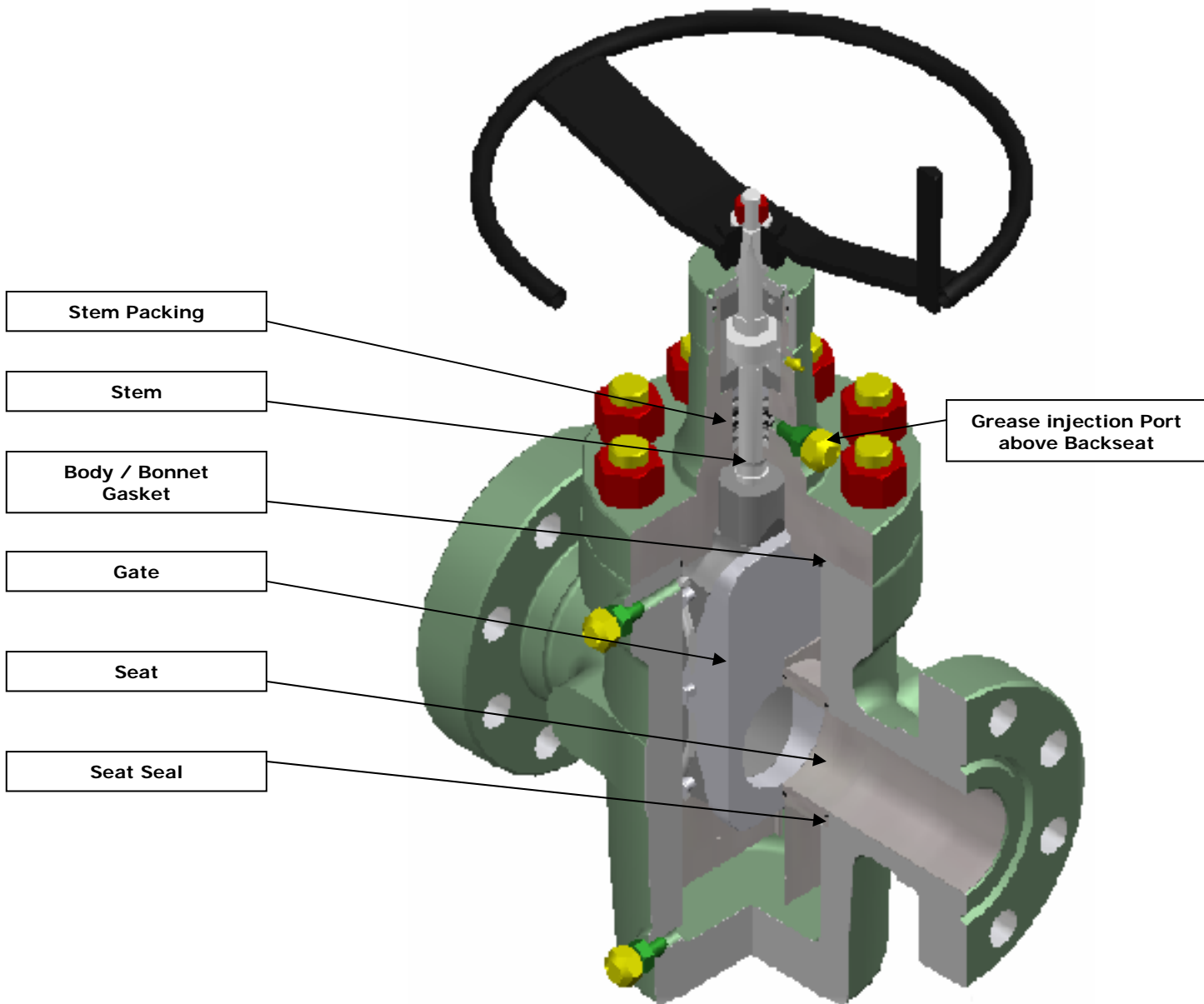




# **EXPANDING GATE VALVES API 6A**

**Through Conduit  
Expanding Gate Valve  
MSA type**



**EXPANDING GATE VALVES**  
**MSA type**



## TECHNICAL DESCRIPTION

### Description:

ON/OFF service valve, Through-conduit, forged body and bolted bonnet constructions as a parallel expanding gate with simultaneous tight sealing on both seats. Upstream and downstream seal is merely provided by mechanical action caused by gate expansion and is not affected by fluctuations or vibration of the flow. Gate expansion against the seats in either open or close position, also allows a very long integrity of sealing surface as well as valve stem by isolating the valve body from flow.

