 60909-4 (Ed. 1.0, 2000)	Short-Circuit Current Calculation in 3 phase AC Systems - Parts 0; 1; 2; 3; 4
IEC 60947 (2014)	Low-voltage switchgear and controlgear
IEC 60993 (Ed. 1.0, 1989)	Electrolyte for vented nickel-cadmium cells
IEC 61000 (2016)	Electromagnetic Compatibility (EMC) – All Parts
IEC 61034-1 (2013) IEC 61034-2 (2013)	Measurement of smoke density of cables burning under defined conditions
IEC 61071 (Ed. 1.0, 2007)	Capacitors for power electronics
IEC 61099 (Ed. 2.0, 2010)	Insulating liquids - Specification for unused synthetic organic esters for electrical purposes
IEC 61111 (Ed. 2.0, 2009)	Live working - Electrical insulating matting
IEC 61131 (2003)	Programmable controllers - (All parts)

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IEC 61140 (Ed. 4.0, 2016)	Protection against electrical shock - Common aspects for installation and equipment
IEC 61158-3	Industrial communication networks - Fieldbus specifications – Part 3 – Latest edition of relevant subpart.
IEC 61285 (Ed. 3.0, 2015)	Industrial-process control - Safety of analyser houses
IEC 61293 (Ed. 1.0, 1994)	Marking of Electrical Equipment with Ratings Related to Electrical Supply - Safety Requirements
IEC 61378 -1 (2011) IEC 61378-2 (2001) IEC 61378-3 (2015)	Converter transformers - Parts 1,2,3
IEC 61439-1 (2011) IEC 61439-2 (2011) IEC 61439-3 (2012)	Low-voltage switchgear and control gear assemblies (Parts 1, 2; 3)
IEC 61482-2 (2009)	Thermal Effects of an Electrical Arc Event
IEC 61508 (2010) 1 TO 7	Functional Safety of Electrical/electronic/Programmable Electronic (E/E/EP) Safety Related Systems, parts 1 TO 7
IEC 61511 (2016)	Functional Safety - Safety Instrumented system for the process industry sector - all parts
IEC 61554 (1st Ed, 1999)	Panel Mounted Equipment – Electrical Measuring Instruments – Dimensions for Panel Mounting
IEC 61558	Safety of power transformers, power supplies, reactors and similar products – Latest edition of relevant parts.
IEC 61557-4 (2007)	Electrical safety in low voltage distribution systems up to 1 000 V a.c. and 1 500 V d.c. - Equipment for testing, measuring or monitoring of protective measures - Part 4: Resistance of earth connection and equipotential bonding
IEC 61641 (Ed. 3.0, 2014)	Enclosed low-voltage switch gear and control gear assemblies - Guide for testing under conditions of arcing due to internal fault
IEC 61643-11 (1st Ed, 2011)	Low-voltage surge protective devices - Part 11: Surge protective devices connected to low-voltage power systems - Requirements and test methods
IEC 61800 (1997)	Adjustable speed electrical power drive systems - Part 4: General requirements - Rating specifications for a.c. power drive systems above 1 000 V a.c. and not exceeding 35 kV (Parts 2; 4; 8)
IEC 61850 (2010)	Communication networks and systems for power utility automation - All parts
IEC 61869 (2007)	Instrument transformers - All parts
IEC 61869-2 (1st Ed, 2012)	Instrument transformers - Part 2: Additional requirements for current transformers
IEC 61869-5 (1st Ed, 2011)	Instrument transformers - Part 5: Additional requirements for capacitor voltage transformers

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IEC 61869	Intrumental transformers – Latest edition of relevant parts.
IEC 61892-7 (Ed. 3.0, 2014)	Mobile and fixed offshore units - Electrical installations - Part 7: Hazardous areas
IEC 61936-1 (Ed. 2.1, 2014)	Power installations exceeding 1 kV a.c. – Part 1: Common rules
IEC 62040 (2013)	Uninterruptible power systems (UPS) - All Parts
IEC 62061 (Ed. 1.2, 2015)	Safety of machinery - Functional safety of safety-related electrical, electronic and programmable electronic control systems
IEC/IEEE 60079-30-1 (1st Ed, 2015)	Explosive atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements
IEC/IEEE 60079-30-2 (1st Ed, 2015)	Explosive atmospheres - Part 30-2: Electrical resistance trace heating - Application guide for design, installation and maintenance
IEC 62155 (Ed. 1.0, 2003)	Hollow pressurized and unpressurized ceramic and glass insulators for use in electrical equipment with rated voltages greater than 1000 V
IEC 62259 (Ed. 1.0, 2003)	Secondary cells and batteries containing alkaline or other non-acid electrolytes-Nickel cadmium prismatic secondary single cells with partial gas recombination
IEC 62262 (Ed. 1.0, 2002)	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)
IEC 62271 (2011)	High-voltage switchgear and controlgear - All parts
IEC 62305-2	Protection against lightning - Part 2: Risk management
IEC 62402 (Ed. 1.0, 2007)	Obsolescence management - Application guide
IEC 62443 (2010)	Industrial communication networks. Network and system security – all parts
IEC 62535 (Ed. 1.0, 2008)	Insulating liquids - Test method for detection of potentially corrosive sulfur in used and unused insulating oil
IEC 62591 (ED. 2.0, 2016)	Industrial communication networks -Wireless communication network and communication profiles - Wireless Hart

