



Forging is a manufacturing process in which metals are modeled through the application of pressure, thus producing extremely strong and tough valves. Due to its grain structure, forged steel has a great advantage over cast steel being more solid and consistent. D-LINE® forged steel valves are manufactured and tested in strict accordance with ASTM, ASME, ANSI, API and other applicable industry codes and specifications.

APPLICATIONS

D-LINE® Gate Valves serve multi-national end users in a wide range of applications in many industries including:

- Water Treatment
- Food industries
- Mining
- Pharmaceutical
- Oil refinery industries
- Chemical & Petrochemical
- Ship building industries

DESIGN FEATURES

- Outside screw and yoke
- Thread dimensions to per ASME B1.20.1
- Socket weld dimensions to per ASME B16.11
- Face to face dimensions for RF valves to per ASME B16.10
- Shell wall thickness to per API 602
- Valve design to per API 602
- Universal trim 8
- Solid wedge
- Standard port
- Wheel operator
- Metal seat
- Sour service to per NACE MR-0175

TEST SPECIFICATION				
TEST ACCORDANCE TO PER API 598				
CLASS	150	300	600	800
NOMINAL PRESSURE	285 PSI	740 PSI	1440 PSI	1970 PSI
SHELL TEST (WATER)	450 PSI	1125 PSI	2225 PSI	2970 PSI
SEAT TEST (WATER)	315 PSI	815 PSI	1630 PSI	2170 PSI
AIR TEST	80 PSI	80 PSI	80 PSI	87 PSI

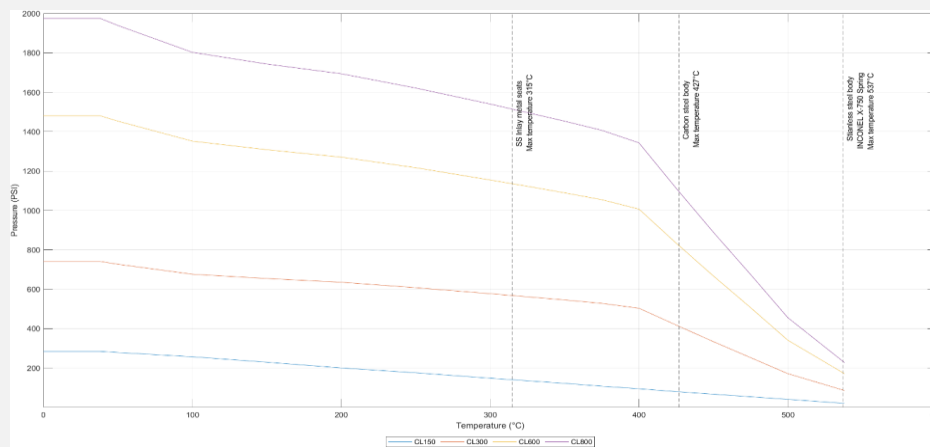
FEATURES	
SIZE	1/4" - 2"
CLASS	800
CONNECTION	NPT / SW / RF
TEMPERATURE	-29°C to 538°C

MARKING BODY	
FRONT	BACK
A105N	NACE
2	
800	

PRESSURE - TEMPERATURE RATING

These are conservative guide for general service.

Previous experience in process or new development may permit applications above those shown.



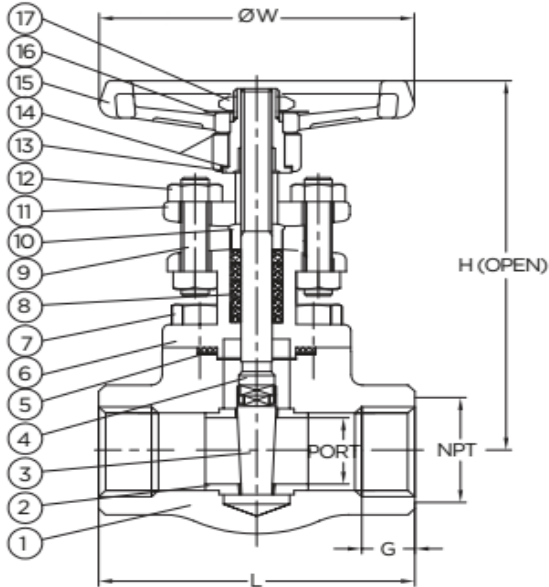
Forged steel ASTM A-105
ASME B16.34 Ratings
Material Limits

*Upon prolonged exposure to temperatures above 425°C, the carbide phase of steel may be converted to graphite. Permissible, but not recommended for prolonged usage above 425°C.

