# ALPHA STEEL PIPING SUPPLIES



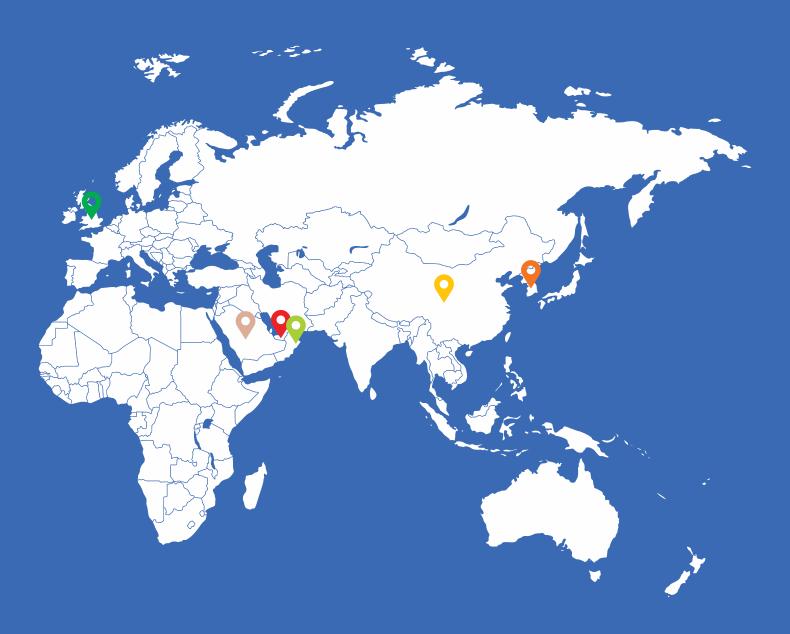
# UNPARALLELED PRACTICAL SUSTAINABLE

PIPES | FITTINGS | FLANGES | PLATES | VALVES | BOLTS |
DISMANTLING\EXPANSION JOINTS | GASKETS |
ENGINEERED PRODUCTS | PIPE FABRICATIONS | COATINGS & LININGS





# **OUR OFFICES**



- **UNITED ARAB EMIRATES**
- SAUDI ARABIA
- OMAN

- CHINA
- SOUTH KOREA
- UNITED KINGDOM



# **ABOUT US**

ASPS is a well-known name in Industrial Piping. We market, supply, and distribute piping Products and services to the Oil & Gas, Energy (Conventional Renewables), Chemical, Petrochemical, Water, and Utility sectors.



ASPS prioritizes quality and on-time delivery. Our company's primary commitment is to provide the best value by collaborating with clients and manufacturers from diverse industries.

ASPS is based in Dubai's Commercity free zone and has active bases throughout the Gulf Cooperation Council (GCC), China, United Kingdom, and South Korea.

We are primarily focused on providing high - quality products and services while expanding our market reach by constantly strengthening our product portfolio to deliver the best value for your money.



# **Vision**

We aspire to become the most dependable and innovative Piping Supplier for every EPC operating in the Middle East.



# **Mission**

- Supply to every Capital Project in the Middle East.
- To introduce and provide complete piping supply solutions to EPC'S.
- Develop a team of competent individuals in Supply Chain.
- To have the lowest service cost amongst our competitors.
- Create the highest value for our stakeholders.
- To achieve continuous sustainability in all our projects.



# **Values**

### **Equality**

By treating each client and employee with equal respect and fairness



### Consistency

Consistently perform every time with the same efficiency

### Accountability

Accepting complete responsibility to entrust ourselves to our client



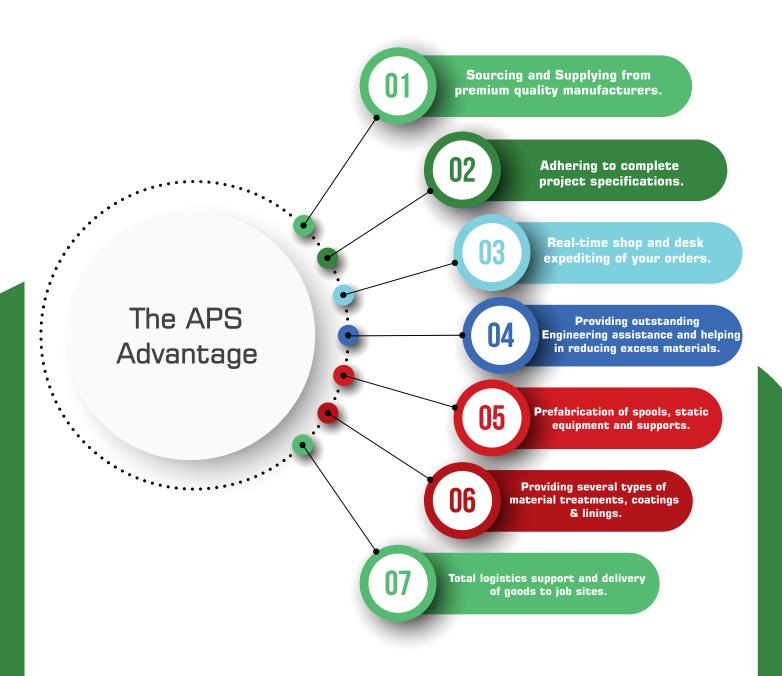
### **Highest Ethics**

Providing an honest service to clients.





# CUSTOMIZED PIPING SOLUTIONS FOR YOUR PROJECTS





# **EXPERTISE & EXPERIENCE**You can rely on

The backbone and the core strength of APS is its team of highly experienced professionals who have been working over the past four decades for some of the world's biggest organizations in the Energy Sector. This has equipped APS not only with the understandings of the best practices of the industries but also has given us the confidence to deliver as per any given stringent requirements.



Our experts know their market segment inside out. They remain abreast with the newest developments taking place in Piping Materials, Manufacturing processes, new Piping products, Quality control, administration, coordination, and Logistics.

Simultaneously, they have organized themselves to the demands of future developments and concepts in order to constantly add value to the supply chain and stay as the preferred choice of customers and manufacturers.

Our team of professionals at APS brings complete transparency to the Supply Chain by procuring the raw materials needed for material manufacturing to delivering the finished product to the consumer.

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On a macro level, we understand the various aspects of client requirement and at concentrated micro level, we work with selected and approved manufacturers of significance to the client. We work closely with our clients to comprehend their specific requirements clearly, liaison with various stages in talking the language of the customer to the manufacturer, thereby keeping the commitment and providing best Piping Solutions right from beginning till the end of the project.

APS is specialized at sourcing and supplying goods to fulfill the piping needs of any project, regardless of scale. We know the importance of meeting project deadlines and delivering on time. We adhere to delivery and manufacturing deadlines and provide fast, accurate, complete and honest reporting even in unfavorable conditions.

