

HIGH PERFORMANCE

METAL SEATED

BALL VALVES

FOR EXTREME SERVICES

Your local Agent



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Kulventiler för extremt höga temperaturer

Valvole a sfera per temperature estreme

Válvulas de esfera para temperaturas extremas

ΣΦΑΙΡΙΚΟΙ ΚΡΟΥΝΟΙ ΓΙΑ ΣΥΝΘΗΚΕΣ ΥΨΗΛΩΝ ΘΕΡΜΟΚΡΑ

Palloventtiilit erittäin korkeille lämpötiloille

耐高溫球閥

Ball valves for extreme temperature

Kogelkranen voor extreme temperaturen

Kugelhähne für extremen Temperatureinsatz

Kogelkranen voor extreme temperaturen

Vannes à boisseaux sphériques pour températures élevées



UNI EN ISO 9001:2008
UNI EN ISO 14001:2015



Directive
2014/68/UE "PED"



II2G c IIC TX
II2D c IIC TX

Directive
2014/34/UE "ATEX"

WSS design ANSI B16.34



-46 °C

+400 °C

SAT crio design ANSI B16.34/API 6D/ISO 14313 ISO 17292/ASME VIII Div.1



-196 °C

+200 °C

3W design ANSI B16.34/API 608 ISO 17292/ASME VIII Div.1



-100 °C

+400 °C

“Y” - “L” or “T” configuration

AP design ANSI B16.34/API 608/BS5351 ISO 17292/ASME VIII Div.1



-46 °C

+400 °C

AP10N - AP10HP - AP20P - AP60 - AP64 - AP68 - AP606 - AP609 - AP615 - AP50 - AP54 - APT2 - APT3

SAT design ANSI B16.34/API 608/API 6D ISO 14313/ISO 17292/ASME VIII Div.1



-100 °C

+720 °C

Special Designs



-196 °C

+720 °C

INTRODUCTION

Since 1977 Penta is involved in the design and production of

- Metal seated ball valves for high temperature services
- Metal seated ball valves for abrasive services (with solids)
- Spring Loaded PTFE and Kel-F seated cryogenic ball valves
- Ball valves with special designs arrangements

During its activity the Company has developed proprietary technologies for

- Self lubricated metallic seat material PENTAFITE
- Special expanded graphite gaskets to meet very high pressures and temperatures
- Long lasting designs

More than twenty years of worldwide experience on critical services is now available in a wide range of valve sizes and pressure classes.

All our production is 100% pressure tested to meet NO VISIBLE leakage both in seat hydrotesting and low pressure gas seat testing.

Safety and reliability together with full satisfaction of customer's expectations are the main criteria on which design and manufacture of Penta valves is based.

PENTAFITE UNIQUE TECHNOLOGY

This advanced exclusive seat material shows together:

- Metallic properties, specially for which compressive strength refers
- Low friction factors, to reduce valve torque
- Self lubricating properties, to eliminate galling experienced with other solid metals
- High elasticity, to eliminate lapping of seat to a specific side of the ball and to allow quick and easy interchangeability
- High corrosion resistance

Floating ball

	1/2"	3/4"	1"	1 1/2"	2"	3"	4"	6"	
150									PN10-16
300									PN25-40
600									PN100

Pentafite / Tungsten Carbide / Chrome Carbide / Stellite / RPTFE seats

Trunnion Mounted ball

	1"	1 1/2"	2"	3"	4"	6"	8"	
150								PN10-16
300								PN25-40
600								PN100
900								PN160
1500								PN250

Spring Loaded Reinf. PTFE seats / PENTAFITE metal seats (limited to -100°C) / Kel-F (-196°C)

Floating ball

	1/2"	3/4"	1"	1 1/2"	2"	3"	4"	6"	
150									PN10-16
300									PN25-40
600									PN100
900									PN160
1500									PN250

Spring Loaded Reinf. PTFE seats / PENTAFITE metal seats (limited to -100°C) / Kel-F (-196°C)

Trunnion Mounted ball

	1/2"	3/4"	1"	1 1/2"	2"	3"	4"	6"	8"	10"	
150											PN10-16
300											PN25-40
600											PN100

PEEK / PENTAFITE / Tungsten Carbide / Chrome Carbide / Stellite seats

Trunnion Mounted ball

	1/2"	3/4"	1"	1 1/2"	2"	3"	4"	6"	8"	
150										PN10-16
300										PN25-40
600										PN100
900										PN160
1500										PN250

PEEK / PENTAFITE / Tungsten Carbide / Chrome Carbide / Stellite seats (peek is limited to 240°C)

Floating ball

	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	
150											PN10-16
300											PN25-40
600											PN100
800											
900											PN160
1500											PN250

PEEK / PENTAFITE / Tungsten Carbide / Chrome Carbide / Stellite seats (peek is limited to 240°C)

Floating Ball

	1/2"	3/4"	1"	1 1/2"	2"	3"	4"	6"	8"	
150										PN10-16
300										PN25-40
600										PN100
900										PN160
1500										PN250
2500										PN420

PENTAFITE / Tungsten Carbide / Chrome Carbide / Stellite seats

Trunnion Mounted Ball

	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	
150															PN10-16
300															PN25-40
600															PN100
900															PN160
1500															PN250
2500															PN420

PENTAFITE / Tungsten Carbide / Chrome Carbide / Stellite seats

design ANSI B16.34 / API 608 / API 6D / ISO 14313 / ISO 17292 / API 6A / ASME VIII Div.1

Size range 1/2" to 24" - Pressare range Class 150 to 1500 / API 6A 2000 / 3000 / 5000

Metal seats c/with scraping rings (SAT3 model)
Subsea Ball Valves
Double Block and Bleed Systems
Non-Transflow 3 way
Change-over units