*For A105 material only killed steel shall be used above 455°C.

DIMENSIONS

THREADED



MATERIAL LIST

1	BODY	ASTM A-105N
2	SEAT RING	ASTM A-276 Gr. 410+STL#6
3	WEDGE	ASTM A-276 Gr. 420
4	STEM	ASTM A-182 Gr. 6Fa
5	BODY SEAL	SS304+GRAPHITE
6	BONNET	ASTM A-105N
7	BODY BOLT	ASTM A-193 Gr. B7
8	STEM PACKING	GRAPHITE
9	GLAND BOLT	ASTM A-193 Gr. B7
10	GLAND	ASTM A-276 Gr. 410
11	GLAND FLANGE	ASTM A-105
12	GLAND NUT	ASTM A-194 Gr. 2H
13	SLEEVE	ASTM A-276 Gr. 410
14	WASHER	SS304
15	HANDWHEEL	ASTM A-197
16	NAMEPLATE	ALUMINIUM
17	HANDWHEEL NUT	ASTM A-194 Gr. 2H

DIMENSIONS, WEIGHTS & TORQUE

MODEL	SIZE	PORT	L	H (OPEN)	ØW	G	NPT	WEIGHT (KG)	TORQUE (LBS-INCH)
1828T-02	1/4"	DN8	0.24	3.11	6.14	3.94	0.37	1.95	443.25
1828T-03	3/8"	DN10	0.24	3.11	6.14	3.94	0.41	1.95	443.25
1828T-04	1/2"	DN15	0.39	3.11	6.34	3.94	0.54	1.95	443.25
1828T-05	3/4"	DN20	0.53	3.62	6.34	3.94	0.55	2.09	443.25
1828T-06	1"	DN25	0.69	4.37	7.87	4.72	0.69	3.59	531.90
1828T-07	1 1/4"	DN32	0.89	4.65	8.62	5.91	0.51	1 1/4"	753.53
1828T-08	1 1/2"	DN40	1.13	4.65	9.69	5.91	0.72	1 1/2"	753.53
1828T-09	2"	DN50	1.44	5.20	10.43	5.91	0.76	2"	975.15

*WEIGHT IS ESTIMATED

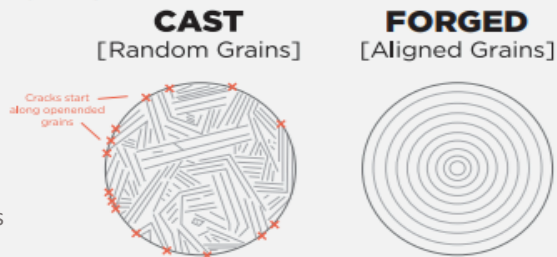
*ALL DIMENSIONS ARE EXPRESSED IN INCHES

FORGED STEEL ADVANTAGES

Forged steel offers a great advantage against casting or plating:

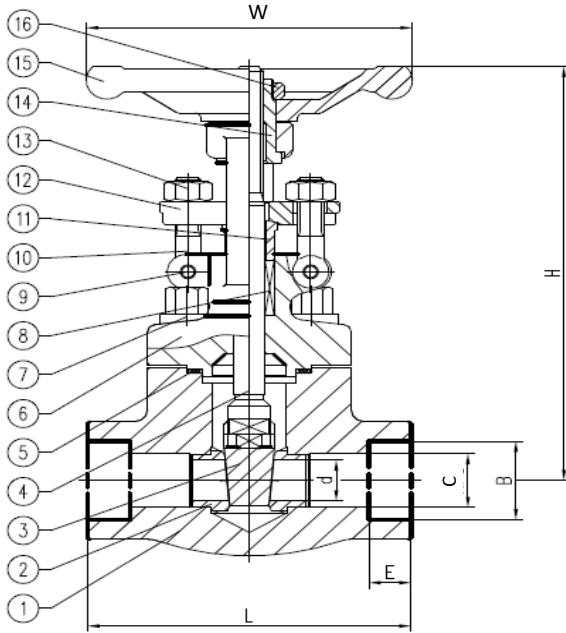
- Saving machining hours
- Better metallic yield
- Improving the grain structure
- Directional flow that enables the improvement of impact and mechanical resistance properties

