



Model RVS - M Slab Gate Valves

TS-043 Rev. H

► FEATURES AND BENEFITS:

Operating temperature

Model **RVS-M** slab gate valve are available with API Temperature ratings of L (-50 F) through U (250 F).

Slab gate

The single piece slab gate is field-replaceable and provides the valve with full bi-directional sealing capability at both high and low pressures.

Seat design

Spring-loaded, pressure energized, non-elastomeric lip-seal between seat and body assure low pressure sealing
Metal-to-metal sealing (gate-to-seat and seat-body).

Packing design

Non-elastomeric stem seal, pressure energized and / or springloaded, no require soft packing injection.

Integrated backseat

The valves have an integrated metal-to-metal stem to bonnet backseat. When valve is in backseat position pressure is contained within the valve cavity and cannot ingress into bonnet or stem packing area.

Grease fittings

The valve body may be lubricated through the grease fitting provided in the valve body. An in-line check valve is provided behind the grease fitting to ensure a unidirectional flow. All fittings meet the requirements of NACE MR0175.

Lubrication and corrosion protection

The valves have body cavity lubrication appropriate for the material class and temperature rating of the valve. This ensures smooth operation of the valve under pressure and prevents corrosion during storage.

Full through conduit bore

The full through conduit bore provides for smooth flow with minimal turbulence. It also provides an unobstructed passage for well intervention tools. The valves are drift tested in accordance with API 6A.

Low operating torque

All Model **RVS-M** valves have upper/lower roller needle thrust bearings isolate from well fluid for minimizing torque and solid taper joint between hand wheel and stem adapter.

Body and bonnet sealing

All Model **RVS-M** valves have a soft metallic crush ring for body and bonnet sealing.

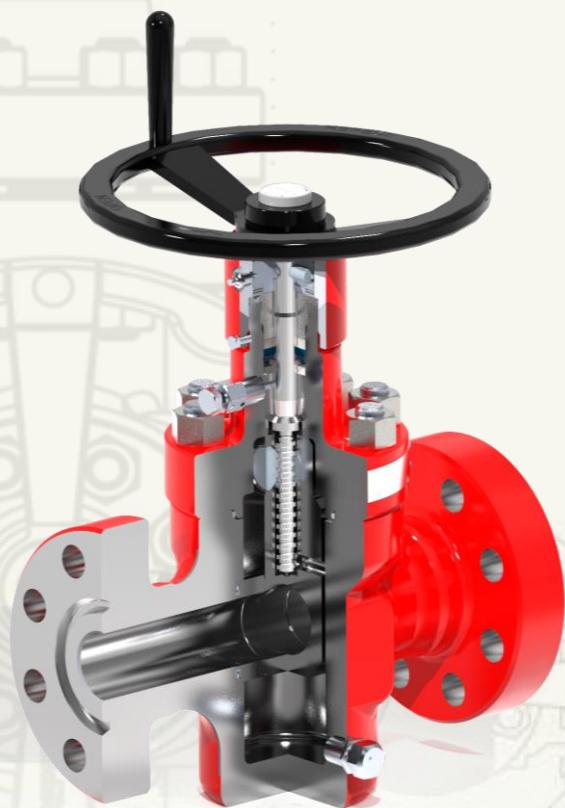


Fig. 1

► GENERAL DESCRIPTION:

Model **RVS-M**, new, modern, strong Slab Gate Valve was special design according API 6A for wellheads and X-mas trees or manifolds, based on field experience and customers request. The Slab Gate Valves are made in all material class (AA.....HH); temperature range and PSL level requirements.

All Model **RVS-M** slab gate valves are API 6A monogrammed equipment and are available in bore sizes from 1 13/16" ÷ 7 1/16" and for 2000 to 15000 psi service



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REPEDE
Pressure Control

Sealing Performance.

► MAIN COMPONENTS:

