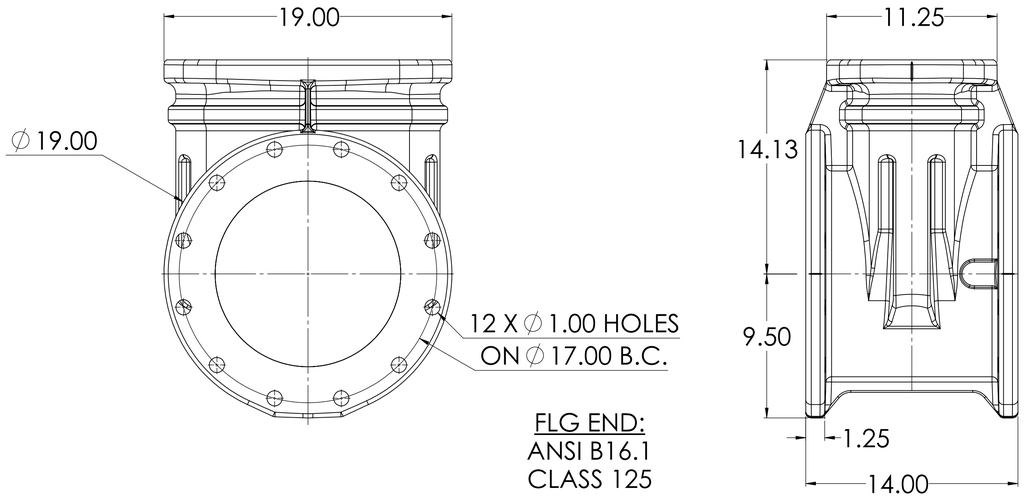
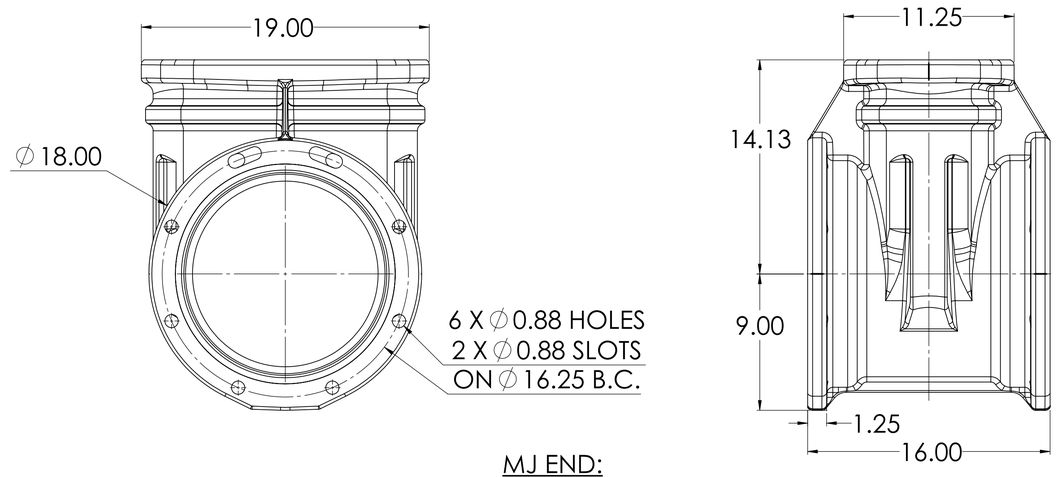
12" C509 FLG X FLG