### Standard Construction :

According to API 6A  
Metal seat design  
Double Block & Bleed design  
Fire safe design  
Renawable seats design

### Standard features:

Bi-directional design  
Grease injection fitting on downstream side of the stem backseat for safety

### Remarks:

On request, Breda Energia S.p.a. will supply various solutions not listed in this catalogue as pup piece connections, reduction ports, etc., moreover years experience in products for distribution oil & gas allow Breda Energia S.p.a. to build products on special client specifications.



## Product Range

Service	Pressure Range API 6A ( Psi )		
Standard Range ( Inch )	API 2000	API 3000	API 5000
	1.13/16 up to 7.1/16	2.1/16 up to 9	2.1/16 up to 9
	Pressure Range API 6A ( Psi )		
	API 10000	API 15000	API 20000
	1.13/16 up to 7.1/16	1.13/16 up to 5.1/8	1.13/16 up to 3.1/16

## Material requirements

Service Conditions	Trim	Body and Bonnet Materials	Stem Materials	Gate Materials	Seat Materials
API 6A Classification					
General Service	AA	Alloy Steel	Alloy Steel	Alloy Steel / Hard Facing	Alloy Steel / Hard Facing
General Service	BB	Alloy Steel	AISI 410	AISI 410 / Hard Facing	AISI 410 / Hard Facing
General Service	CC	Stainless Steel 13% Cr.	AISI 410	AISI 410 / Hard Facing	AISI 410 / Hard Facing
Sour Service	DD	Alloy Steel	Alloy Steel	Alloy Steel / Hard Facing	Alloy Steel / Hard Facing
Sour Service	EE	Alloy Steel	AISI 410	AISI 410 / Hard Facing	AISI 410 / Hard Facing
Sour Service	FF	Stainless Steel 13% Cr.	AISI 410	AISI 410 / Hard Facing	AISI 410 / Hard Facing
Sour Service	HH	Alloy Steel clad *	Inconel 718	Inconel 718 / Hard Facing	Inconel 718 / Hard Facing

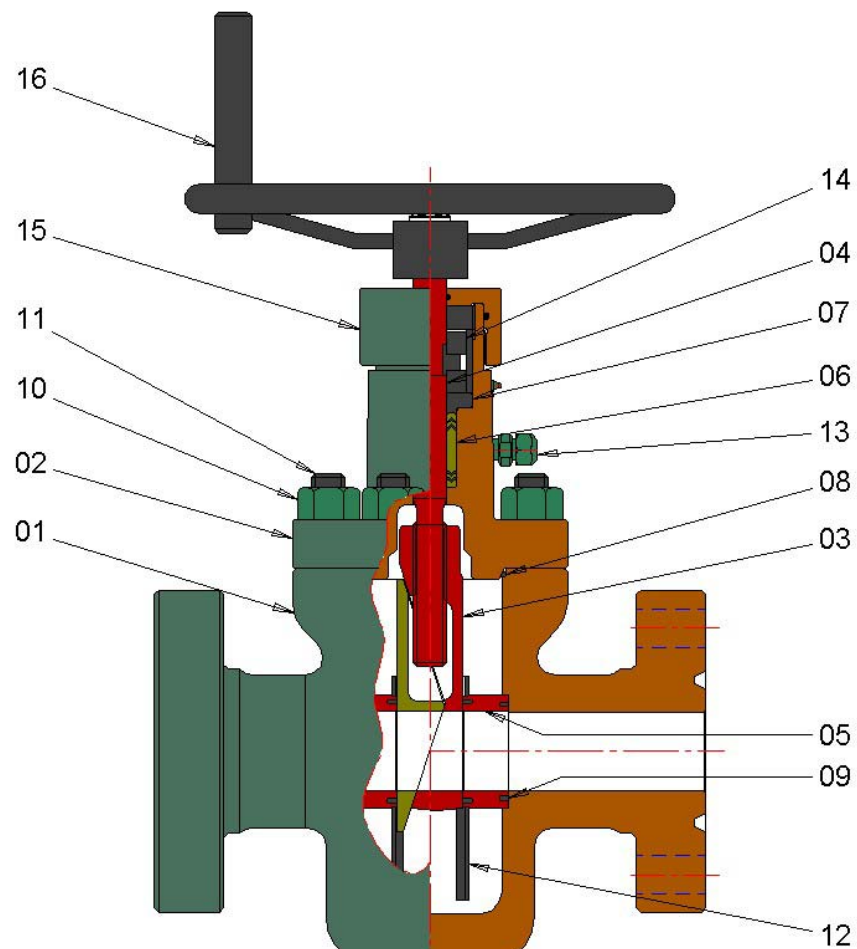
\* Clad with Inconel 625

## Temperature ratings

Temperature Classification	Operating Range			
	°F from min. up to Max.		°C from min. up to Max.	
	min.	Max.	min.	Max.
K	-75	180	-60	82
L	-50	180	-46	82
P	-20	180	-29	82
R	Room temperature		Room temperature	
S	0	150	-18	66
T	0	180	-18	82
U	0	250	-18	121
V	35	250	2	121



