



MODELLO / MODEL

**P40**



**Il modello P40** utilizza la configurazione seggi della serie SAT per garantire la massima affidabilità e durata della tenuta della valvola con le alte pressioni. La tenuta stelo deriva dalla versione semplificata impiegata nella serie AP per semplificare le attività di manutenzione. Come in tutti i prodotti Penta sono disponibili anche per la serie P40 le sedi in PENTAFITE così come quelle ottenute tramite riporti duri. Tutte le valvole sono predisposte con foratura ISO 5211 per il montaggio attuatori.

**The P40 model** uses the SAT serie unique seat design to guarantee the best reliability and long-term tightness against high pressures. Stem seal is coming from the simplified version used in the AP serie to simplify maintenance activities. As like as all Penta production PENTAFITE seats are available on P40 together with hard coated ones. All valves are provided with ISO 5211 top drilling.

### Tenuta stelo

Il sistema a doppia molla e dadi di serraggio consente di fornire il corretto precarico alle tenute stelo, di recuperare usure e differenziali di dilatazione tra stelo e corpo.

### Stem tightness

The double spring system with loading nuts, allows the correct stem gasket pre-loading and the adjustment to recuperate wearing and clearance for different thermal dilation between stem and body.

### Stelo

Gli steli sono 100% sovradimensionati rispetto alla coppia attesa al max. DP di rating.

### Stem

Stem are 100% oversized against expected torque at max. rated DP.

### Sfera

Sfere rettificate ad alta precisione sono prodotte internamente e quindi indurite superficialmente con riporti a tecnologia avanzata.

### Ball

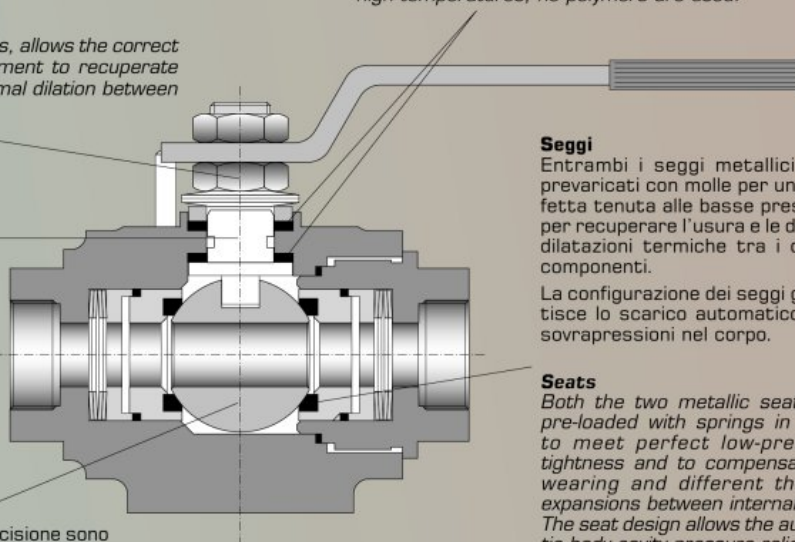
Very high precision grounded balls are produced inside and then hard coated with most advanced system.

### Guarnizioni

Sono utilizzate esclusivamente guarnizioni in Grafoil® resistenti alle alte temperature; nessun materiale polimerico è impiegato.

### Gasket

Only Grafoil® gaskets are used, inherently resistant to high temperatures; no polymers are used.



### Seggi

Entrambi i seggi metallici sono prevaricati con molle per una perfetta tenuta alle basse pressioni, per recuperare l'usura e le diverse dilatazioni termiche tra i diversi componenti.

La configurazione dei seggi garantisce lo scarico automatico delle sovrappressioni nel corpo.

### Seats

Both the two metallic seats are pre-loaded with springs in order to meet perfect low-pressure tightness and to compensate life wearing and different thermal expansions between internals. The seat design allows the automatic body cavity pressure relief.