ISO Standards	
ISO 254 (4TH Ed., 2011)	Belt drives - Pulleys - Quality, finish and balance
ISO 281 (2ND Ed., 2007)	Rolling bearings. Dynamic load ratings and rating life.
ISO 286-2 (2ND Ed., 2010)	Part 2 Tables of Standard Tolerance Grades and Limit Deviations for Holes and Shaft
ISO 717-1 (3rd Ed, 2013)	Acoustics – Rating of sound insulation in buildings and of building elements – Part 1: Airborne sound

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	insulation
ISO 834-1 (1999)	Fire resistance tests – Elements of building construction – Part 1: General requirements
ISO 898-1 (5TH Ed., 2013) ISO 898-2 (3RD Ed., 2012)	Mechanical properties of fasteners made of carbon steel and alloy steel – Parts 1; 2
ISO 1133-1 (1ST Ed., 2011)	Plastics – Determination of the melt-mass flow rate (MFR) and melt-volume flow rate (MVR) of thermoplastics – Part 1: Standard method
ISO 1182 (5TH Ed., 2010)	Reaction to fire tests for building products – Non-combustibility test
ISO 1183-1 (2ND Ed., 2012) ISOP 1183-2 (1ST Ed., 2004) ISO 1183-3 (1ST Ed., 1999)	Plastics — Methods for determining the density of non-cellular plastics
ISO 1217 (4TH Ed., 2009)	Displacement compressor – Acceptance Tests
ISO 21940-11 (1ST Ed., 2016)	Mechanical vibration – Balance quality requirements for rotors in a constant (rigid) state – Part 1: specification and verification of balance tolerances
ISO 2631-1 (2ND Ed., 1997)	Evaluation of human exposure to whole-body vibration
ISO 2808 (4TH Ed., 2007)	Paints and varnishes – Determination of film thickness
ISO 2811-1 (3RD Ed., 2016)	Paints and varnishes – Determination of density – Part 1: Pycnometer method
ISO 3008 (3RD Ed., 2007)	Fire resistance tests – Door and shutter assemblies
ISO 3046-1 (5TH Ed., 2002) ISO 3046-3 (3RD Ed., 2006) ISO 3046-4 (3RD Ed., 2009) ISO 3046-5 2ND Ed., 2001) ISO 3046-6 (3RD Ed., 1990)	Reciprocating internal combustion engines – Performances – Parts 1; 3; 4; 5; 6
ISO 3104 (2ND Ed., 1994)	Petroleum products — Transparent and opaque liquids — Determination of kinematic viscosity and calculation of dynamic viscosity
ISO 3170 (Ed. 2004)	Petroleum Liquids – Manual Sampling
ISO 3171 (Ed. 1999)	Petroleum Liquids - Automatic Pipeline Sampling
ISO 3452-1 (2ND Ed., 2013)	Non-destructive testing – Penetrant testing – Part 1: General principles
ISO 3744 (3RD Ed., 2010)	Acoustics – Determination of sound power levels of noise sources using sound pressure. Engineering method in an essentially free Field over a sound pressure. Engineering method in an essentially free Field over a reflecting plane.
ISO 3746 (3RD Ed., 2010)	Acoustics – Determination of sound power levels and sound energy levels of noise sources using sound pressure – Survey method using an enveloping measurement surface over a reflecting plane
ISO 3864-1 (2ND Ed., 2011)	Graphical Symbols – Safety Colours and Safety