# PRODUCT PORTFOLIO

### **PIPES**

**CARBON STEEL** 

- 1/2" 24" Seamless
- 2" 120" Welded

AUSTENTIC STAINLESS STEEL

- 1/2" 24" Seamless
- 1" 80" Welded

**ALLOY STEEL** 

- 1/2" 24" Seamless
- 2" 120" Welded

DUPLEX /SUPER
DUPLEX STAINLESS STEEL

- 1/2" 8" Seamless
- 8" 80" Welded



## **FLANGES**

**CARBON STEEL** 

• 1/2" - 60" ( MSS Series )

**CARBON STEEL** 

• A & B for sizes 24" & above

DUPLEX STAINLESS STEEL

 ½" - 48" (MSS Series A & B for sizes 24" & above )

AUSTENETIC STAINLESS STEEL  ½" - 48" (MSS Series A & B for sizes 24" & above )



## **FITTINGS**

**FORGED** 

• 1/4" - 6" (Forged)

**REINFORCED FITTINGS** 

• 1/4" - 6" (Forged)

**WROUGHT-BW** 

• 1/4" - 24" (Seamless)

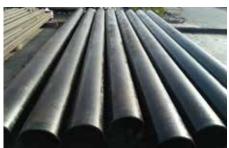
**WROUGHT-BW** 

• 26" - 120" (Welded)



# **PIPING**

| PRODUCT TYPE   | SIZE (RANGES)  | MATERIAL STANDARD / GRADES  |
|--|--|---|
| CARBON STEEL-  | ½" - 36" Seamless<br>2" - 120" Welded  | API 5L PSL-1/2 (B, X42, X52, X60, X65, X70, X80), ASTM A106/A53 Gr. A/B/C A333 Gr. 1/3/6/9 API 5L (B, X42, X52, X60, X65, X70, X80), A53 Gr. A/B/C, ASTM A671/672 (Gr. CC60, CC65, CC70) -CL 12, 22, 32, 42 |
| AUSTENTIC STAINLESS STEEL  | ½" - 24" Seamless<br>1" - 80" Welded   | ATSM A312 GR 304/304L, 316/316L, 321, 347, 904/904L<br>ASTM A358 GR 304/304L, 316/316L, 321, 347, 904/904L  |
| DUPLEX /SUPER DUPLEX<br>STAINLESS STEEL  | ½"- 8" (Seamless)<br>8"- 80"(Welded)   | ASTM A790 /ASTM A928 UNS<br>S31803/ S32205, UNS S32750/60   |
| HIGH ALLOYS<br>(Nickel and its Alloys, Copper Based Alloys<br>& Titanium)Low temperature | ½"- 24" (Seamless)<br>2"- 120"(Welded)   | A335 P1, P11, P12, P22, P5, P9, P91, P92<br>A691 1CR, 1 1/4CR, 2 1/4CR, 5CR, 9CR, 91  |
| CARBON STEEL-<br>Line Pipes Seamless/Welded (PSL1/2)<br>(PSL1/2)                         | ½" - 24" Seamless<br>1" - 24" ERW<br>24" - 120" SAW<br>(Longitudinal or Spiral<br>as per customer's requirement) | API 5L PSL-1/2 (B, X42, X52, X60, X65, X70, X80)  |
| CARBON STEEL-<br>Process Pipes Seamless/Welded   | ½" - 24" Seamless<br>1"- 24" ERW, 24" - 120" EFW   | A STM A106 GR A/B/C, ASTM A53 GR B,<br>A STM A672 GR C60/C65/C70-CL 12, 22, 32, 42  |
| CARBON STEEL-<br>Low temperature   | 1/4" - 24" Seamless 24" - 120" EFW   | ASTM A333 GR 6<br>ASTM A671 GR CC60 /CC65/CC70 CL 12, 22, 32, 42  |







# **FLANGES**



### PRODUCT TYPE

CARBON STEEL-High temp/Low temp

AUSTENETIC & DUPLEX STAINLESS STEEL

**ALLOY STEELS** 



### **SIZE (RANGES)**

½" - 60" (MSS Series A & B for sizes 24" & above), EN1092, AWWA C207, ASME SEC-VIII Div-1

½" - 48" (MSS Series A & B for sizes 24" & above)

Upto - 24"

### MATERIAL STANDARD / GRADES

ASTM A105/A350 LF2/LF6

ASTM A182 F304/304L, F316/316L, F321/ F347, F304H, F316H/F51/F53/F55

Low Alloys in Gr. F1/F9/F11/F91/F92 Nickel Based Alloys Copper Based Alloys



# **FITTINGS**



### PRODUCT TYPE

CS-FORGED/REINFORCED FITTINGS CS-WROUGHT-BW

### **SIZE (RANGES)**

½"- 6" (Forged) ½"- 24" (Seamless) 26"- 120" (Welded)

### MATERIAL STANDARD / GRADES

ASTM A105, A350 LF2,LF6, A182, F52, F9,F11, F22/F91/F92 ASTM A234 WPB/WPC, A420 WPL6 A860/MSS SP75--WPHY 42 WPHY 46 WPHY 52 WPHY 60 WPHY 65 WPHY 70 (WROUGHT FITTINGS)

STAINLESS STEEL-FORGED

1/4"-6"

ASTM A182 F304/304L, 316/316L, 904/904L

STAINLESS STEEL-WROUGHT-BW

Upto - 60"

ASTM A403 GR-304/304L, 316/316L, 321/321H & 904/904L.

ALLOYS/CS/SS/DSS/SDSS-HIGH TEMP/LOW TEMP Upto - 60"

ASTM A420 WP1, WP5, WP9, WP11, WP22, WP91, WP92 (Low Alloys), UNS 31803, 32750/60, 250 SM0, UNS N88020, UNS N6625, UNS N8825)

# **VALVES**

**GATE VALVE** 

- ½" 48"
- (CL 150 CL 2500)

**GLOBE VALVE** 

- ½" 24"
- (CL 150 CL 2500)

NON-RETURN (CHECK)

- ½" 48"
- (CL 150 CL 2500)

**BALL VALVE** 

- ½" 56"
- (CL 150 CL 2500)

**BUTTERFLY VALVE** 

- 3" 100"
- (CL 150 CL 900)

**PLUG VALVE** 

- ½" 36"
- (CL 150 CL 2500)

**SAFETY RELIEF VALVES** 

- ¾" 16"
- (CL 150 CL300)

**DIAPHRAGM VALVES** 

- 1/4" 12"
- (PN 0.6, 1.0, 1.6 & CL 150)



# **GATE VALVES**

### PRODUCT TYPE

BOLTED AND BONNET GATE VALVE:



### **SIZE (RANGES)**

Rating: # 150, Size: 1 ½"~48" Rating: # 300, Size: 1 ½"~48" Rating: # 600, Size: 2"~42" Rating: # 900~ #1500, Size: 2"~24"

### MATERIAL STANDARD / GRADES

WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M(316), CF3 (304L), CF3M (316L), CN7M (20 # alloy), Duplex(4A), Super Duplex (5A/6A), CW6MC (INC 625), CU5MCuC (INC 825) nickel alloy, Titanium& Monel Alloy

API, ANSI, ASME, MSS, BS, ISO & DIN.

PRESSURE SEAL GATE VALVE:



Rating: # 900~ # 2500, Size: 2"~24"

WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (20 # alloy), Duplex(4A), Super Duplex(5A/6A), CW6MC (INC 625), CU5MCuC (INC 825) nickel alloy, Titanium& Monel Alloy

API, ANSI, ASME, MSS, BS, ISO & DIN.

FORGED STEEL GATE VALVE:



Rating:# 150~# 1500, Size: ½"~2"

LF2,LF3, LF5, A105, F22, F316/316L, F304/304L, F91, 410,Duplex, Super Duplex, INC625,INC825, nickel alloy Titanium and Monel alloy.

API, ANSI, ASME, MSS, BS, ISO & DIN.

THROUGH CONDUIT & KNIFE EDGE GATE VALVE:



Rating: # 150~ # 300, Size: 2''~42''
Rating: # 600, Size: 2''~36''
Rating: # 900, Size: 2''~24''

Rating: # 1500, Size: 2"~10"

WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A) Super Duplex(5A), CW6MC (INC 625), CU5MCuC (INC 825) nickel alloy, Titanium& Monel Alloy

# **GATE VALVES**

### PRODUCT TYPE

POWERSTATION GATE VALVE



### SIZE (RANGES)

Rating: # 900 ~ # 2500, Size: 2''~24''

### **MATERIAL STANDARD / GRADES**

WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex(5A), CW6MC (INC 625), CU5MCuC (INC 825), Titanium& Monel Alloy

API, ANSI, ASME, MSS, BS, ISO & DIN.