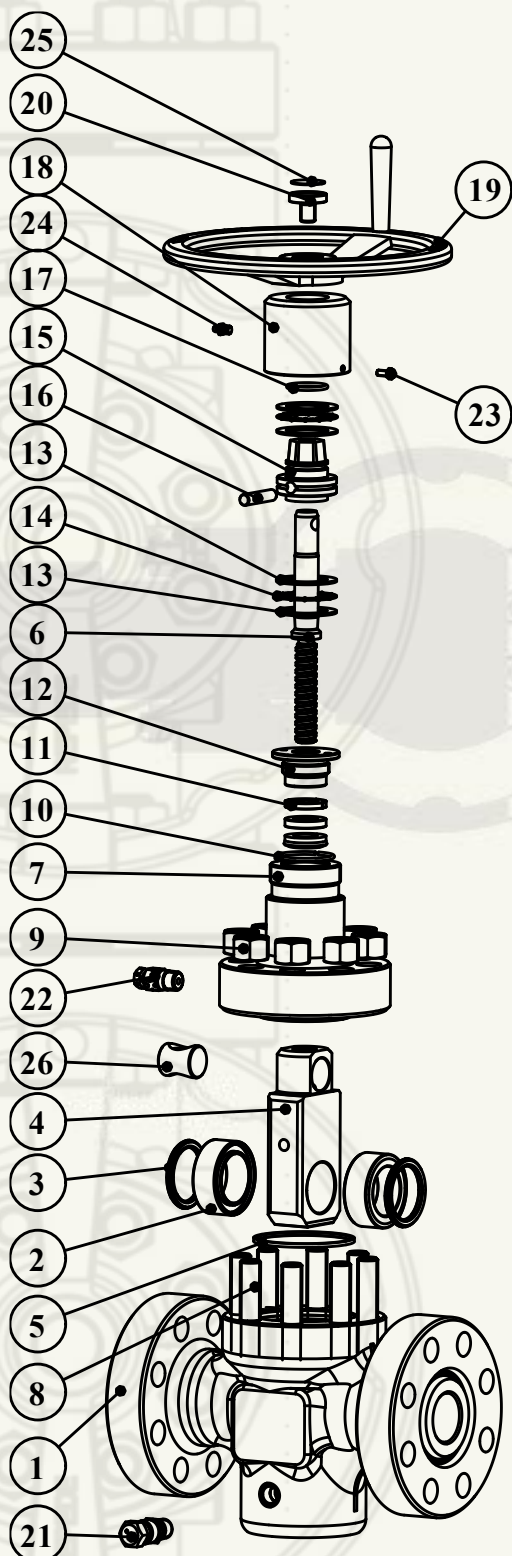


Fig. 2

Item	Description
1	Body
2	Seat
3	Gasket
4	Gate
5	Bonnet seal ring
6	Stem
7	Bonnet
8	Stud
9	Nut
10	Bottom ring
11	Stem packing
12	Packing gland
13	Needle roller
14	Bearing washer
15	Adapter
16	Pin
17	„O”-ring
18	Bearings cap
19	Hand wheel
20	Special bolt
21	Grease fitting
22	Vent fitting
23	Bolt
24	Bearings grease fitting
25	Label
26	Gate nut



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► DIMENSIONS:

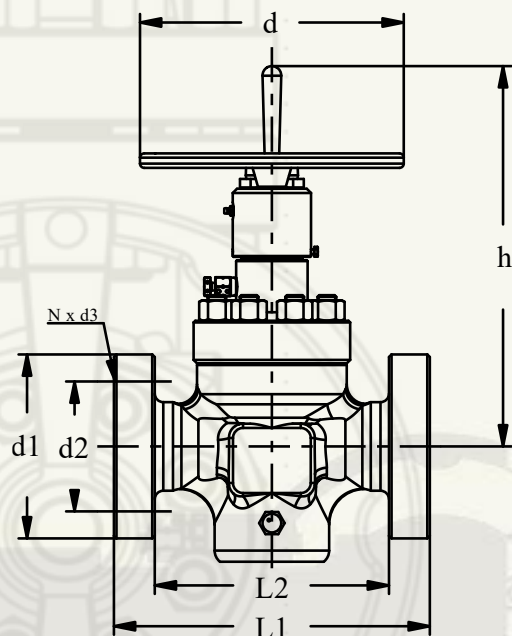


Fig. 3

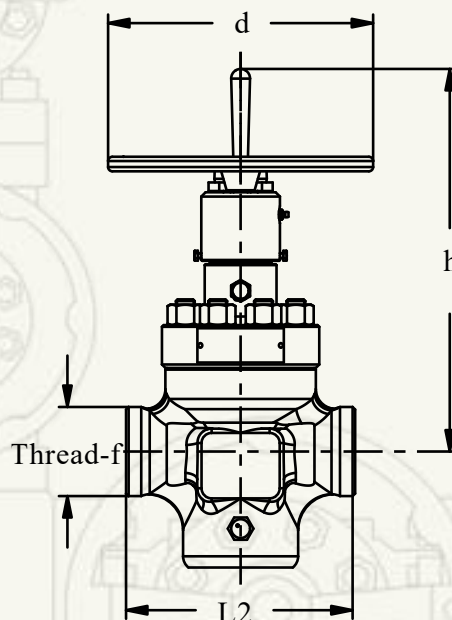


Fig. 4

Table 1 (see Fig. 4)