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ISO 3864-3 (2ND Ed., 2012)	Signs (Parts 1 & 3)
ISO 4014 (4TH Ed., 2011)	Hexagon head bolts – Product grades A and B
ISO 4032 (4TH Ed., 2012)	Hexagon regular nuts (style 1) – Product grades A and B
ISO 4042 (2ND Ed., 1999)	Fasteners. Electroplated coatings.
ISO 4183 (3RD Ed., 1995)	Belt drives – Classical and narrow V-belts – Grooved pulleys (system based on datum width)
ISO 4628-1 (4TH Ed., 2016)	Paints and varnishes – Evaluation of degradation of coatings – Designation of quality and size defects and of intensity of uniform changes in appearance – Parts 1,2,3,4,5
ISO 4628-2 (3RD Ed., 2016)	
ISO 4628-3 (3RD Ed., 2016)	
ISO 4628-4 (3RD Ed., 2016)	
ISO 4628-5 (3RD Ed., 2016)	
ISO 5167-1 (2ND Ed., 2003)	Measurement of fluid flow by means of pressure differential devices inserted in circular cross section conduits running full
ISO 5168 (2ND Ed., 2005)	Measurement of fluid flow – Procedures for the evaluation of uncertainties
ISO 5455 (1ST Ed., 1979)	Technical Drawings – Scales
ISO 5457 (2ND Ed., 1999)	Technical Product Documentation – Sizes and layout of drawing sheets
ISO 6964 (1ST Ed., 1986)	Polyolefine pipes and fittings: Determination of carbon black content by calcination and pyrolysis: Test method and basic specification
ISO 7010 (2ND Ed., 2011)	Graphical Symbols – Safety Colours and Safety Signs – Safety Signs used in Workplace and Public Areas
ISO 7200 (2ND Ed., 2004)	Technical Product Documentation – Data Fields in title blocks and document headers
ISO 7240-1 (3RD Ed., 2014)	Fire Detection and Alarm Systems – Part 1: General and Definitions
ISO 7240-11 (2ND Ed., 2011)	Fire Detection and Alarm Systems – Part 11: Manual Call Points
ISO 8130-6 (1ST Ed., 1992)	Coating powders – Parts 6; 7; 13
ISO 8130-7 (1ST Ed., 1992)	
ISO 8130-13 (1ST Ed., 2001)	
ISO 8178-1 (2ND Ed., 2006)	Reciprocating internal combustion engines – Exhaust emission measurement – Parts 1; 3; 6
ISO 8178-3 (1ST Ed., 1994)	
ISO 8178-6 (3RD Ed., 2000)	
8301 (1ST Ed., 1991)	Thermal insulation — Determination of steady-state thermal resistance and related properties – Heat flow meter apparatus
ISO 8501-1 (2007)	Preparation of Steel Structures before application of paints and related products. Visual assessment of surface cleanliness – Parts 1; 3
ISO 8501-3 (2ND Ed., 2006)	
ISO 8501	Preparation of steel substrates before application of paints and related products -- Visual assessment of surface cleanliness – Latest edition of relevant parts.

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ISO 8502-3 (2ND Ed., 2017) ISO 8502-4 (2ND Ed., 2017) ISO 8502-6 (2ND Ed., 2006) ISO 8502-9 (1ST Ed., 1998)	Preparation of steel substructures before application of paints and related products - Tests for the assessment of Surface cleanliness - Parts 3,4,6,9.
ISO 8503-1 (2ND Ed., 2012) ISO 8503-2 (2ND Ed., 2012) ISO 8503-4 ND Ed., 2012)	Preparation of steel substructures before application of paints and related products - Surface roughness characteristics of blast cleaned steel substrates - Parts 1, 2, 4
ISO 8528-1 (2ND Ed., 2005) ISO 8528-2 (2ND Ed., 2005) ISO 8528-6 (2ND Ed., 2005)	Reciprocating internal combustion engine driven alternating current generating sets - Parts 1; 2; 6
ISO 8573-1 (3RD Ed., 2010)	Compressed air - Part 1 Contaminants and purity classes
ISO 9000 (4TH Ed., 2015)	Quality Management system - Fundamentals and vocabulary
ISO 9001 (5TH Ed., 2015)	Quality Management system - Requirements
ISO 9612 (2ND Ed., 2009)	Acoustics - Determination of Occupational Noise Exposure - Engineering Method
ISO 9712 (4TH Ed., 2012)	Non-destructive testing - Qualification and certification of NDT personnel
ISO 9906 (2ND Ed., 2012)	Rotodynamic pumps - Hydraulic performance acceptance tests - Grades 1 and 2
ISO TS 29001 (3RD Ed., 2010)	Petroleum, petrochemical and natural gas industries - Sector-specific quality management systems - Requirements for product and service supply organizations
ISO 10002 (2ND Ed., 2014)	Quality Management systems - Customer satisfaction - Guidelines for complaints handling in organizations
ISO 10005 (2ND Ed., 2005)	Quality Management systems - Guidelines for quality plans
ISO 10006 (2ND Ed., 2003)	Guidelines for Quality Management in projects
ISO 10418 (2nd Ed, 2003)	Petroleum and natural gas industries – Offshore production installations –Analysis, design, installation and testing of basic surface process safety systems
ISO 10438 (2007)	Petroleum, petrochemical and natural gas industries - Lubrication, shaft-sealing and oil-control systems and auxiliaries, (Parts 1; 2; 3; 4)
ISO 10441 (2ND Ed., 2007)	Petroleum and natural gas industries. Flexible couplings for mechanical power transmission. Special purpose applications.
ISO 10474 (2ND Ed., 2013)	Steel and steel products. Inspection documents.
ISO 10497 (3RD Ed., 2010)	Testing of Valves - Fire Type-testing Requirements
ISO 10684 (1ST Ed., 2008)	Fasteners - Hot dip galvanized coatings
ISO 10816-3 (2ND Ed., 2009)	Evaluation of machine vibration by measurements on non-rotating parts - (Parts 3; 6)
ISO 10931 (1ST ED., 2005)	Plastics piping systems for industrial applications