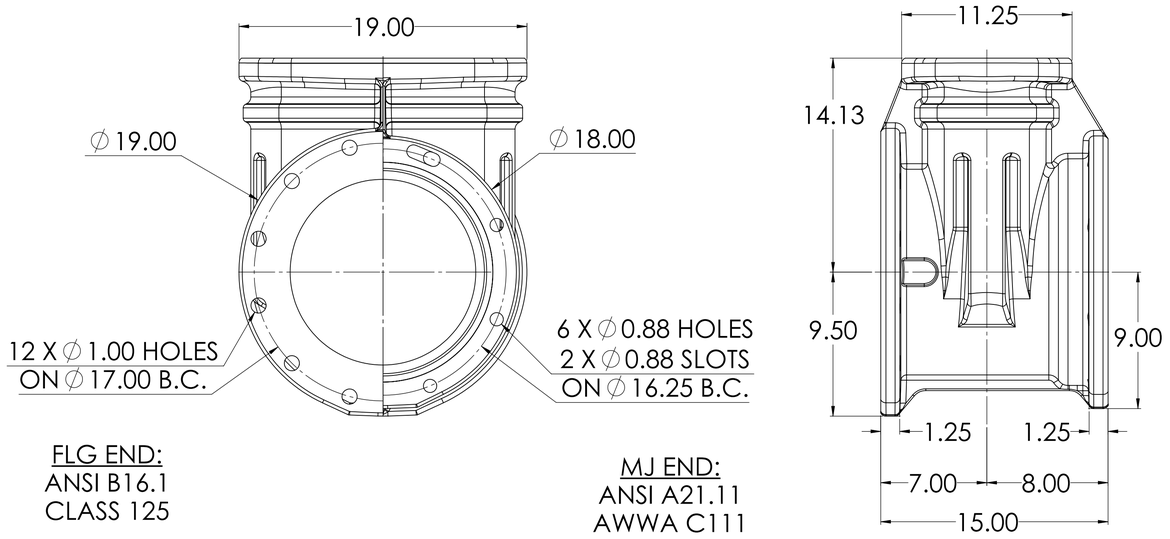
FLG END:
ANSI B16.1
CLASS 125

12" C509 MJ X MJ



MJ END:
ANSI A21.11
AWWA C111

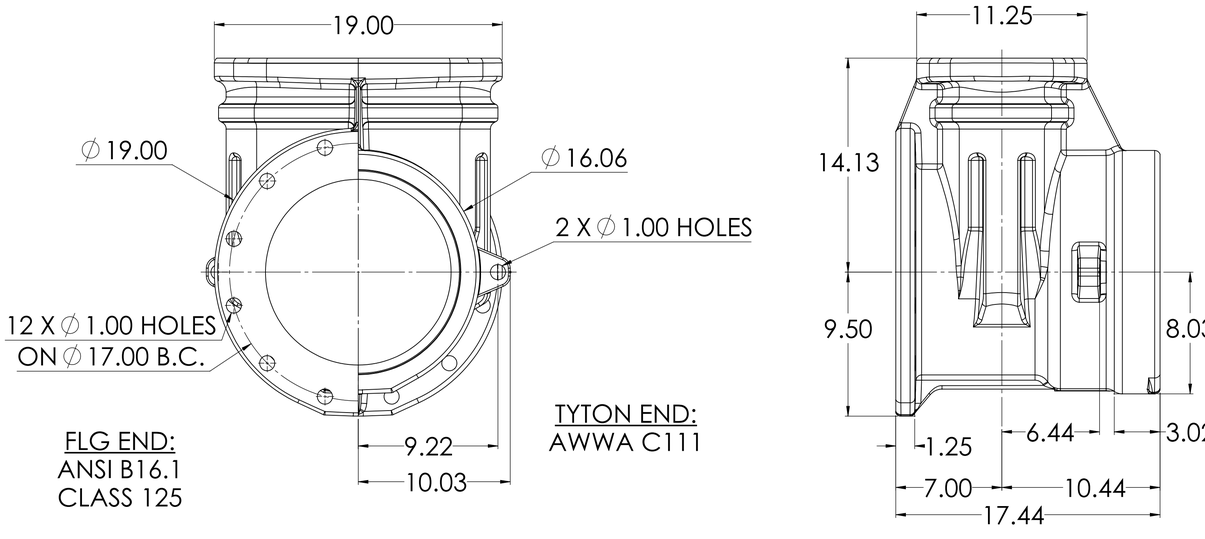
12" C509 FLG X MJ



FLG END:
ANSI B16.1
CLASS 125

MJ END:
ANSI A21.11
AWWA C111

12" C509 FLG X TYTON



FLG END:
ANSI B16.1
CLASS 125

TYTON END:
AWWA C111

THIRD ANGLE PROJECTION
STANDARDS: ANSI/ASME Y14.100, Y14.5M, AND Y14.41
TOLERANCES AS FOLLOWS UNLESS OTHERWISE SPECIFIED:

CASTING TOLERANCES	
0-4":	± 1/32"
4-8":	± 3/64"
8-12":	± 1/16"
12-18":	± 3/32"
18-UP":	± 1/8"
MIN RADIUS:	1/8"
MIN DRAFT:	2°

MACHINED DIMENSIONS	
DECIMALS:	± 0.005
FRACTIONS:	± 1/64
ANGLES:	± 1°
SURFACE FINISH:	125 µin
RADII:	1/8"

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MATERIAL:
ESTIMATED WEIGHT: LBS.