It is a manufacturing process where metals is modeled by applying pressure. ASTM forged carbon steel grade A-105 is a low carbon, manganese and silicon containing steel.



DIMENSIONS

SOCKET WELD



VALVE MATERIAL LIST		
No.	DESCRIPTION	MATERIAL
1	BODY	ASTM A-105N
2	SEAT RING	ASTM A-182 Gr. F6A + STL #6
3	WEDGE	ASTM A-182 Gr. F6A
4	STEM	ASTM A-182 Gr. F6A
5	BODY SEAL	SS304 + GRAPHITE
6	BONNET	ASTM A-105N
7	BODY BOLT	ASTM A-193 Gr. B7M
8	STEM PACKING	GRAPHITE
9	PIN	ASTM A-276 Gr. 410
10	GLAND BOLT	ASTM A-193 Gr. B7M
11	SLEEVE	ASTM A-276 Gr. 410
12	GLAND FLANGE	ASTM A-105N
13	GLAND NUT	ASTM A-194 Gr. 2HM
14	STEM NUT	ASTM A-276 Gr. 410
15	HANDWHEEL	ASTM A-47
16	HANDWHEEL NUT	ASTM A-29

VALVE DIMENSIONS & WEIGHTS

MODEL	SIZE		L	H (CLOSE)	W	E	B	C	d	WEIGHT (KG)	TORQUE (LBS-INCH)
1828S-04	1/2"	DN15	3.11	5.12	3.94	0.38	0.86	0.55	0.41	1.91	443.25
1828S-05	3/4"	DN20	3.63	5.32	3.94	0.50	1.08	0.74	0.54	2.00	443.25
1828S-06	1"	DN25	4.37	6.30	4.93	0.50	1.35	0.94	0.71	3.47	531.90
1828S-07	1-1/4"	DN32	4.73	7.29	4.93	0.50	1.69	1.18	0.91	5.06	753.53
1828S-08	1-1/2"	DN40	4.73	8.27	6.30	0.50	1.93	1.48	1.15	5.90	753.53
1828S-09	2"	DN50	5.52	9.65	7.09	0.62	2.42	1.83	1.42	8.50	975.15

*WEIGHT IS ESTIMATED

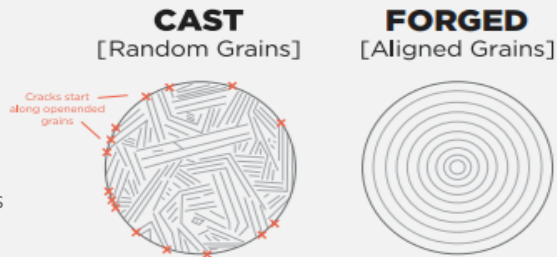
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FORGED STEEL ADVANTAGES