# **GLOBE VALVES**

### PRODUCT TYPE

**GLOBE VALVE** 



### **SIZE (RANGES)**

Rating:# 150 ~ # 1500, Size: 2"~24"

### MATERIAL STANDARD / GRADES

WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex (5A), CW6MC (INC 625), CU5MCuC (INC 825), Titanium& Monel Alloy.

API, ANSI, ASME, MSS, BS,ISO & DIN.



Rating:# 900 ~ # 1500, Size: 2''~24" Rating:# 2500, Size: 3''~18''

WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex (5A), CW6MC (INC 625), CU5MCuC (INC 825), Titanium& Monel Alloy.

API, ANSI, ASME, MSS, BS, ISO & DIN.





Rating:# 150 ~ # 2500, Size: ½''~2"

LF2,LF3, LF5, A105, F22, F316/316L, F304/304L, F91, 410, Duplex, Super Duplex, INC625, INC825, titanium and Monel alloy.

# **CHECK VALVES**

### PRODUCT TYPE

### **SIZE (RANGES)**

### MATERIAL STANDARD / GRADES

SWING CHECK VALVE: (BOLTED AND BONNET)

Rating: #150 ~ # 300, Size: 2"~48" Rating: :#900 ~ # 1500, Size: 2"~42" WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex(5A), CW6MC (INC 625), CU5MCuC (INC 825), Titanium & Monel Alloy.

API, ANSI, ASME, MSS, BS, ISO & DIN.



Rating: # 900 ~ # 1500, Size: 2"~42" Rating: # 2500, Size: 3"~12" WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex(5A), CW6MC (INC 625), CU5MCuC (INC 825), Titanium & Monel Alloy.

API, ANSI, ASME, MSS, BS, ISO & DIN.

NON-SLAM CHECK VALVES



Rating:#150 ~ # 2500, Size: 2"~48"

WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex(5A), CW6MC (INC 625), CU5MCuC (INC 825), Titanium& Monel Alloy.

API, ANSI, ASME, MSS, BS, ISO & DIN.



WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex(5A), CW6MC (INC 625), CU5MCuC (INC 825), Titanium& Monel Alloy.

# **CHECK VALVES**

### PRODUCT TYPE

### **SIZE (RANGES)**

### **MATERIAL STANDARD / GRADES**

SWING/PISTON/Y
TYPE CHECK VALVE:
(FORGEDSTEEL)

Rating: # 800 ~ # 2500, Size: ½''~2''

LF2,LF3, LF5, A105, F22, F316/316L, F304/304L, F91, 410, Duplex, Super Duplex, INC625,INC825, Titanium & Monel alloy.

API, ANSI, ASME, MSS, BS, ISO & DIN.

DUAL PLATE CHECK VALVE



WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex(5A), CW6MC (INC 625), CU5MCuC (INC 825), Titanium& Monel Alloy.

API, ANSI, ASME, MSS, BS, ISO & DIN.

WAFER LIFT CHECK VALVE



Rating:# 150 ~ # 900, Size: ½''~4''

WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex(5A), CW6MC (INC 625), CU5MCuC (INC 825), Titanium& Monel Alloy.

API, ANSI, ASME, MSS, BS, ISO & DIN.

# **BALL VALVES**

### PRODUCT TYPE

### **SIZE (RANGES)**

### MATERIAL STANDARD / GRADES



FB/RB) WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex(5A), CW6MC (INC 625), CU5MCuC (INC 825,Titanium and Monel alloy. F316/316L, A105, LF2, LF3, LF5, A105.

# **BALL VALVES**

### PRODUCT TYPE

### **SIZE (RANGES)**

### MATERIAL STANDARD / GRADES



Rating: # 150 ~ # 600, Size: 2"~36"(FB/RB) Rating: # 900 ~ # 1500, Size: 2"~20"(FB/RB) WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex(5A), CW6MC (INC 625), CU5MCuC (INC 825), Titanium and Monel alloy. F316/316L, A105, LF2, LF3, LF5, A105.

API, ANSI, ASME, MSS, BS, ISO & DIN.



Rating: # 150 ~# 300, Size: ½"~12"(FB/RB)

WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex(5A), CW6MC (INC 625), CU5MCuC (INC 825), Titanium and Monel alloy. F316/316L, A105, LF2, LF3, LF5.A105.

API, ANSI, ASME, MSS, BS, ISO & DIN.

FLO ATING BALL VALVES



Rating: #150~ # 300, Size: ½"~12"(FB/RB)

Rating: # 600, Size: ½''~6''(FB/RB) Rating: # 900, Size: ½''~3''(FB/RB) Rating: # 1500, Size: ½''~3''(FB/RB)

Rating: # 2500, Size: ½"~2" (FB/RB)

WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex(5A), CW6MC (INC 625), CU5MCuC (INC 825) A105,Titanium and Monel alloy. F316/316L, A105, LF2, LF3, LF5.

API, ANSI, ASME, MSS, BS, ISO & DIN.



Rating: # 150 ~# 600 , Size: 2''~60''(FB/RB) Rating: # 900, Size: 2''~48''(FB/RB) Rating: #1500, Size: 2''~24''(FB/RB) Rating: # 2500, Size: 2''~16''(FB/RB) WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex (5A), CW6MC (INC 625), CU5MCuC (INC 825) A105, Titanium and Monel alloy. F316/316L, A105, LF2, LF3, LF5.

# **BALL VALVES**

### PRODUCT TYPE

### **SIZE (RANGES)**

### MATERIAL STANDARD / GRADES

TOP ENTRY TRUNNION MOUNTED BALL V ALVES



Rating: #150 ~ # 600LB, Size: 2"~60"(FB/RB) Rating: # 900, Size: 2"~36"(FB/RB) Rating: # 1500, Size: 2"~24"(FB/RB) Rating: # 2500, Size: 2"~12"(FB/RB) WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex (5A), CW6MC (INC 625), CU5MCuC (INC 825) A105, Titanium and Monel alloy. F316/316L, A105, LF2, LF3, LF5.

API, ANSI, ASME, MSS, BS, ISO & DIN.

# **BUTTERFLY VALVES**

### PRODUCT TYPE

### SIZE (RANGES)

### MATERIAL STANDARD / GRADES

TRIPLE OFFSET / DOUBLE OFFSET HIGH PERFORMANCE BUTTERFLY VALVES

Rating: # 150~ # 300, Size: 3"~100" Rating: # 600, Size: 3"~36" Rating: # 900, Size: 3"~24" WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex (5A), CW6MC (INC 625), CU5MCuC (INC 825) nickel alloy, Titanium& Monel Alloy.

API, ANSI, ASME, MSS, BS, ISO & DIN.



RESILIENT SEATED BUTTERFLY VALVES (LUG& WAFER TYPE)

2"~24" (DN50~DN600) Class PN10 ~ PN20 WAFER/LUGGED, -10°C ~150°C, Wrench, Worm gear, Electric, Pneumatic CAST IRON, SG IRON, & CARBON STEEL;

EN12266, EN 539, API609, MSS SP67, ISO 5752.