### INTERVALLO DI PRODUZIONE PRODUCTION RANGE

		CLASSI - PRESSURE CLASSES			
		900		1500	
		160		250	
		F	T	F	T
DN	Modelli Models	P40		P40	
		1/2"			
	3/4"				
	1"				

F = Sfera flottante - Floating ball  
Sfera vincolata - Trunnion mounted ball

## VALVOLE A SFERA FLOTTANTE A SEGGI METALLICI

### METAL SEATED FLOATING BALL VALVES

BI-DIRECTIONAL

#### MATERIALI DISPONIBILI PER I SEGGI - AVAILABLE SEAT MATERIALS

Codice Code	Materiale Material	Durezza Hardness	Temperature di lavoro Working temperature	Pressioni di lavoro Working pressure	Servizio Service Limits
<b>S01</b>	<b>SILVER PENTAFITE</b> (Nickel + Graphite )	120 HB	-100°C / +780°C (-148°F / +1436°F)	ANSI 150 - 1500 PN 10 - 250	For clean services both liquid or gas. For use with <b>HTC, HTCEN, HCR, WC, CRC, ST6</b> ball coated
<b>R01</b>	<b>RED PENTAFITE</b> (Cu + Graphite )	100 HB	-100°C / +500°C (-148°F / +932°F)	ANSI 150 - 600 PN 10 - 100	For clean services both liquid or gas. Lower friction factors in dry gas or steam service. For use with <b>HTC, HTCEN, HCR, ST6</b> ball coated
<b>WC</b>	<b>CARBURO DI TUNGSTENO</b> Tungsten Carbide Coat (Detonation Gun/HVDF)	1100 HV	Amb. / +350°C ( Amb. / +662°F )	ANSI 150 - 600 PN 10 - 100	For liquid or gas services with high presence of solids. Not suitable when small presence of caustic soda is expected. For use with WC ball coat
<b>ST6</b>	<b>STELLITE Gr.6</b> (Detonation Gun/HVDF)	1000 HV	Amb. / +350°C ( Amb. / +662°F )	ANSI 150 - 600 PN 10 - 100	For liquid or gas services with small presence of solids. Suitable when small presence of caustic soda is expected. Best on dry gas or steam services. For use with <b>WC, CRC</b> ball coat

#### MATERIALI DISPONIBILI PER RIVESTIMENTO SFERE - AVAILABLE BALL COATING MATERIALS

Codice Code	Materiale Material	Durezza Hardness	Temperature di lavoro Working temperature	Pressioni di lavoro Working pressure	Servizio Service Limits
<b>HTC</b>	<b>NITRURI DI TITANIO</b> Titanium Nitride (PVD)	2500 HV	-100°C / +600°C ( -148°F / +1112°F )	ANSI 150 - 600 PN 10 - 100	For clean services both liquid or gas. For gas and steam up to 180°C
<b>HTCEN</b>	<b>CARBO-NITRURI DI TITANIO</b> Carbo-Titanium Nitride (PVD)	3500 HV	-100°C / +400°C ( -148°F / +752°F )	ANSI 150 - 1500 PN 10 - 250	For liquid or gas services with small presence of solids. For gas and steam up to 180°C
<b>HCR</b>	<b>NITRURI DI CROMO</b> Chrome- Nitride (PVD)	3000 HV	Amb. / +750°C ( Amb. / +1382°F )	ANSI 150 - 1500 PN 10 - 250	For clean services both liquid or gas. Best on oxidizing services
<b>WC</b>	<b>CARBURO DI TUNGSTENO</b> Tungsten Carbide (Detonation Gun/HVDF)	1100 HV	Amb. / +350°C ( Amb. / +662°F )	ANSI 150 - 1500 PN 10 - 250	For liquid or gas services with high presence of solids. Not suitable when small presence of caustic soda is expected.
<b>CRC</b>	<b>CARBURO DI CROMO</b> Chrome Carbide (Detonation Gun/HVDF)	800 HV	Amb. / +750°C ( Amb. / +1382°F )	ANSI 150 - 1500 PN 10 - 250	For liquid or gas services with small presence of solids. Not suitable when small presence of caustic soda is expected.
<b>ST6</b>	<b>STELLITE GR.6</b> (Detonation Gun/HVDF)	1000 HV	Amb. / +350°C ( Amb. / +662°F )	ANSI 150 - 1500 PN 10 - 250	For liquid or gas services with small presence of solids. Suitable when small presence of caustic soda is expected. Best on dry or steam services.