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	Poly (vinylidene fluoride) (PVDF) Specifications for Components and the systems
ISO 11064 ISO 11064-1 (Ed. 2000) ISO 11064-2 (Ed. 2000) ISO 11064-3 (Ed. 1999) ISO 11064-4 (Ed. 2013) ISO 11064-5 (Ed. 2008) ISO 11064-6 (Ed. 2005) ISO 11064-7 (Ed. 2006)	Ergonomic design of control centers Principles for the design of control centers Principles for the arrangement of control suites Control room layout Layout and dimensions of workstations Displays and controls Environmental requirements for control centres Principles for the evaluation of control centres
ISO 11124 (1993)	Preparation of steel substrates before application of paints and related products-Specifications for metallic blast-cleaning abrasives - All parts
ISO 11125 (1993)	Preparation of steel substrates before application of paints and related products-Test methods for metallic blast-cleaning abrasives - All parts
ISO 11357-1 (3RD Ed., 2016) ISO 11357-2 (2ND Ed., 2013) ISO 11357-3 (2ND Ed., 2011)	Plastics - Differential scanning calorimetry (DSC) - Parts 1; 2; 3
ISO 12499 (1ST Ed., 1999)	Industrial fans
ISO 12736 (1ST Ed., 2014)	Petroleum and natural gas industries-Wet thermal insulation coatings for pipelines, flowlines, equipment, and subsea structures
ISO 12944 (1998)	Paints and varnishes. Corrosion protection of steels structures by protective paint systems Parts 1; 2; 3; 4; 7; 8
ISO 12944	Paints and varnishes – Latest edition of relevant parts.
ISO 13702 (2nd Ed, 2015)	Petroleum and natural gas industries – Control and mitigation of fires and explosions on offshore production installations – Requirements and guidelines
ISO 14001 (3RD Ed., 2015)	Environmental management systems - Requirements with guidance for use
ISO 14120 (2ND Ed., 2015)	Safety of machinery - Guards - General requirements for the design and construction of fixed and movable guards
ISO 14122 (2016)	Safety of machinery - Permanent means of access to machinery - Parts 2; 3
ISO 14520 (3RD Ed., 2015)	Gaseous Fire-Extinguishing Systems - Physical Properties and System Design, Parts 12, 13, 14 and 15
ISO 14635-1 (1ST Ed., 2000)	Gears - FZG test procedures - Part 1: FZG test method A/8,3/90 for relative scuffing load-carrying capacity of oils
ISO 14692 (2002)	Petroleum and natural gas industries - Glass-reinforced plastics (GRP) piping - Parts 2; 3; 4
ISO 14713 (2017)	Zinc coatings - Guidelines and recommendations

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	for the protection against corrosion of iron and steel in structures – All Parts
ISO 14694 (1ST Ed., 2003)	Industrial fans. Specification for balance quality and vibration Levels
ISO 14896 (3RD Ed., 2009)	Plastics — Polyurethane raw materials — Determination of isocyanate content
ISO 15550 (2ND Ed., 2016)	Internal combustion engines - Determination and method for the measurement of engine power - General requirements
ISO 16135 (1ST Ed., 2006)	Industrial Valves - Ball Valves of Thermoplastic materials
ISO 16136 (1ST Ed., 2006)	Industrial Valves - Butterfly Valves of Thermoplastics materials
ISO 16137 (1ST Ed., 2006)	Industrial Valves - Check Valves of Thermoplastic materials
ISO 16138 (1ST Ed., 2006)	Industrial Valves - Diaphragm valves of Thermoplastic materials
ISO 16276 (2007)	Corrosion Protection of Steel Structures by protective paint systems - Assessment of and acceptance criteria for, the dry-film thickness of coating on rough surfaces - Parts 1; 2
ISO 16890-1 (1ST Ed., 2016)	Air filters for general ventilation — Part 1: Technical specifications, requirements and efficiency classification system based upon Particulate Matter (PM)
ISO 18553 (1ST Ed., 2007)	Method for the assessment of the degree of pigment or carbon black dispersion in polyolefin pipes, fittings and compounds
ISO 19900 (2nd Ed, 2013)	Petroleum and natural gas industries — General requirements for offshore structures
ISO 19901 suite	Petroleum and natural gas industries — Specific requirements for offshore structures — Parts 1,2,3,5,6.
ISO 19901-1 (2nd Ed, 2015) ISO 19901-2 (1st Ed, 2004) ISO 19901-3 (2nd Ed, 2014) ISO 19901-4 (2nd Ed, 2016) ISO 19901-5 (2nd Ed, 2016) ISO 19901-6 (1st Ed, 2011) ISO 19901-7 (2nd Ed, 2013) ISO 19901-8 (1st Ed, 2014)	Petroleum and natural gas industries – Specific requirements for offshore structures – Parts 1, 2, 3, 4, 5, 6, 7, 8
ISO 19011 (2ND Ed., 2011)	Guidelines for Quality and/or environmental management systems auditing
ISO 19115-1 (1ST Ed., 2014)	Geographic information - Metadata - Part 1: Fundamentals
ISO 19840 (2ND Ed., 2012)	Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Measurement of and acceptance criteria for, the dry