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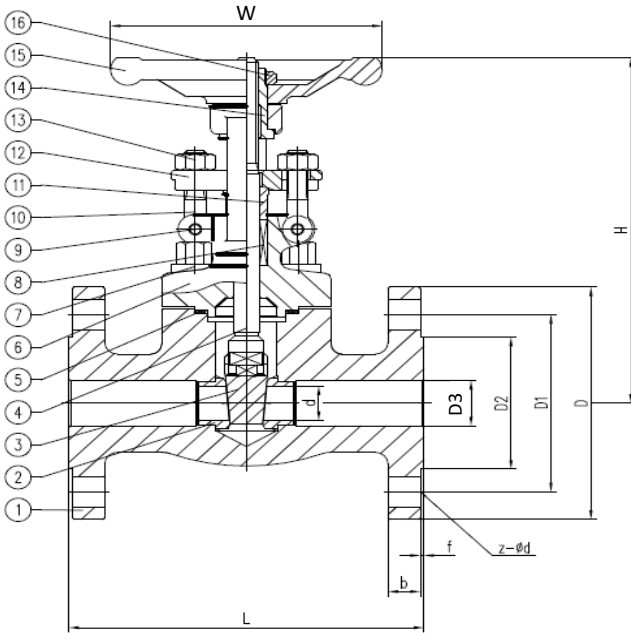
- Saving machining hours
- Better metallic yield
- Improving the grain structure
- Directional flow that enables the improvement of impact and mechanical resistance properties

It is a manufacturing process where metals is modeled by applying pressure. ASTM forged carbon steel grade A-105 is a low carbon, manganese and silicon containing steel.



DIMENSIONS

FLANGED CLASS 150



VALVE MATERIAL LIST		
No.	DESCRIPTION	MATERIAL
1	BODY	ASTM A-105N
2	SEAT RING	ASTM A-182 Gr. F6A + STL #6
3	WEDGE	ASTM A-182 Gr. F6A
4	STEM	ASTM A-182 Gr. F6A
5	BODY SEAL	SS304 + GRAPHITE
6	BONNET	ASTM A-105N
7	BODY BOLT	ASTM A-193 Gr. B7M
8	STEM PACKING	GRAPHITE
9	PIN	ASTM A-276 Gr. 410
10	GLAND BOLT	ASTM A-193 Gr. B7M
11	SLEEVE	ASTM A-276 Gr. 410
12	GLAND FLANGE	ASTM A-105N
13	GLAND NUT	ASTM A-194 Gr. 2HM
14	STEM NUT	ASTM A-276 Gr. 410
15	HANDWHEEL	ASTM A-47
16	HANDWHEEL NUT	ASTM A-29

VALVE DIMENSIONS & WEIGHTS															
MODEL	SIZE		L	H (CLOSE)	W	D	D1	D2	D3	d	b	f	z-Ød	WEIGHT (KG)	TORQUE (LBS-INCH)
1128F-04	1/2"	DN15	4.25	5.12	3.94	3.55	2.38	1.38	0.50	0.41	0.38	0.06	4-0.63	2.63	443.25
1128F-05	3/4"	DN20	4.61	5.32	3.94	3.94	2.76	1.69	0.75	0.54	0.44	0.06	4-0.63	3.31	443.25
1128F-06	1"	DN25	5.00	6.30	4.93	4.33	3.13	2.00	1.00	0.71	0.50	0.06	4-0.63	5.16	531.90
1128F-07	1-1/4"	DN32	5.52	7.29	6.30	4.53	3.50	2.50	1.25	0.91	0.57	0.06	4-0.63	7.64	753.53
1128F-08	1-1/2"	DN40	6.50	8.27	6.30	4.93	3.88	2.88	1.50	1.15	0.63	0.06	4-0.63	9.14	753.53
1128F-09	2"	DN50	7.00	9.65	7.09	5.91	4.76	3.63	2.00	1.42	0.69	0.06	4-0.75	13.88	975.15

*WEIGHT IS ESTIMATED

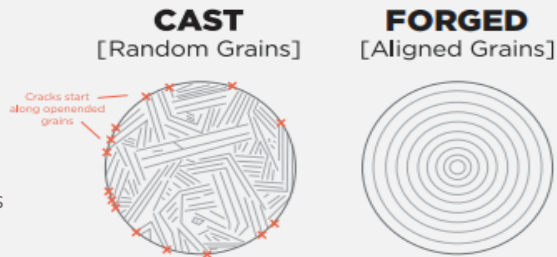
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FORGED STEEL ADVANTAGES