#### GRADO DI TENUTA - TIGHTNESS

Tutte le valvole PENTA modello P40 sono collaudate per verificarne la TENUTA PERFETTA (perdita zero alla prova idraulica dei seggi secondo ANSI B16.34 e a 6 bar con aria).

All PENTA valves P40 model are tested to verify their BUBBLE TIGHTNESS (no visible leakage during hydraulic seat test according to ANSI B 16.34 and during low pressure air seats test at 100 psi)



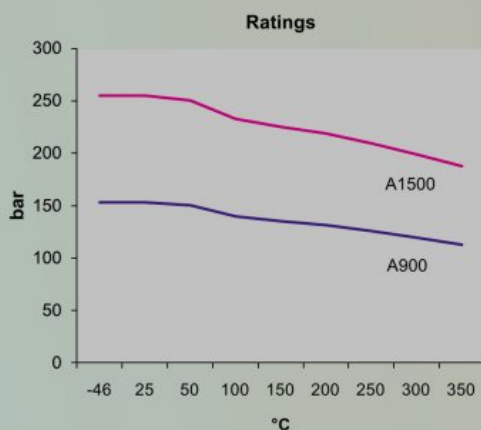
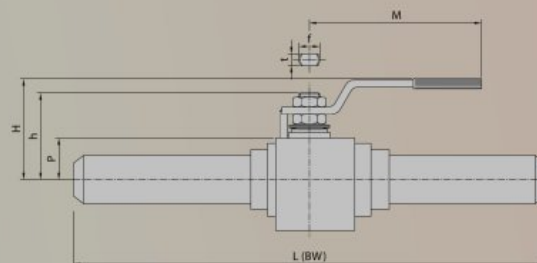
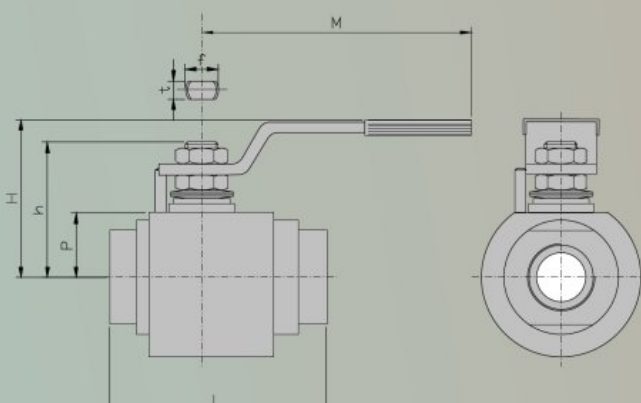
**P40**

**BIDIREZIONALE**

Dimensionamenti  
Design ANSI B16.34/API 608 CL. 1500  
EN 12516-1

Estremità flangiate  
Flanged ends NPT ANSI B1.20.1  
SN ANSI B16.11  
BN ANSI B16.25  
(CON NIPPLI INTEGRALI  
C/W INTEGRAL NIPPLES)

Collaudo  
Testing ANSI B16.104  
API 598  
EN 12266-1  
ISO 5208  
BS 6755-1



**Dimensioni - outline dimensions**

DN	15	20	25
Ø"	1/2"	3/4"	1"
ØE	13	17	22
L	130	130	160
LBW	270	270	305
h	64	68	86
P	34	34	41
H	92	96	102
F/t	16/10	16/10	22/14
ISO 5211	F05	F05	F07