# **PLUG VALVES**

### **PRODUCT TYPE**

### **SIZE (RANGES)**

### MATERIAL STANDARD / GRADES

PRESSURE BALANCED LUBRICATED PLUG VALVES (SINGLE & TWIN/DOUBLE ISOLATION TYPE)

½" to 36" DN15 ~DN900 Class 150~2500 (PN16~PN 420) RF, RTJ, BW, -46C ~ 560C, Wrench Worm Gear, Electric, Pneumatic Carbon Steel, Stainless Steel & Alloy Steel Carbon Steel, Stainless Steel & Alloy Steel. WCB, WCC, CF8, CF8M, CF3M, CF8C,CF3, LCB,LCC,LC1, Duplex (4A), Super Duplex (5A), CU5MCuC (INC 825), CW6MC (INC 625).





# **PLUG VALVES**

### PRODUCT TYPE

### **SIZE (RANGES)**

### **MATERIAL STANDARD / GRADES**

LUBRICATED STANDARD TYPE & NON-LUBRICATED SLEEVED PLUG



2" to 32" DN50 ~DN800 Class 150~600 (PN16~PN 100) RF, RTJ, BW, -46C~ 560C, Wrench Worm Gear, Electric, Pneumatic Carbon Steel, Stainless Steel & Alloy Steel Carbon Steel, Stainless Steel & Alloy Steel. WCB, WCC, CF8, CF8M, CF3M, CF8C, CF3, LCB, LCC, LC1 Duplex (4A), Super Duplex (5A), CU5MCuC (INC 825), CW6MC (INC 625).

API, ANSI, ASME, MSS, BS, ISO & DIN.

**BRONZE VALVE** 



Size, ½" to 24" Class 150~300 (PN6~PN 50) RF, FF, Thread -29°C ~120°C, Handwheel, Wrench Worm Gear, Electric, BRONZE, ALUMINIUM BRONZE, NI-ALUMINIUM BRONZE

DBBV PLUG VALVES (NON-LUBRICATED)



Size, 2" to 32" DN50 ~DN800 Class 150~600 (PN16~PN 100) RF, RTJ, BW, -46 C~ 560°C, Wrench Worm Gear, Electric, Pneumatic Carbon Steel, Stainless Steel & Alloy Steel Carbon Steel, Stainless Steel & Alloy Steel. ASTM A216 WCB, ASTM A216 WCC, ASTM A351 CF8, CF8M, CF3M, CF8C, CF3, ASTM A352 LCB, LCC, LC1, ASTM A890 4A, 5A BRONZE, ALUMINIUM BRONZE, NI-ALUMINIUM BRONZE.

API, ANSI, ASME, MSS, BS, ISO & DIN.

# **SPECIAL SERVICE VALVES**

### PRODUCT TYPE

BELLOW SEALED ( GATE / GLOBE ) VALVES



### **SIZE (RANGES)**

½" to 24" DN15 ~DN600 Class #150 ~ #600 Hand wheel, Wrench, Worm Gear, Electric and Pneumatic

### MATERIAL STANDARD / GRADES

WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex(5A), CW6MC (INC 625), CU5MCuC (INC 825) Titanium& Monel Alloy.

# **SPECIAL SERVICE VALVES**

### PRODUCT TYPE

CRYOGENIC (GATE / GLOBE/BALL) VALVES)







### **SIZE (RANGES)**

GATE: Sizes: NPS ½"~NPS 36" Pressure Range: # 150 ~ #2500 GLOBE: Sizes: NPS 1/2"~NPS 16" Pressure Range: #150~#1500 BALL: Sizes: NPS ½"~NPS 12" Pressure Range: #150~#2500

Temperature : -40°C to -196° C

### MATERIAL STANDARD / GRADES

WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex (5A), CW6MC (INC 625), CU5MCuC (INC 825) Titanium& Monel Alloy,

API, ANSI, ASME, MSS, BS, ISO & DIN.

### PRODUCT TYPE

LINEAR/ANGULAR CONTROL GLOBE VALVES



### **SIZE (RANGES)**

Rating: # 150~ # 300, Size: ½" ~16" Rating: # 600, Size: 6"~36" Rating: # 900 ~#2500, Size: 2"~16"

### MATERIAL STANDARD / GRADES

WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex(5A), CW6MC (INC 625), CU5MCuC (INC 825) Titanium & Monel Alloy.

ROTARY CONTROL VALVES (SEGMENTED BALL & TOBV)





BALL:

Rating: # 150~ # 600. Size: 6" ~24" Rating: # 900, Size: 6"~16"

BUTTERFLY:

Sizes: NPS3"~NPS 24" Pressure Range: #150~#1500 WCB, WC6, WC9, LCB, LCC, CF8 (304), CF8M (316), CF3 (304L), CF3M (316L), CN7M (Alloy 20), Duplex (4A), Super Duplex (5A). CW6MC (INC 625), CU5MCuC (INC 825) Titanium & Monel Alloy

# **STRAINERS**

### PRODUCT TYPE

Y TYPE STRAINERS



### **SIZE (RANGES)**

Rating: # 150 ~ # 300, Size:2"~24"

Temperature: Up to 400 Deg C

Manufacturer's Standard



# MATERIAL STANDARD / GRADES

CAST IRON, **CARBON STEEL** STAINLESS STEEL.

# **STRAINERS**

### PRODUCT TYPE

### SIZE (RANGES)

### MATERIAL STANDARD / GRADES

**BASKET STRAINERS** 



Rating: # 150 ~ # 300, Size: 1''~24''

Manufacturer's Standard

Temperature: Up to 400 Deg C



CAST IRON, CARBON STEEL STAINLESS STEEL



Rating: # 150 ~ # 300, Size:2"~24"

Temperature: Up to 400 Deg C

Manufacturer's Standard



IS1239, 3589 ASTM A106, SS 304, SS316, DUPLEX STEEL

# **VALVE BODY**

| S STEEL CARBON<br>IROME-MOLY | A351 - CF8M A216 - WCB A217                           |   |
|------------------------------|---|---|
| INOWIE-WOLT                  | - WC6 A217 - WC9 A217 - C5                            | A479 - 316<br>A675 - 70<br>479 - 316<br>479 - 316<br>A479 - 316               |
| S STEEL CARBON<br>IROME-MOLY | A743 - CF8M A105<br>A182 - F11 A182 - F22 A 182 - F5A | A479 - 316<br>A675 -70<br>A479 - 316<br>A479 - 316<br>A479 - 316              |
| S STEEL STEEL CHROME-MOLY    | A182 - F316 A479 - 316<br>A675 - 70<br>SEE FORGINGS   | A479 - 316<br>A479 - 316<br>A675 - 70<br>SEE FORGINGS                         |
|                              | ROME-MOLY   | A182 - F11 A182 - F22 A 182 - F5A  S STEEL  A182 - F316 A479 - 316  A675 - 70 |

# **BOLTING**

# **BOLTS & NUTS**

### PRODUCT TYPE

CS/SS HIGH/LOW TEMP

### **SIZE (RANGES)**

1/8" - 3"

### **MATERIAL STANDARD / GRADES**

Bolts ASTM A193 B7/B7M A320 L7/L7M Nuts - ASTM A194 2H/2HM ASTM A182 F304/304L, 316/316L, 904/904L B8 / B8M





# **GASKETS**

### PRODUCT TYPE

- 1) SPIRAL WOUND GASKETS
- 2) RING JOINT GASKETS
- 3) NON-METALLIC GASKETS
- 4) RUBBER GASKET WITH METAL INSERTS
- 5) INSULATION KIT GASKET
- 6) CAMPROFILE GASKETS

### **SIZE (RANGES)**

ALL STANDARD SIZES

AS PER ASME B16.20 (FOR METALLIC) / ASME B16.21 (FOR NON-METALLIC)

### **MATERIAL STANDARD / GRADES**

METALLIC: CS / SS / DSS / SDSS / SPECIAL ALLOYS

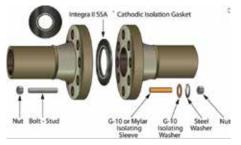
NON-METTALICS: RUBBER (EPDM / NBR / VITON), CNAF, PTFE/TEFLON











# **EXPANSION JOINTS**

The Expansion Joints absorbs movements, vibrations, and tensions in the pipe systems with fluids at temperatures under 200 °C (390 °F) and standard pressures. They provide protection against thermal movements and mechanical forces for high value equipment (pumps, valves, condensers, etc.).