SE version							
DN (inch)	PN (psi)	L2 (mm)	h (mm)	d (mm)	Thread - f		
					LP	NU	EU
2 1/16"	2000	268	457	280	2"	2 3/8"	2 3/8"
2 9/16"	2000	292	483	310	2 1/2"	2 7/8"	2 7/8"
3 1/8"	2000	324	503	310	3"	3 1/2"	3 1/2"
4 1/16"	2000	365	583	406	4"	4 1/2"	4 1/2"
2 1/16"	3000	268	457	310	2"	2 3/8"	2 3/8"
2 9/16"	3000	292	483	406	2 1/2"	2 7/8"	2 7/8"
3 1/8"	3000	324	503	406	3"	3 1/2"	3 1/2"
4 1/16"	3000	365	583	508	4"	4 1/2"	4 1/2"
2 1/16"	5000	268	457	310	2"	2 3/8"	2 3/8"
2 9/16"	5000	292	483	406	2 1/2"	2 7/8"	2 7/8"
3 1/8"	5000	324	503	406	3"	3 1/2"	3 1/2"
4 1/16"	5000	365	583	508	4"	4 1/2"	4 1/2"



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► DIMENSIONS(CONTINUED):

Table 2 (see Fig. 3)

FE version								
DN (inch)	PN (psi)	L1 (mm)	d1 (mm)	d2 (mm)	nxd3	b (mm)	h (mm)	d (mm)
2 1/16"	2000	295,2	165	127	8 x ø 19	36,3	457	280
2 9/16"	2000	333,2	190,5	149	8 x ø 22	37	483	310
3 1/8"	2000	358,6	209,6	168,1	8 x ø 22	40	503	310
4 1/16"	2000	435	275	216	8 x ø 26	46	583	406
5 1/8"	2000	562	330	266,7	8 x ø 29	52,5	638	508
7 1/16" x 6"	2000	562	355,6	292	12 x ø 29	55,6	726	508
7 1/16" x 6 3/8"	2000	562	355,6	292	12 x ø 29	55,6	726	508
7 1/16"	2000	663,5	355,6	292	12 x ø 29	55,6	726	508
2 1/16"	3000	371,4	215,9	165,1	8 x ø 26	49	457	310
2 9/16"	3000	422	244,3	190,5	8 x ø 29	52,5	483	406
3 1/8"	3000	434,8	241,5	190,5	8 x ø 26	46	503	406
4 1/16"	3000	511	292,1	235	8 x ø 32	52,4	583	508
5 1/8"	3000	612,6	350	279,5	8 x ø 35	59	638	600
7 1/16" x 6"	3000	612,6	381	317,5	12 x ø 32	65,3	726	600
7 1/16" x 6 3/8"	3000	612,6	381	317,5	12 x ø 32	65,3	726	600
7 1/16"	3000	714	381	317,5	12 x ø 32	65,3	726	600
2 1/16"	5000	371,4	215,9	165,1	8 x ø 26	49	457	310
2 9/16"	5000	422	244,3	190,5	8 x ø 29	52,5	483	406
3 1/8"	5000	473	266,7	203	8 x ø 32	56	503	406
4 1/16"	5000	549	311	241	8 x ø 35	62	583	508
5 1/8"	5000	727	374,6	292	8 x ø 42	81	638	600
7 1/16" x 6"	5000	736,5	393,7	317	12 x ø 38	92	726	700
7 1/16" x 6 5/8"	5000	736,5	393,7	317	12 x ø 38	92	726	700
7 1/16"	5000	812,8	393,7	317	12 x ø 38	92	726	700
1 13/16"	10000	463,5	187,5	146	8 x ø 22	42,5	450	406
2 1/16"	10000	522,2	201,7	159	8 x ø 22	47	461	406
2 9/16"	10000	566,7	233,2	184	8 x ø 26	54,4	480	508
3 1/16"	10000	621	271,3	216	8 x ø 29	61,5	497	508
4 1/16"	10000	670	315	259	8 x ø 32	70,5	610	600
5 1/8"	10000	737	356	300	12 x ø 32	82	670	700
7 1/16" x 6 3/8"	10000	889	479,5	40,5	12 x ø 42	105,5	-	-
1 13/16"	15000	458	209,5	160	8 x ø 26	45,5	640	450
2 1/16"	15000	484	224	175	8 x ø 26	53,8	540	450
2 9/16"	15000	534,9	254	200	8 x ø 29	57,2	600	476
3 1/16"	15000	600	288	230	8 x ø 32	67	625	580
4 1/16"	15000	737	360	290,5	8 x ø 40	79	720	660



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Sealing Performance.