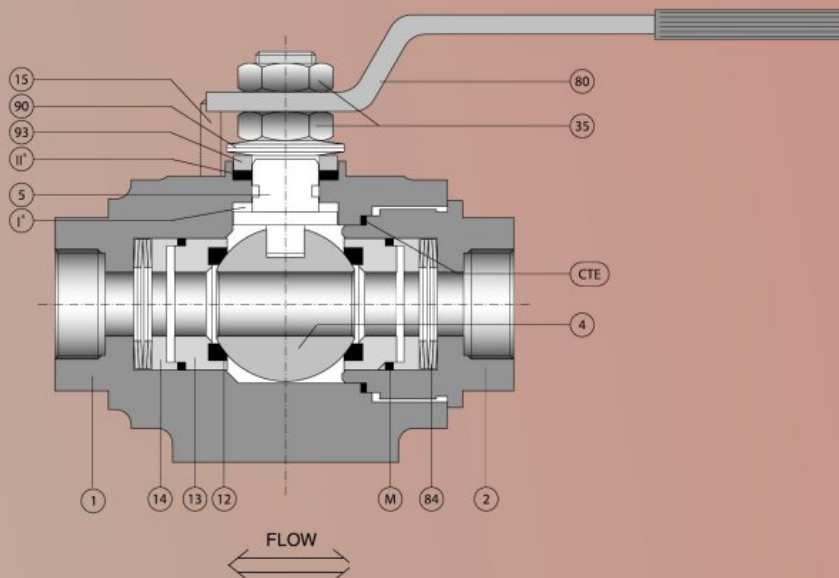


# VALVOLE A SFERA FLOTTANTE A SEGGI METALLICI

## METAL SEATED FLOATING BALL VALVES

BI-DIRECTIONAL

-100 °C +400 °C



P40

TA-LUFT  
APPROVED  
(CON PROLUNGA 100 MM)  
CW 100 MM STEM ELONGATION

FIRE-SAFE CERTIFIED  
API 607 V ED  
ISO 10497

CE  
97/23/CE "PED"  
CAT III

Ex II 2 GD c T6 X  
94/9/CE "ATEX"

### Materiali base - base materials

CTE	Guarn. Corpo/Terminale	Body connector gasket	Grafoil	Grafoil
M	Guarn. Retroseggio	Backseat gasket	Grafoil	Grafoil
II <sup>A</sup>	Guarnizione Secondaria	Secondary Stem seal	Grafoil	Grafoil
I <sup>A</sup>	Guarnizione Primaria	Primary stem seal	Grafoil	Grafoil
93	Premi Baderna	Gland	304 S.S	304 S.S
90	Molle Stelo	Stem spring	UNS S30100	UNS S30100
84	Molle Seggio	Seat spring	UNS S30100	UNS S30100
80	Leva	Handle	Fe37 UNI 7070	Fe37 UNI 7070
35	Dadi Stelo	Nut	Gr. 8.8 UNI 3740	Gr. 8.8 UNI 3740
15	Fermo Leva	Lever stopper	Gr. 8.8 UNI 3740	Gr. 8.8 UNI 3740
14	Premigrafoil	Compression ring	A479 Tp.316	A479 Tp.316
13	Cassetto	Body seat holder	A479 Tp.316	A479 Tp.316
12	Seggio	Seat	PENTAFITE ST6 WC/CRC	PENTAFITE ST6 WC/CRC
5	Stelo	Stem	13% Cr. A564 Tp.630 (17/4PH)	A564 Tp.630 (17/4PH)
-	Riporto Sfera	Ball coating	HTC/HCR ST6 WC/CRC	HTC/HCR ST6 WC/CRC
4	Sfera	Ball	A479 Tp.316	A479 Tp.316
2	Terminale	Connector	A105	A479 Tp.304
1	Corpo	Body	A105	A479 Tp.304

P. No. Parte - Part Name

Materiale - Material

**Altri materiali disponibili su richiesta - Other materials are available on request**

**Altre estremità disponibili su richiesta - Other end connections available on request**

HTC = Nitruri di Titanio (Titanium Nitrides); HCR = Nitruri di Cromo (Chrome Nitrides); ST6 = Stellite 6 Detonation Gun/HVOF  
WC = Carburi di Tungsteno (Tungsten Carbides Detonation Gun/HVOF); CRC = Carburi di Cromo (Chrome Carbides Detonation Gun/HVOF)



## Accessori P40 **P40 accessories**

Leva prolunga SIP per linee coibentate  
*SIP lever elongation for insulated piping systems*



Riduttore - *Manual gear*

Prolunga stelo - *Stem elongation*



Attuatori pneumatici semplice o doppio effetto  
*Single or double acting actuators*



Attuatori Elettrici e Idrraulici  
*Electric and Hydraulic Actuators*