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	film thickness of coating on rough surfaces
ISO 20815 (2008)	Petroleum, petrochemical and natural gas industries - Production assurance and reliability management
ISO 21457 (1ST Ed., 2010)	Petroleum, petrochemical and natural gas industries - Materials selection and corrosion control for oil and gas production systems
ISO 21940-32 (1ST Ed., 2012)	Mechanical vibration - Rotor balancing - Part 32 Shaft and fitment key convention
ISO 22899-1 (1ST Ed., 2007)	Determination of the Resistance to Jet Fires of Passive Fire Protection Materials - Part 1: General Requirements
ISO 80000-1 (1ST Ed., 2009)	Quantities and units - Part 1 General
ISO 80079-36 (2016)	Explosive atmospheres — Part 36: Non-electrical equipment for explosive atmospheres — Basic method and requirements
BS 1377-1:2016	Methods of test for soils for civil engineering purposes. General requirements and sample preparation
BS 5839	Fire detection and fire alarm systems for buildings – Latest edition of relevant part
BS 5930:2015	Code of practice for ground investigations
BS 6349-1-1:2013	Maritime works. General. Code of practice for planning and design for operations
BS 6349-1-2:2016	Maritime works. Part 1-2: General - Code of practice for assessment of actions
BS 6349-1-3:2012	Maritime works. General. Code of practice for geotechnical design
BS 6349-1-4:2013	Maritime works. General. Code of practice for materials
BS 6349-2:2010	Maritime works. Code of practice for the design of quay walls, jetties and dolphins
BS 6349-4:2014	Maritime works. Code of practice for design of fendering and mooring systems
BS 6349-8:2007	Maritime structures. Code of practice for the design of Ro-Ro ramps, linkspans and walkways
BS 6391:2009	Specification for Non-Percolating Layflat Delivery Hoses and Hose Assemblies for Fire Fighting Purposes
BS 6739:2009	Code of practice for instrumentation in process control systems: installation design and practice
BS 7159 (1989)	Code of practice for design and construction of glass-reinforced plastics (GRP) piping systems for individual plants or sites
BS 7671:2008+A3:2015	Requirements for Electrical Installations IEE Wiring Regulations + Amendment No. 3
BS 7910 (2013)	Guide to methods for assessing the acceptability of flaws in metallic structures
BS 8500-1:2015+A1:2016	Concrete – Complementary British Standard to BS

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	EN 206-1 – Part 1: Method of specifying and guidance for the specifier + Amendment No. 1
BS 8500-2:2015+A1:2016	Concrete – Complementary British Standard to BS EN 206 Part 2: Specification for constituent materials and concrete + Amendment No. 1
BS EN 206:2013+A1:2016	Concrete – Specification, performance, production and conformity + Amendment No. 1
BS EN 671-1:2012	Fixed fire-fighting systems. Hose systems. Hose reels with semi-rigid hose
BS EN 837-2:1998	Pressure gauges Part 2. Selection and installation recommendations for pressure gauges
BS EN 1337	Structural bearings – Latest edition of relevant part.
BS EN 10056-1 (2017)	Structural steel equal and unequal leg angles - Part 1: Dimensions
EN 10210-2 (2006)	Hot finished structural hollow sections of non-alloy and fine grain steels - Part 2: Tolerances, dimensions and sectional properties
BS EN 10219-2 (2006)	Cold formed welded structural hollow sections of non-alloy and fine grain steels - Part 2: Tolerances, dimensions and sectional properties
BS EN 10045 (2007)	Charpy Impact Test on Metallic Materials
BS EN 60079-0:2012+A11:2013	Explosive atmospheres. Equipment. General requirements + Amendment No. 11
BS EN 60079-2:2014	Explosive Atmospheres: Equipment Protected by Pressurised Enclosure “p”
BS EN 60079-10-1:2015	Explosive atmospheres. Classification of areas. Explosive gas atmospheres
BS EN 196 (2016)	Methods for testing cement (10 parts)
BS EN 10002 (2007)	Metallic Materials - Tensile Testing
BS 812-2 (2014)	Testing aggregates. Methods for determination of density
BS EN 197-1 (2011)	Concrete. Specification, performance, production and conformity
BS EN 12350-2 (2009)	Testing fresh concrete. Slump-test
BS EN 12390-2 (2009)	Testing hardened concrete. Making and curing specimens for strength tests
BS EN 197-1 (2011)	Cement. Composition, specifications and conformity criteria for common cements
BS 812-109 (2016)	Testing aggregates. Methods for determination of moisture content
BS EN 933-1 (2012)	Tests for geometrical properties of aggregates. Determination of particle size distribution. Sieving method
BS 812-103.2 (2016)	Testing aggregates. Method for determination of particle size distribution. Sedimentation test
BS EN 933-3 (2012)	Tests for geometrical properties of aggregates. Determination of particle shape. Flakiness index
BS EN 1097-2 (2010)	Tests for mechanical and physical properties of