- Materials of construction listed below are as provided in standart valve configurations. Alternate materials are available upon customer request.

Table 3

Materials of construction listed below are as provided in standart valve configurations. Alternate materials are available upon customer request.						
API Mat'1 Class	AA	BB	CC	DD	EE-0,5/1,5	EE-NL
Service	General	General	General	Sour	Sour	Sour
Trim	Standard	SS Trim	Full SS	Standard	SS Trim	SS Trim
Corrosive	No	Slightly	Moderate	No	Moderate	Moderate
Components						
Body & Bonnet	AISI 4130 or A487-4C	AISI 4130 or A487-4C	AISI 410 or A487 CA-15	AISI 4130 or A487-4C	AISI 4130 or A487-4C	AISI 4130 or A487-4C
Gate	AISI 4130 Nitrided	AISI 410 Nitrided	AISI 410 Nitrided	AISI 4130 Nitrided	AISI 410 Nitrided	AISI 410 Nitrided
Seats	AISI 4130 Nitrided	AISI 410 Nitrided	AISI 410 Nitrided	AISI 4130 Nitrided	AISI 410 Nitrided	AISI 410 Nitrided
Stem	AISI 4130 Nitrided	AISI 410 Nitrided 17-4PH	AISI 410 Nitrided 17-4PH	AISI 4130 Nitrided	AISI 410 Nitrided 17-4PH	Inconel 718 or 316CW
Bonnet seal ring	AISI 1018/1020	AISI 304 or AISI 316	AISI 304 or AISI 316	AISI 1018/1020	AISI 304 or AISI 316	AISI 304 or AISI 316
Studs	A193 Gr.B7 or A320 Gr.L7	A193 Gr.B7 or A320 Gr.L7	A193 Gr.B7 or A320 Gr.L7	A193 Gr.B7M or A320 Gr.L7M	A193 Gr.B7M or A320 Gr.L7M	A193 Gr.B7M or A320 Gr.L7M
Nuts	ASTM A194 Gr.2H	ASTM A194 Gr.2H	ASTM A194 Gr.2H	ASTM A194 Gr.2HM	ASTM A194 Gr.2HM	ASTM A194 Gr.2HM



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Sealing Performance.

- **Materials of construction listed below are as provided in standard valve configurations. Alternate materials are available upon customer request.(continued)**

Table 3 (continued)

Materials of construction listed below are as provided in standard valve configurations. Alternate materials are available upon customer request.				
API Mat'l Class	FF-0,5/1,5	FF-NL	HH1	HH2
Service	Sour	Sour	Sour	Sour
Trim	Full SS	Full SS	Full SS	Full SS
Corrosive	highly	highly	highly	highly
Components				
Body & Bonnet	AISI 410	AISI 410	AISI 4130 Inconel 625 cladding	F6NM Inconel 625 cladding
Gate	AISI 410 Nitrided	AISI 410 Nitrided	Inconel 718 TC coating	Inconel 718 TC cladding
Seats	AISI 410 Nitrided	AISI 410 Nitrided	Inconel 718 TC coating or Stellite	Inconel 718 TC cladding or Stellite
Stem	410/17-4PH Nitrided	Inconel 718 or 316CW	Inconel 718	Inconel 718
Bonnet seal ring	AISI 304 or AISI 316	AISI 304 or AISI 316	AISI 316	AISI 316
Studs	A193 Gr.B7M or A320 Gr.L7M	A193 Gr.B7M or A320 Gr.L7M	A193 Gr.B7M or A320 Gr.L7M	A193 Gr.B7M or A320 Gr.L7M
Nuts	ASTM A194 Gr.2HM	ASTM A194 Gr.2HM	ASTM A194 Gr.2HM	ASTM A194 Gr.2HM

► **NOTE:**

1. Nitriding is standard on all gates and seats as per material class from the table . Tungsten Coated TC are available for high exposure valve trim and on request
2. Materials for sour service trims according to NACE MR0175. Explanation for suffixes used for sour trims:
0,5 = 0.5 psi maximum partial pressure of hydrogen sulfide
NL = No limit to hydrogen sulfide exposure.
3. Corrosion resistant alloy per NACE MR0175.
4. Charpy impact test results are provided as required by API according to the temperature rating and material class.