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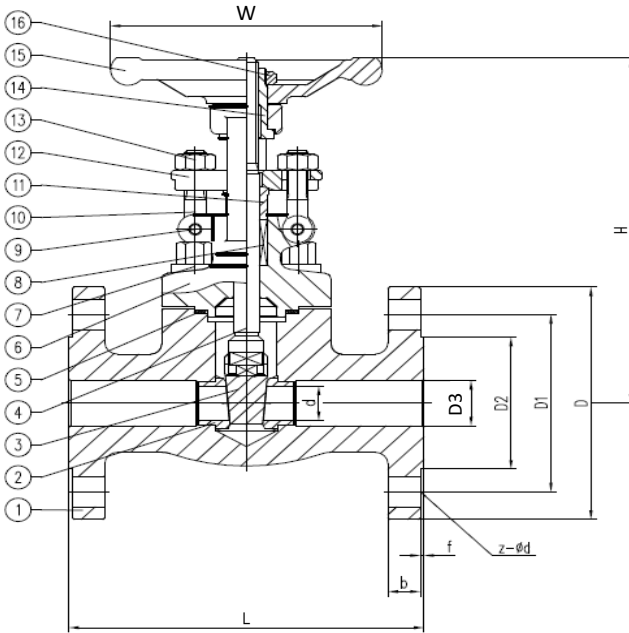
- Saving machining hours
- Better metallic yield
- Improving the grain structure
- Directional flow that enables the improvement of impact and mechanical resistance properties

It is a manufacturing process where metals is modeled by applying pressure. ASTM forged carbon steel grade A-105 is a low carbon, manganese and silicon containing steel.



DIMENSIONS

FLANGED CLASS 300



VALVE MATERIAL LIST

No.	DESCRIPTION	MATERIAL
1	BODY	ASTM A-105N
2	SEAT RING	ASTM A-182 Gr. F6A + STL #6
3	WEDGE	ASTM A-182 Gr. F6A
4	STEM	ASTM A-182 Gr. F6A
5	BODY SEAL	SS304 + GRAPHITE
6	BONNET	ASTM A-105N
7	BODY BOLT	ASTM A-193 Gr. B7M
8	STEM PACKING	GRAPHITE
9	PIN	ASTM A-276 Gr. 410
10	GLAND BOLT	ASTM A-193 Gr. B7M
11	SLEEVE	ASTM A-276 Gr. 410
12	GLAND FLANGE	ASTM A-105N
13	GLAND NUT	ASTM A-194 Gr. 2HM
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16	HANDWHEEL NUT	ASTM A-29

VALVE DIMENSIONS & WEIGHTS

MODEL	SIZE		L	H (CLOSE)	W	D	D1	D2	D3	d	b	f	z-Ød	WEIGHT (KG)	TORQUE (LBS-INCH)
1128F-04	1/2"	DN15	5.51	5.12	3.94	3.74	2.63	1.38	0.50	0.41	0.50	0.06	4-0.63	3.38	443.25
1128F-05	3/4"	DN20	5.98	5.32	3.94	4.53	3.25	1.69	0.75	0.54	0.56	0.06	4-0.75	4.64	443.25
1128F-06	1"	DN25	6.50	6.30	4.93	4.92	3.50	2.00	1.00	0.71	0.62	0.06	4-0.75	6.74	531.90
1128F-07	1-1/4"	DN32	7.00	7.29	6.30	5.31	3.87	2.50	1.25	0.91	0.69	0.06	4-0.75	9.42	753.53
1128F-08	1-1/2"	DN40	7.48	8.27	6.30	6.10	4.50	2.88	1.50	1.15	0.75	0.06	4-0.87	11.88	753.53
1128F-09	2"	DN50	8.50	9.65	7.09	6.50	5.00	3.63	2.00	1.42	0.81	0.06	8-0.75	16.64	975.15

*WEIGHT IS ESTIMATED

*DIMENSIONS ARE EXPRESSED IN INCHES

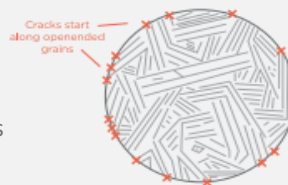
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CAST
[Random Grains]



FORGED
[Aligned Grains]