	aggregates. Methods for the determination of resistance to fragmentation
BS EN 1990 + NA (2002)	Eurocode - Basis of structural design + National Annex to BS EN 1990:2002
BS EN 1991-1-1 + NA (2002) BS EN 1991-1-2 + NA (2002) BS EN 1991-1-4+A1:2010 + NA (2005) BS EN 1991-1-5 + NA (2003) BS EN 1991-1-6 + NA (2005) BS EN 1991-1-7+A1:2014 + NA (2006) BS EN 1991-2 + NA (2003) BS EN 1991-3 (2003) BS EN 1991-3 + NA (2006)	Eurocode 1. Actions on structures + National Annex
BS EN 1992-1-1 + NA (2004) BS EN 1992-1-2 + NA (2004)	Eurocode 2: Design of concrete structures + National Annex
BS EN 1993-1-1+A1:2014 + NA (2005) BS EN 1993 – 1-2 + NA (2005) BS EN 1993-1-3 + NA (2006) BS EN 1993-1-4+A1:2015 + NA (2006) BS EN 1993-1-5 + NA (2006) BS EN 1993-1-6 (2007) BS EN 1993-1-7 (2007) BS EN 1993-1-8 + NA (2005) BS EN 1993-1-9 + NA (2005) BS EN 1993-1-10 + NA (2005) BS EN 1993-1-11 + NA (2006)	Eurocode 3. Design of steel structures + National Annex
BS EN 1993-1-12 + NA (2007)	Eurocode 3. Design of steel structures. Additional rules for the extension of EN 1993 up to steel grades S 700. + National Annex
BS EN 1993-2 + NA (2006)	Eurocode 3. Design of steel structures – Part 2: Steel Bridges. + National Annex
BS EN 1993-3-1 (2007) BS EN 1993-3-2 (2006) BS EN 1993-3-5 (2007) BS EN 1993-3-6 (2007)	Eurocode 3. Design of steel structures
BS EN 1993-5 + NA (2007)	Eurocode 3. Design of steel structures. Piling. + National Annex
BS EN 1993-6 + NA (2007)	Eurocode 3. Design of Steel Structures. Crane supporting structures. + National Annex
BS EN 1997-1+A1:2013 + NA (2004)	Eurocode 7. Geotechnical design. General rules. + National Annex

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BS EN 1997-2 + NA (2007)	Eurocode 7. Geotechnical design. Ground investigation and testing. + National Annex
BS EN 1998-1+A1:2013 (2004)	Eurocode 8. Design of structures for earthquake resistance. General rules, seismic actions and rules for buildings. + National Annex
BS EN 1998-4 + NA (2006)	Eurocode 8. Design of structures for earthquake resistance. Silos, tanks and pipelines. + National Annex.
BS EN 1998-5 + NA (2005)	Eurocode 8. Design of structures for earthquake resistance. Foundation, retaining structures and geotechnical aspects. + National Annex
BS EN 1998-6 + NA (2005)	Eurocode 8. Design of structures for earthquake resistance. Towers, masts and chimneys. + National Annex
BS 4449 (2005) +A3 (2016)	Steel for the reinforcement of concrete. Weldable reinforcing steel. Bar, coil and decoiled product. Specification
BS EN 10025-1,3,4 (2004)	Hot rolled products of structural steels
BS EN 10025:2004	Hot rolled products of structural steel – Parts 1, 2, 3, 4, 5,
BS EN 10025-6:2004+A1:2009	Hot rolled products of structural steels. Technical delivery conditions for flat products of high yield strength structural steels in the quenched and tempered condition + Amendment No. 1
BS EN 10080:2005	Steel for the reinforcement of concrete. Weldable reinforcing steel. General
BS EN 10210-1 (2006)	Hot finished structural hollow sections of non-alloy and fine grain steels
BS EN 10219-1:2006	Cold formed welded structural hollow sections of non-alloy and fine grain steels. Technical delivery requirements
BS EN 13670:2009	Execution of concrete structures
BS 7668 (2016)	Weldable structural steels. Hot finished structural hollow sections in weather resistant steels. Specification
BS EN 10029 (2010)	Hot-rolled steel plates 3 mm thick or above. Tolerances on dimensions and shape
BS EN ISO 1461 (2009)	Hot dip galvanized on fabricated iron and steel articles. – Specifications and test methods
BS EN 1011-2 (2001)	Welding. Recommendations for welding of metallic materials. Arc welding of ferritic steels
BS EN ISO 15614-1 (2004)	Specification and qualification of welding procedures for metallic materials. Welding procedure test. Arc and gas welding of steels and arc welding of nickel and nickel alloys
BS EN 287-1 (2011)	Qualification test of welders. Fusion welding. Steels
BS EN ISO 1461 (2009)	Hot dip galvanized coatings on fabricated iron and