## Part List & Spare Parts

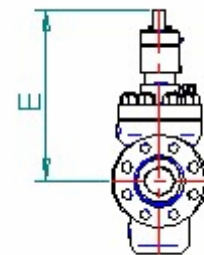
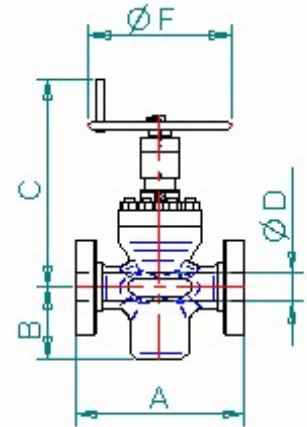


Part N°	Description	Recommended Spare Parts
01	Body	n.a.
02	Bonnet	n.a.
03	Gate	n.a.
04	Stem	n.a.
05	Seat	n.a.
06	Stem Packing	<b>Yes</b>
07	Packing Nut	n.a.
08	Body/Bonnet Gasket	<b>Yes</b>
09	Seat Gasket	<b>Yes</b>
10	Body stud nuts	n.a.
11	Body studs	n.a.
12	Gate guide	n.a.
13	Grease Fitting Port	n.a.
14	Thrust Bearing	n.a.
15	Upper Bonnet	n.a.
16	Handwheel	n.a.



## Overall Dimensions

W.P. API 2000 ( Psi )								
Nominal Size	D	A		B	C	E	F	Weight
		RJ	Thrd.					
( inch )								
2.1/16	52.5	295	229	145	541	438	250	59
2.9/16	65.5	333	-	166	561	458	300	79
3.1/8	81.5	359	280	196	575	472	350	88
4.1/16	103.5	435	-	244	633	530	400	156
5.1/8	130	562	-	279	676	573	500	327
7.1/16x6.3/8	162	562	-	334	810	703	500	530
7.1/16	181	664	-	373	948	842	500	650
W.P. API 3000 ( Psi )								
Nominal Size	D	A		B	C	E	F	Weight
		RJ	Thrd.					
( inch )								
2.1/16	52.5	371	229	137	541	438	350	82
2.9/16	65.5	423	-	162	561	458	400	108
3.1/8	81.5	435	280	196	575	472	400	107
4.1/16	103.5	511	-	244	633	530	500	204
5.1/8	130	613	-	279	676	573	500	327
7.1/16x6.3/8	162	613	-	334	911	805	500	610
7.1/16	181	664	-	373	948	842	500	690
9	229	841	-	473	1044	938	500	1150
W.P. API 5000 ( Psi )								
Nominal Size	D	A		B	C	E	F	Weight
		RJ	Thrd.					
( inch )								
2.1/16	52.5	371	229	137	541	438	350	82
2.9/16	65.5	423	-	162	561	458	400	108
3.1/8	81.5	473	-	203	591	483	400	146
4.1/16	103.5	549	-	250	643	540	500	245
5.1/8	130	727	-	289	861	755	500	588
7.1/16x6.3/8	162	737	-	344	926	820	500	771
7.1/16	181	813	-	380	955	849	500	925
9	229	1041	-	483	120	1097	500	1950



**Note :**  
 - Dimensions in mm.  
 - Dimensions and weights are subject to change without notice



## Overall Dimensions

W.P. API 10000 ( Psi )							
Nominal Size	D	A	B	C	E	F	Weight
( inch )							(kg.)
1.13/16	46	464	135	508	354	400	92
2.1/16	52.5	521	155	526	372	500	113
2.9/16	65	565	170	574	419	500	168
3.1/16	78	619	220	634	481	500	353
4.1/16	103.5	670	271	680	527	600	350
5.1/8	130	737	321	943	837	500	950
7.1/16x6.3/8	162	889	407	1167	1057	500	1200
7.1/16	179.5	889	463	1167	1057	800	1500
9	229	1041	513	1347	1172	800	2600
W.P. API 15000 ( Psi )							
Nominal Size	D	A	B	C	E	F	Weight
( inch )							(kg.)
1.13/16	46	457	135	508	354	400	102
2.1/16	52.5	483	160	556	402	450	160
2.9/16	65	533	188	618	465	500	237
3.1/16	78	599	226	666	513	550	352
4.1/16	103.5	737	284	1001	895	500	895
5.1/8	130.5	889	335	1020	915	450	1460
<b>Note :</b>							
- Dimensions in mm.							
- Dimensions and weights are subject to change without notice							