### PRODUCT TYPE

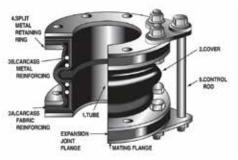
EXPANSION JOINT (TYPES : RUBBER & METALLIC EXPANSION JOINTS)

### **SIZE (RANGES)**

DN40 (1½") to DN2500 (100")

### MATERIAL STANDARD / GRADES

BODY: ASTM A105 / ASTM A36 / A182 304/304L/316/316L DESIGN / PRESSURE RATING: EJMA STD. ASME B16.5 / B16.47 / AWWA C207 OR EQUV. BOLTS: ASTM A193 B7/B7M A320 L7/L7M / B8M NUTS - ASTM A194 2H/2HM / 8M









# **DISMANTLING JOINTS**

The Dismantling Joints are double flanged fittings that accommodate up to 100mm (4") longitudinal adjustment and can be locked at the required length with the tie bars supplied. Not only does this system allow for fast, easy maintenance of valves, pumps or meters, it simplifies future pipe work modifications and reduces downtime when changes need to be made.

### PRODUCT TYPE

DISMANTLING JOINT

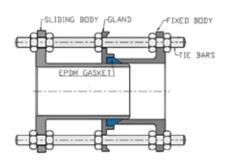
### **SIZE (RANGES)**

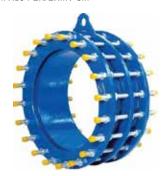
DN40 (1½") to DN2500 (100")

### MATERIAL STANDARD / GRADES

BODY: ASTM A105 / ASTM A36 / IS2062 DESIGN / PRESSURE RATING : ASME B16.5 / B16.47 / AWWA C207 OR EQUV. BOLTS: ASTM A193 B7/B7M A320 L7/L7M / B8M NUTS - ASTM A194 2H/2HM / 8M







# **SERVICES PORTFOLIO**



### **Fabrication**

APS is specialized in providing complete fabrication service. Our Engineering team is equipped with all the necessary software for providing fabrication drawings, complete MTO's, etc.

Our workshop & support services are systemized through an in-house ERP system.

Our workshop is arranged into job shops for preparation works, followed by fabrication bays, sand-blasting & painting areas, finally going into finishing/packing areas. There are dedicated & separate sheds for Stainless, Duplex, Super Duplex & other non-ferrous materials.











# **SERVICES PORTFOLIO**



### **Material Treatment**

The following is the list of material treatments that we offer:

- Blasting and red lead primer coating.
- Combining the techniques of thermal and electrolytic galvanizing, thermal oxidation, chemical cleaning, and miter cutting.
- Treatment of metals and plastics to achieve desired shapes, such as twisting and tapers, for use in mechanical applications.
- FBE coatings, epoxy coatings, coal tar enameling, and mortar linings.
- Rubber lining.













# 3

### Logistics

### Material Storage

We can lower overall costs due to our effective stock management, for which we employ the most cutting -edge equipment. This allows us to keep our costs under control.

### Client-specific Stocks

We can temporarily store Stocks customized to a customer for large projects and then deliver it in the required quantities to the job locations.

### Export paperwork and packaging

Our area of expertise is exporting essential products. We ensure products are correctly packaged for export, provide the required documentation, and arrange transportation to any port or city worldwide. We promise that our customers will receive their orders on time, in the chosen location, and in accordance with their specifications.

# **SERVICES PORTFOLIO**



### **Document Management**

When it comes to the essential needs of a project, we knows the value of having the proper documentation. As part of our service to our clients, we compile comprehensive technical documentation and data dossiers as per the contract.

Depending on the specifics of the client's request, documentation typically include:

- Project Quality Plan
- Inspection and testing plan for the project
- Procedures for manufacturing and testing
- Specifications for welding procedures (WPS)
- Records of pregualification (PQR)
- Reports on Nondestructive Testing
- Material Test Certificate to DIN 50049 or EN 10204 type 2.1, 2.2, 2.3, 3.1, 3.2
   (3.1b, 3.1c) as required by the client.
- Each QC dossier receives the number of copies specified in the contract.



## **Inspection and Testing**

Depending on the client's request, additional testing's may include the following:

Mechanical testing's such as

Tensile Test Bending, Flattening, Elongation Test Hardness Test Charpy V Notch Impact Test

Chemical analysis of product

Metallographic Examination

Huey, Strauss, Pitting, Crevice HIC, SSC, SWC, etc., are all destructive tests our team uses to determine a material's susceptibility to corrosion.

Non-destructive examinations

X-Ray, Fluoroscopy
Ultrasonic Examination
Magnetic Particle Examination
Dye Penetrant Testing
Final Visual and Dimensional Examination

# **OUR USP**

- We are the mill's representatives. Hence a Client's project will get prices of a mill and services
  of a local stockiest.
- We provide total Piping Supply Solutions to your needs, starting from procurement of raw materials until delivery of fabricated spools to your site.
- Clients have complete access to after sales support, including attending to any issues at a Project Site within 24 hours.
- Our in depth knowledge of GCC customs clearance, transportation & legal procedures will aid in expediting delivery of materials to the job site.
- UPS is always ready for long term prices & delivery agreements for the entire duration of the projects.
- We can adapt to changes in design and engineering during Pre & Post bids.
- We can offer flexible buy-back policies.