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	steel articles. Specifications and test methods
BS 4190 (2014)	ISO metric black hexagon bolts, screws and nuts. Specification
BS EN 752-1 to 4 (1996)	Drain and Sewer systems outside Buildings
CPR 16E (1992)	Methods for the determination of possible damage (TNO "Green Book")
CSA Z245.20 (2014)	Plant-applied external fusion bond epoxy coating for steel pipe
CSA Z245.22 (2014)	Plant-applied external polyurethane foam insulation coating for steel pipe
CSWIP	Certification Scheme for Personnel
DIN 52913 (2002)	Testing of Static Gaskets for Flange Connections
DIN 7190-1 (2017)	Interference fits – Part 1: Calculation and design rules for cylindrical self-locking pressfits
DIN 7190-2 (2017) 2017	Interference fits – Part 2: Calculation and design rules for conical self-locking pressfits
DNV-OS-C101 (2011)	Design of Offshore Steel Structures, General (LRFD method)
DNV-OS-C201 (2011)	Structural design of offshore units (WSD method)
DNV-OS-C401 (2010)	Fabrication and testing of offshore structures
DNV-RP-B401 (2010)	Cathodic protection design.
DNV-RP-F118 (2010)	Pipe Girth Weld AUT System Qualification and Project Specific Procedure Validation
EN 197-1:2011	Cement – Part 1: Composition, specifications and conformity criteria for common cements
EN 10025-1 (2006) EN 10025-2 (2006) EN 10025-3 (2006) EN 10025-4 (2007) EN 10025-5 (2007) EN 10025-6 (2009)	Hot rolled products of structural steels - Parts 1; 2; 3; 4; 5; 6
EN 10027-1 (2017)	Designation systems for steels - Part 1: Steel names
EN 10160 (2000)	Ultrasonic testing of steel flat product of thickness equal or greater than 6 mm (reflection method)
EN 10164 (2007)	Steel products with improved deformation properties perpendicular to the surface of the product - Technical delivery conditions
EN 10204 (2006)	Metallic product - Types of inspection documents
EN 12087 (2013)	Thermal insulating products for building applications - Determination of long-term water absorption by immersion
EN 12089 (2013)	Thermal insulating products for building applications - Determination of bending behaviour
EN 12496 (2013)	Galvanic anodes for cathodic protection in seawater and saline mud
EN 12499 (2003)	Internal cathodic protection of metallic structures
EN 12735-1 (2016)	Copper and copper alloys - Seamless, round copper tubes for air conditioning and refrigeration – Parts

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	1; 2
EN 12825 (2002)	Raised access floors
EN 12954 (2001)	Cathodic protection of buried or immersed metallic structures - General principles and application for pipelines
EN 1347 (2007)	Thermal insulating products for building equipment and industrial installations - Determination of the coefficient of thermal expansion
EN 13501-1 (2010)	Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests
EN 13501-3 (2012)	Fire classification of Construction products and building elements - Part 3: Classification using Data from fire resistance tests on products and elements used in building service installations: fire resisting duct and fire dampers
EN 1363-1 (2015) EN 1363-2 (2000)	Fire resistance tests Part 1 and 2
EN 1366-2 (2015)	Fire resistance tests for service installations - Part 2: Fire dampers
EN 13831 (2008)	Closed expansion vessels with built in diaphragm for installation in water
EN 14175-3 (2004)	Fume cupboards Part 3: Type test methods
EN 14511 (2014)	Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling
EN 15650 (2010)	Ventilation for buildings - Fire dampers
EN 1604 (2013)	Thermal insulating products for building applications - Determination of dimensional stability under specified temperature and humidity conditions
EN 1609 (2013)	Thermal insulating products for building applications. Determination of short-term water absorption by partial immersion.
EN 1751 (2014)	Ventilation for buildings. Air terminal devices. Aerodynamic testing of dampers and valves
EN 1834-1 (2000)	Reciprocating internal combustion engines - Safety requirements for design and construction of engines for use in potentially explosive atmospheres - Part 1 Group II engines for use in flammable gas and vapour atmospheres
EN 1886 (2009)	Ventilation for buildings - Air handling units – Mechanical Performance
EN 1990 (2003)	Eurocode: Basis of structural design
EN 1991-1-1 (2003) EN 1993-1-2 (2004) EN 1993-1-3 (2004)	Eurocode 1: Actions on structures – All Parts
EN 1993-1-1 (2008)	Eurocode 3: Design of steel structures – All Parts

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EN 1993-1-2 (2016) EN 1993-1-3 (2012) EN 1993-1-4 (2012) EN 1993-1-5 (2011) EN 1993-1-6 (2013) EN 1993-1-7 (2013) EN 1993-1-8 (2011)	
EN 1998-1 (2011) EN 1998-2 (2012) EN 1998-3 (2012) EN 1998-5 (2011)	Eurocode 8: Design of structures for earthquake resistance – All Parts
EN 54 (2011)	Fire detection and fire alarm systems
EN 61000-3-2 (2014)	Electromagnetic compatibility (EMC) - Part 3-2
EN 826 (2013)	Thermal insulating products for building applications - Determination of compression behaviour
BS EN ISO 898	Mechanical properties of fasteners made of carbon steel and alloy steel – Latest edition of relevant parts.
BS EN ISO 1461:2009	Hot dip galvanized on fabricated iron and steel articles. – Specifications and test methods
BS EN ISO 5817:2014	Fusion welded joints in steel etc. – Quality levels for imperfections
BS EN ISO 13702:2015	Petroleum and Natural Gas Industries. Control and Mitigation of Fires and Explosions on Offshore Production Installations
BS EN ISO 15138:2007	Petroleum and Natural Gas Industries: Offshore Production Installations: Heating, Ventilation and Air Conditioning
BS EN ISO 15544:2010	Petroleum and Natural Gas Industries. Offshore Production Installations. Requirements and Guidelines for Emergency Response
BS EN ISO 12944:1998	Paints and varnishes. Corrosion protection of steel structures by protective paint systems – Parts 1, 2, 3, 4, 6, 7, 8
BS EN ISO 12944-5:2007	Paints and varnishes. Corrosion protection of steel structures by protective paint systems – Part 5 Protective paint systems
EN ISO 10456 (2012)	Building materials and products - Hygrothermal properties - Tabulated design values and procedures for determining declared and design thermal values
EN ISO 10893 (Parts 5;6) (2011)	Non-destructive testing of steel tubes - Parts 5; 6
EN ISO 13787 (2003)	Thermal insulation products for building equipment and industrial installations - Determination of declared thermal conductivity
EN ISO 15614-8 (2016)	Specification and qualification of welding procedures for metallic materials - Welding