### PRE-FABRICATED PIPING SPOOLS



### WEIGHTS AND DIMENSIONS OF CARBON STEEL PIPES

Blue: Wall Thickness in Millimeters Red: Weight Per Meter in Kilograms

SI UNITS - ASME / ANSI B 36.10M



| SI UNITS -                        | ASME PIPE SCHEDULES |                |                 |                 |                |                              |                 |                 |                              |                 |                 |                 |                 |                 |                    |
|-----------------------------------|---------------------|----------------|-----------------|-----------------|----------------|------------------------------|-----------------|-----------------|------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------------|
| Nominal<br>pipe<br>size<br>inches | OD MM               | 10             | 20              | 30              | STD            | 40                           | 60              | xs              | 80                           | 100             | 120             | 140             | 160             | XXS             | Shipping<br>Vol/m3 |
| 1/8                               | 10.30               | 1.24<br>0.28   |                 | 1.45<br>0.32    | 1.73<br>0.37   | 1.73<br>0.37                 |                 | 2.41<br>0.47    | 2.41<br>0.47                 |                 |                 |                 |                 | 4.83<br>0.65    | 0.0001             |
| 1/4                               | 13.70               | 1.65<br>0.49   |                 | 1.85<br>0.54    | 2.24<br>0.63   | 2.24<br>0.63                 |                 | 3.02<br>0.80    | 3.02<br>0.80                 |                 |                 |                 | 3.68<br>0.91    | 6.05<br>1.41    | 0.0001             |
| 3/8                               | 17.10               | 1.65<br>0.63   |                 | 1.85<br>0.70    | 2.31<br>0.84   | 2.31<br>0.84                 |                 | 3.20<br>1.10    | 3.20<br>1.10                 |                 |                 |                 | 4.01<br>1.29    | 6.40<br>1.69    | 0.0003             |
| 1/2                               | 21.30               | 2.11<br>1.00   |                 | 2.41<br>1.12    | 2.77<br>1.27   | 2.77<br>1.27                 |                 | 3.73<br>1.62    | 3.73<br>1.62                 |                 |                 |                 | 4.78<br>1.95    | 7.47<br>2.55    | 0.0004             |
| 3/4                               | 26.70               | 2.11<br>1.28   |                 | 2.41<br>1.44    | 2.87<br>1.69   | 2.87<br>1.69                 |                 | 3.91<br>2.20    | 3.91<br>2.20                 |                 |                 |                 | 5.56<br>2.90    | 7.82<br>3.64    | 0.0007             |
| 1                                 | 33.40               | 2.77<br>2.09   |                 | 2.90<br>2.18    | 3.38<br>2.50   | 3.38<br>2.50                 |                 | 4.55<br>3.24    | 4.55<br>3.24                 |                 |                 |                 | 6.35<br>4.24    | 9.09<br>5.45    | 0.0011             |
| 1 1/4                             | 42.20               | 2.77<br>2.69   |                 | 2.97<br>2.87    | 3.56<br>3.39   | 3.56<br>3.39                 |                 | 4.85<br>4.47    | 4.85<br>4.47                 |                 |                 |                 | 6.35<br>5.61    | 9.70<br>7.77    | 0.0018             |
| 1 1/2                             | 48.30               | 2.77<br>3.11   |                 | 3.18<br>3.53    | 3.68<br>4.05   | 3.68<br>4.05                 |                 | 5.08<br>5.41    | 5.08<br>5.41                 |                 |                 |                 | 7.14<br>7.25    | 10.15<br>9.56   | 0.0023             |
| 2                                 | 60.30               | 2.77<br>3.93   |                 | 3.18<br>4.48    | 3.91<br>5.44   | 3.91<br>5.44                 |                 | 5.54<br>7.48    | 5.54<br>7.48                 |                 |                 |                 | 8.74<br>11.11   | 11.07<br>13.44  | 0.0036             |
| 2 1/2                             | 73.00               | 3.05<br>5.26   |                 | 4.78<br>8.04    | 5.16<br>8.63   | 5.16<br>8.63                 |                 | 7.01<br>11.41   | 7.01<br>11.41                |                 |                 |                 | 9.53<br>14.92   | 14.02<br>20.39  | 0.0053             |
| 3                                 | 88.90               | 3.05<br>6.46   |                 | 4.78<br>9.92    | 5.49<br>11.29  | 5.49<br>11.29                |                 | 7.62<br>15.27   | 7.62<br>15.27                |                 |                 |                 | 11.13<br>21.35  | 15.24<br>27.68  | 0.0079             |
| 3 1/2                             | 101.60              | 3.05<br>7.41   |                 | 4.78<br>11.41   | 5.74<br>13.57  | 5.74<br>13.57                |                 | 8.08<br>18.63   | 8.08<br>18.63                |                 |                 |                 |                 |                 | 0.0103             |
| 4                                 | 114.30              | 3.05<br>8.37   |                 | 4.78<br>12.91   | 6.02<br>16.07  | 6.02<br>16.07                |                 | 8.56<br>22.32   | 8.56<br>22.32                |                 | 11.13<br>28.32  |                 | 13.49<br>33.54  | 17.12<br>41.03  | 0.0130             |
| 5                                 | 141.30              | 3.40<br>11.56  |                 |                 | 6.55<br>21.77  | 6.55<br>21.77                |                 | 9.53<br>30.97   | 9.53<br>30.97                |                 | 12.70<br>40.28  |                 | 15.88<br>49.11  | 19.05<br>57.43  | 0.0199             |
| 6                                 | 168.30              | 3.40<br>13.83  |                 |                 | 7.11<br>28.26  | 7.11<br>28.26                |                 | 10.97<br>42.56  | 10.97<br>42.56               |                 | 14.27<br>54.20  |                 | 18.26<br>67.56  | 21.95<br>79.22  | 0.028              |
| 8                                 | 219.10              | 3.76<br>19.97  | 6.35<br>33.31   | 7.04<br>36.81   | 8.18<br>42.55  | 8.18<br>42.55                | 10.31<br>53.08  | 12.70<br>64.64  | 12.70<br>64.64               | 15.09<br>75.92  | 18.26<br>90.44  | 20.62<br>100.92 | 23.01<br>111.27 | 22.23<br>107.92 | 0.048              |
| 10                                | 273.10              | 4.19<br>27.78  | 6.35<br>41.77   | 7.80<br>51.03   | 9.27<br>60.31  | 9.27<br>60.31                | 12.70<br>81.55  | 12.70<br>81.55  | 15.09<br>96.01               | 18.26<br>114.75 | 21.44<br>133.06 | 25.40<br>155.15 | 28.58<br>172.33 | 25.40<br>155.15 | 0.074              |
| 12                                | 323.90              | 4.57<br>35.98  | 6.35<br>49.73   | 8.38<br>65.20   | 9.53<br>73.88  | 1 <mark>0.31</mark><br>79.73 | 14.27<br>108.96 | 12.70<br>97.46  | 17.48<br>132.08              | 21.44<br>159.91 | 25.40<br>186.97 | 28.58<br>208.14 | 33.32<br>238.76 | 25.40<br>186.97 | 0.104              |
| 14                                | 355.60              | 6.35<br>54.69  | 7.92<br>67.90   | 9.53<br>81.33   | 9.53<br>81.33  | 11.13<br>94.55               | 15.09<br>126.71 | 12.70<br>107.39 | 19.05<br>158.10              | 23.83<br>194.96 | 27.79<br>224.65 | 31.75<br>253.56 | 35.71<br>281.70 |                 | 0.126              |
| 16                                | 406.40              | 6.35<br>62.64  | 7.92<br>77.83   | 9.53<br>93.27   | 9.53<br>93.27  | 12.70<br>123.30              | 16.66<br>160.12 | 12.70<br>123.30 | 21.54<br>203.53              | 26.19<br>245.56 | 30.96<br>286.64 | 36.53<br>333.19 | 40.49<br>365.35 |                 | 0.165              |
| 18                                | 457.00              | 6.35<br>70.57  | 7.92<br>87.71   | 11.13<br>122.38 | 9.53<br>105.16 | 14.27<br>155.80              | 19.05<br>205.74 | 12.70<br>139.15 | 23.83<br>254.55              | 29.36<br>309.62 | 34.93<br>363.56 | 39.67<br>408.26 | 45.24<br>459.37 |                 | 0.208              |
| 20                                | 508.00              | 6.35<br>78.55  | 9.53<br>117.15  | 12.70<br>155.12 | 9.53<br>117.15 | 15.09<br>183.42              | 20.62<br>247.83 | 12.70<br>155.12 | <mark>26.19</mark><br>311.17 | 32.54<br>381.53 | 38.10<br>441.49 | 44.45<br>508.11 | 50.01<br>564.81 |                 | 0.258              |
| 22                                | 559.00              | 6.35<br>86.54  | 9.53<br>129.13  | 12.70<br>171.09 | 9.53<br>129.13 |                              | 22.23<br>294.25 | 12.70<br>171.09 | 28.58<br>373.83              | 34.93<br>451.42 | 41.28<br>527.02 | 47.63<br>600.63 | 53.98<br>672.26 |                 | 0.312              |
| 24                                | 610.00              | 6.35<br>94.53  | 9.53<br>141.12  | 14.27<br>209.64 | 9.53<br>141.12 | 17.48<br>255.41              | 24.61<br>355.26 | 12.70<br>187.06 | 30.96<br>442.08              | 38.89<br>547.71 | 46.02<br>640.03 | 52.37<br>720.15 | 59.54<br>808.22 |                 | 0.372              |
| 26                                | 666.00              | 7.92<br>127.36 | 12.70<br>202.72 |                 | 9.53<br>152.87 |                              |                 | 12.70<br>202.72 |                              |                 |                 |                 |                 |                 | 0.435              |
| 28                                | 711.00              | 7.92<br>137.32 | 12.70<br>218.69 | 15.88<br>271.21 | 9.53<br>164.85 |                              |                 | 12.70<br>218.69 |                              |                 |                 |                 |                 |                 | 0.505              |
| 30                                | 762.00              | 7.92<br>147.28 | 12.70<br>234.67 | 15.88<br>292.18 | 9.53<br>176.85 |                              |                 | 12.70<br>234.67 |                              |                 |                 |                 |                 |                 | 0.580              |
| 32                                | 813.00              | 7.92<br>157.24 | 12.70<br>250.64 | 15.88<br>312.15 | 9.53<br>188.82 | 17.48<br>342.91              |                 | 12.70<br>250.64 |                              |                 |                 |                 |                 |                 | 0.660              |
| 34                                | 864.00              | 7.92<br>167.20 | 12.70<br>266.61 | 15.88<br>332.12 | 9.53<br>200.31 | 17.48<br>364.90              |                 | 12.70<br>266.61 |                              |                 |                 |                 |                 |                 | 0.746              |
| 36                                | 914.00              | 7.92<br>176.96 | 12.70<br>282.27 | 15.88<br>351.70 | 9.53<br>212.56 | 19.05<br>420.42              |                 | 12.70<br>282.27 |                              |                 |                 |                 |                 |                 | 0.835              |
| 38                                | 965.00              |                |                 |                 | 9.53<br>224.54 |                              |                 | 12.70<br>298.24 |                              |                 |                 |                 |                 |                 | 0.931              |
| 40                                | 1016.00             |                |                 |                 | 9.53<br>236.53 |                              |                 | 12.70<br>314.22 |                              |                 |                 |                 |                 |                 | 1.032              |
| 42                                | 1067.00             |                |                 |                 | 9.53<br>248.52 |                              |                 | 12.70<br>330.19 |                              |                 |                 |                 |                 |                 | 1.138              |
| 44                                | 1118.00             |                |                 |                 | 9.53<br>260.50 |                              |                 | 12.70<br>346.16 |                              |                 |                 |                 |                 |                 | 1.249              |
| 46                                | 1168.00             |                |                 |                 | 9.53<br>272.25 |                              |                 | 12.70<br>361.82 |                              |                 |                 |                 |                 |                 | 1.364              |
| 48                                | 1219.00             |                |                 |                 | 9.53<br>284.24 |                              |                 | 12.70<br>377.79 |                              |                 |                 |                 |                 |                 | 1.485              |

### **WEIGHTS AND DIMENSIONS OF STAINLESS STEEL PIPES**

Blue: Wall Thickness in Millimeters Red: Weight Per Meter in Kilograms

SI UNITS - ASME / ANSI B 36.19M



|                          | ASME PIPE SCHEDULES |                |                |                |                 |                |                 |                 |                 |                 |                 |                 |                 |                    |
|--------------------------|---------------------|----------------|----------------|----------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------------|
| Nominal pipe size inches | OD MM               | 58             | 108            | 20             | 30              | 40\$           | 60              | 808             | 100             | 120             | 140             | 160             | xxs             | Shipping<br>Vol/m3 |
| 1/8                      | 10.30               | 0.89<br>0.21   | 1.24<br>0.28   |                |                 | 1.73<br>0.37   |                 | 2.41<br>0.48    |                 |                 |                 |                 |                 | 0.0001             |
| 1/4                      | 13.70               | 1.24<br>0.39   | 1.65<br>0.50   |                |                 | 2.24<br>0.64   |                 | 3.02<br>0.81    |                 |                 |                 |                 |                 | 0.0001             |
| 3/8                      | 17.10               | 1.24<br>0.49   | 1.65<br>0.64   |                |                 | 2.31<br>0.86   |                 | 3.20<br>1.12    |                 |                 |                 |                 |                 | 0.0003             |
| 1/2                      | 21.30               | 1.65<br>0.81   | 2.11<br>1.02   |                |                 | 2.77<br>1.29   |                 | 3.73<br>1.64    |                 |                 |                 | 4.78<br>1.98    | 7.47<br>2.59    | 0.0004             |
| 3/4                      | 26.70               | 1.65<br>1.03   | 2.11<br>1.30   |                |                 | 2.87<br>1.71   |                 | 3.91<br>2.23    |                 |                 |                 | 5.56<br>2.94    | 7.82<br>3.69    | 0.0007             |
| 1                        | 33.40               | 1.65<br>1.31   | 2.77<br>2.12   |                |                 | 3.38<br>2.54   |                 | 4.55<br>3.29    |                 |                 |                 | 6.35<br>4.30    | 9.09<br>5.53    | 0.0011             |
| 1 1/4                    | 42.20               | 1.65<br>1.67   | 2.77<br>2.73   |                |                 | 3.56<br>3.44   |                 | 4.85<br>4.53    |                 |                 |                 | 6.35<br>5.69    | 9.09<br>7.88    | 0.0018             |
| 1 1/2                    | 48.30               | 1.65<br>1.93   | 2.77<br>3.16   |                |                 | 3.68<br>4.11   |                 | 5.08<br>5.49    |                 |                 |                 | 7.14<br>7.35    | 10.16<br>9.69   | 0.0023             |
| 2                        | 60.30               | 1.65<br>2.42   | 2.77<br>3.99   |                |                 | 3.91<br>5.52   |                 | 5.54<br>7.60    |                 |                 |                 | 8.74<br>11.29   | 11.07<br>13.65  | 0.0036             |
| 2 1/2                    | 73.00               | 2.11<br>3.75   | 3.05<br>5.34   |                |                 | 5.16<br>8.77   |                 | 7.01<br>11.59   |                 |                 |                 | 9.53<br>15.15   | 14.02<br>20.72  | 0.0053             |
| 3                        | 88.90               | 2.11<br>4.59   | 3.05<br>6.56   |                |                 | 5.49<br>11.47  |                 | 7.62<br>15.51   |                 |                 |                 | 11.13<br>21.67  | 15.24<br>28.11  | 0.0079             |
| 3 1/2                    | 101.60              | 2.11<br>5.26   | 3.05<br>7.53   |                |                 | 5.74<br>13.78  |                 | 8.08<br>18.92   |                 |                 |                 |                 |                 | 0.0103             |
| 4                        | 114.30              | 2.11<br>5.93   | 3.05<br>8.50   |                |                 | 6.02<br>16.32  |                 | 8.56<br>22.66   |                 | 11.13<br>28.75  |                 | 13.49<br>34.05  | 17.12<br>41.66  | 0.0130             |
| 5                        | 141.30              | 2.77<br>9.61   | 3.40<br>11.74  |                |                 | 6.55<br>22.10  |                 | 9.53<br>31.44   |                 | 12.70<br>40.90  |                 | 15.88<br>49.87  | 19.05<br>58.31  | 0.0199             |
| 6                        | 168.30              | 2.77<br>11.48  | 3.40<br>14.04  |                |                 | 7.11<br>28.69  |                 | 10.97<br>43.21  |                 | 14.27<br>55.03  |                 | 18.26<br>68.59  | 21.95<br>80.43  | 0.028              |
| 8                        | 219.10              | 2.77<br>15.00  | 3.76<br>20.27  | 6.35<br>33.82  | 7.04<br>37.38   | 8.18<br>43.20  | 10.31<br>53.90  | 12.70<br>65.63  | 15.09<br>77.08  | 18.26<br>91.82  | 20.62<br>102.47 | 23.01<br>112.97 | 22.23<br>109.57 | 0.048              |
| 10                       | 273.10              | 3.40<br>22.93  | 4.19<br>28.21  | 6.35<br>42.41  | 7.80<br>51.81   | 9.27<br>61.23  | 12.70<br>82.80  | 12.70<br>82.80  | 18.26<br>116.50 | 21.44<br>135.08 | 25.40<br>157.52 | 28.58<br>174.96 | 25.40<br>157.52 | 0.074              |
| 12                       | 323.90              | 3.96<br>31.72  | 4.57<br>36.54  | 6.35<br>50.48  | 8.38<br>66.20   | 9.53<br>75.01  | 14.27<br>110.62 | 12.70<br>98.95  | 21.44<br>162.35 | 25.40<br>189.82 | 28.58<br>211.31 | 33.32<br>242.40 | 25.40<br>189.82 | 0.104              |
| 14                       | 355.60              | 3.96<br>34.34  | 4.78<br>41.98  | 7.92<br>68.94  | 9.53<br>82.57   | 9.53<br>81.53  | 15.09<br>128.64 | 12.70<br>107.4  | 23.83<br>197.94 | 27.79<br>228.07 | 31.75<br>257.43 | 35.71<br>285.99 |                 | 0.126              |
| 16                       | 406.40              | 4.19<br>42.19  | 4.78<br>48.06  | 7.92<br>79.01  | 9.53<br>94.69   | 9.53<br>93.27  | 16.66<br>162.56 | 12.70<br>123.31 | 26.19<br>249.30 | 30.96<br>291.01 | 36.53<br>338.27 | 40.49<br>370.93 |                 | 0.165              |
| 18                       | 457.00              | 4.19<br>47.50  | 4.78<br>54.12  | 7.92<br>89.05  | 11.13<br>124.24 | 9.53<br>105.14 | 19.05<br>208.87 | 12.70<br>139.20 | 29.36<br>314.34 | 34.93<br>369.10 | 39.67<br>388.77 | 45.24<br>466.37 |                 | 0.208              |