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	procedure
EN-1011 (2010)	Welding - Recommendations for welding of metallic materials – All Parts
EN-1062 (2005)	Paints and varnishes - Coating materials and coating systems for exterior masonry and concrete
EN-1090-1 (2012) EN-1090-2 (2011)	Execution of steel structures and aluminium structures - Parts 1; 2 (including amendments)
BS EN 1090-2:2008	Execution of Steel Structures and Aluminium Structures. Technical Requirements for Steel Structures
EN-14305 (2013)	Thermal insulation products for building equipment and industrial installations - Factory made cellular glass products - Specification
EN-14399-1 (2016)	High-strength structural bolting assemblies for Preloading Part 1: General requirements
EN-14706 (2012)	Thermal insulating products for building equipment and industrial installations - Determination of maximum service temperature
EN-15048-1 (2008)	Non-preloaded structural bolting assemblies. Part 1: General requirements
EN-15112 (2008)	External cathodic protection of well casings
EN-50216 (2003)	Power transformers and reactors fittings
CEN EN 54-1:2011	Components of Automatic Fire Detection Systems – Part 1: Introduction
CEN EN 54-7:2000	Components of Automatic Fire Detection Systems – Part 7: Smoke detectors – Point detectors, using scattered light or ionization.
Energy Institute (2nd Ed., 2008)	Energy Institute, London – Guidelines (2008) for the avoidance of vibration induced fatigue in process pipework
NORSOK L-005 (2ND Ed., 2006)	Compact flanged connections
NORSOK M-650 (4TH Ed., 2015)	Qualification of manufacturers of special materials
NORSOK N-004 (Rev. 3, 2013)	Design of steel structures
PCN/GEN Appendix C4 (Issue 2, Rev. A., 2009)	Certification of personnel for ultrasonic time of flight diffraction testing of linear butt welds in ferritic steel

NACE Standards	
RP-0169 (2013)	Control of External Corrosion
SP-0196 (2015)	Galvanic Anode cathodic Protection of Internal Submerged Surfaces of Steel Water Storage Tanks
SP-0575 (1995, R 2007)	Internal Cathodic Protection (CP) System
SP-0286 (1997, R 2007)	Electrical Isolation of Cathodically Protected Pipelines

NFPA Standards	
NFPA 11 (2016)	Standard for Low-, Medium-, and High-Expansion Foam
NFPA 12 (2015)	Standard on Carbon Dioxide Extinguishing Systems
NFPA 13 (2016)	Standard for the Installation of Sprinkler Systems
NFPA 15 (2017)	Standard for Water Spray Fixed Systems for Fire Protection
NFPA 16 (2015)	Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems
NFPA 20 (2016)	Standard for the Installation of Stationary Pumps for Fire Protection -2013 Edition
NFPA 24 (2016)	Standard for the Installation of Private Fire Service Mains and Their Appurtenances
NFPA 25 (2017)	Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems
NFPA 30 (2015)	National Fire Protection Association, Flammable & Combustible Liquids
NFPA 37 (2015)	Installation & Use of Combustion Engines & Gas Turbines
NFPA 70 (2017)	National Electrical Codes
NFPA 72 (2016)	National Fire Alarm and Signalling Code
NFPA 85 ERTA 2 (2016)	Boiler and Combustion Systems Hazards code
NFPA 307 (2016)	Standard for the Construction and Fire Protection of Marine Terminals, Piers, and Wharves
NFPA 496 (2017)	Standard for Purged and Pressurized Enclosures for Electrical Equipment
NFPA 750 (2015)	Standard on Water Mist Fire Protection System
NFPA 2001 ERTA 2 (2015)	Standard on Clean Agent Fire Extinguishing Systems

MSS Standards	
SP-44 (2016)	Steel Pipeline Flanges
SP-55 (2011)	Quality Standard for Steel Castings for Valves, Flanges, Fittings and Other Piping Components - Visual Method for Evaluation of Surface Irregularities
SP-75 (2014)	High Test Wrought Butt Welding Fitting
SP-95 (2014)	Swage Nipples and Bull Plugs
SP-97 (2012)	Integrally reinforced forged branch outlet fittings - Socket welding, threaded and butt-welding ends

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PD Standards	
PD 5500:2015+A2:2016	Specification for Unfired Fusion Welded Pressure Vessels

PRCI Standards	
PR-227-9424 (1994)	Installation of Pipelines by Horizontal Directional Drilling

Dodoma
28 Novemba, 2022

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