| 20                       | 508.00              | 4.78<br>60.22  | 5.54<br>69.69  | 9.53<br>118.93 | 12.70<br>157.48 | 9.53<br>117.15 | 20.62<br>251.61 | 12.70<br>155.13 | 32.54<br>387.34 | 38.10<br>448.22 | 44.45<br>515.86 | 50.01<br>573.43 |                 | 0.258              |
| 22                       | 559.00              | 4.78<br>66.32  | 5.54<br>76.76  | 9.53<br>131.10 | 12.70<br>173.70 | 117.10         | 22.23<br>298.74 | 100110          | 34.93<br>458.30 | 41.28<br>535.06 | 47.63<br>609.79 | 53.98<br>682.51 |                 | 0.312              |
| 24                       | 610.00              | 5.54<br>83.84  | 6.35<br>95.97  | 9.53<br>143.27 | 14.27<br>212.83 | 9.53<br>141.12 | 24.61<br>360.68 | 12.70<br>125.61 | 38.89<br>556.06 | 46.02<br>649.79 | 52.37<br>731.13 | 59.54<br>820.54 |                 | 0.372              |
| 26                       | 666.00              | 30.07          | 30.07          | . 10.27        | _12.50          | .11.12         | 200.00          | .20.01          | 200.00          | 2.0.70          |                 | 220.07          |                 | 0.435              |
| 28                       | 711.00              |                |                |                |                 |                |                 |                 |                 |                 |                 |                 |                 | 0.505              |
| 30                       | 762.00              | 6.35<br>120.13 | 7.92<br>149.52 | 9.53<br>238.25 | 14.27<br>296.64 |                |                 |                 |                 |                 |                 |                 |                 | 0.580              |
| 32                       | 813.00              |                |                |                |                 |                |                 |                 |                 |                 |                 |                 |                 | 0.660              |
| 34                       | 864.00              |                |                |                |                 |                |                 |                 |                 |                 |                 |                 |                 | 0.746              |
| 36                       | 914.00              |                |                |                |                 |                |                 |                 |                 |                 |                 |                 |                 | 0.835              |
| 38                       | 965.00              |                |                |                |                 |                |                 |                 |                 |                 |                 |                 |                 | 0.931              |
| 40                       | 1016.00             |                |                |                |                 |                |                 |                 |                 |                 |                 |                 |                 | 1.032              |
| 42                       | 1067.00             |                |                |                |                 |                |                 |                 |                 |                 |                 |                 |                 | 1.138              |
| 44                       | 1118.00<br>1168.00  |                |                |                |                 |                |                 |                 |                 |                 |                 |                 |                 | 1.249              |
| 48                       | 1219.00             |                |                |                |                 |                |                 |                 |                 |                 |                 |                 |                 | 1.485              |
| 40                       | 1213.00             |                |                |                |                 |                |                 |                 |                 |                 |                 |                 |                 | 1.400              |

# **TECHNICAL DATA**

### **DEFINITION:**

- D Diameter in mm or inch
- t Wall thickness in mm or inch
- L Length in meters or feet
- W Weight of the Pipe in Kg per meter or lb per foot.

### **WEIGHT OF THE PIPE & TUBE**

Standard wall thickness with weight per meter and per foot is listed in specifications and those for API 5L and ASME B 36.10M/B36.19M are included in this brochure.

### For non-standard wall thickness:

For carbon steel pipes the below formula applies:

Pipe Weight  $[kg/m] = 0.0246615 \times (OD [mm] - wt. [mm]) \times wt. [mm]$  for weights per meter of pipe and tube of other materials replace the constant (0.0246615) in the formula above as follows:

| MATERIAL        | FACTOR  |  |  |  |  |
|-----------------|---------|--|--|--|--|
| Alloy 400       | 0.02765 |  |  |  |  |
| Alloy 600       | 0.02639 |  |  |  |  |
| Alloy 800       | 0.02513 |  |  |  |  |
| Aluminium       | 0.00848 |  |  |  |  |
| Copper          | 0.02796 |  |  |  |  |
| Copper-Nickel   | 0.02796 |  |  |  |  |
| Duplex          | 0.02450 |  |  |  |  |
| Stainless Steel | 0.02504 |  |  |  |  |
| Titanium        | 0.01414 |  |  |  |  |

If without Factor, Pipe Weight [kg/m] =  $(\pi \ x \ (0D^2 - (0D - (wtx2))^2) \times Density) / 4,000$ Note - Densities of different materials are given below:



| GRADE           | DENSITY [KG/M3] | GRADE             | DENSITY [KG/M3] |
|-----------------|-----------------|-------------------|-----------------|
| Carbon Steel    | 7.85            | INCONEL 625       | 8.44            |
| SS304L          | 7.90            | INCOLOY 800       | 7.95            |
| 310, 316L, 317L | 7.95            | INCOLOY 825       | 8.14            |
| 410-430         | 7.70            | INCOLOY DS        | 7.91            |
| DUPLEX 22,05    | 7.80            | HASTELLOY B       | 9.24            |
| 254 SMO -904 L  | 8.00            | HASTELLOY B-2     | 9.22            |
| SANICRO 28      | 8.10            | HASTELLOY C-4     | 8.64            |
| NICKEL 200-201  | 8.89            | HASTELLOY C-276   | 8.87            |
| MONEL 400       | 8.83            | CARPENTER 20 Cb-3 | 8.10            |
| INCONEL 600     | 8.42            | TITANIUM          | 4.51            |
| INCONEL 601     | 8.06            |                   |                 |



# **HEAD QUARTERS**

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