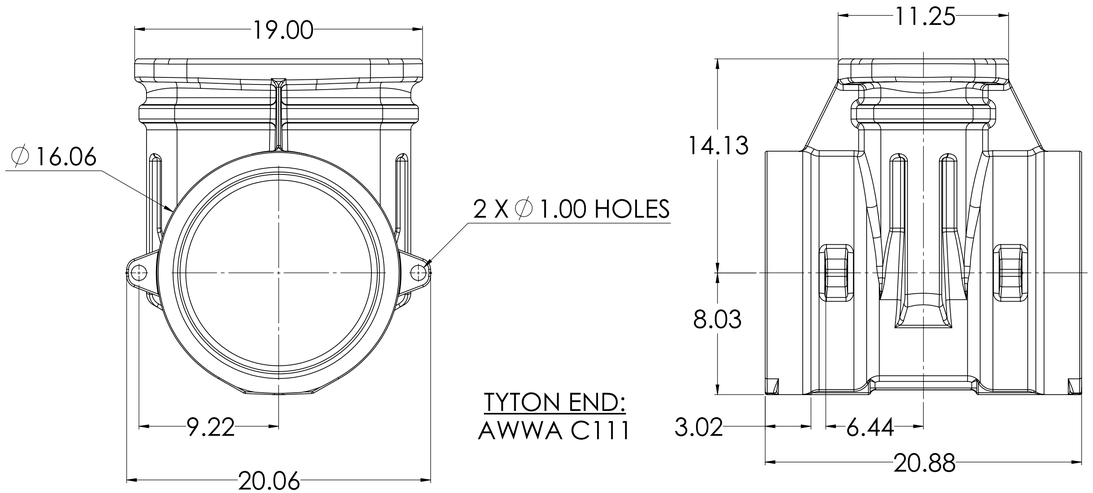
DRAWING NO.:
REVISED BY:
REVISION: C
DESCRIPTION: 12" C509 NRS GEARED RESILIENT WEDGE GATE VALVE

DRW BY:	DATE DRAWN:	CHK. BY:	CHK. DATE:
CW	12/2/2020		

SHEET SCALE: 1:5
SOLIDWORKS VERSION: Solidworks 2018 SP2
SHEET OF: 1 7
SHEET SIZE: D

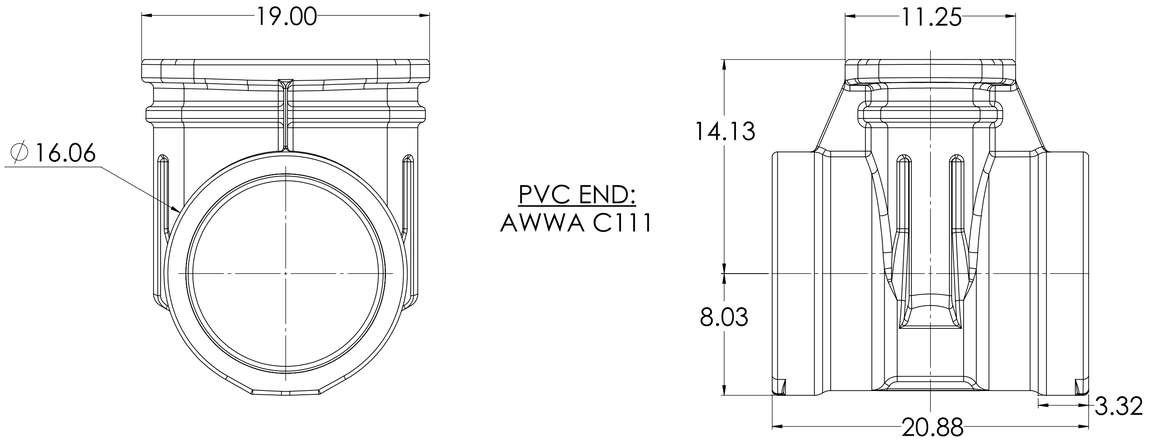
CLOW VALVE CO.

12" C509 TYTON X TYTON



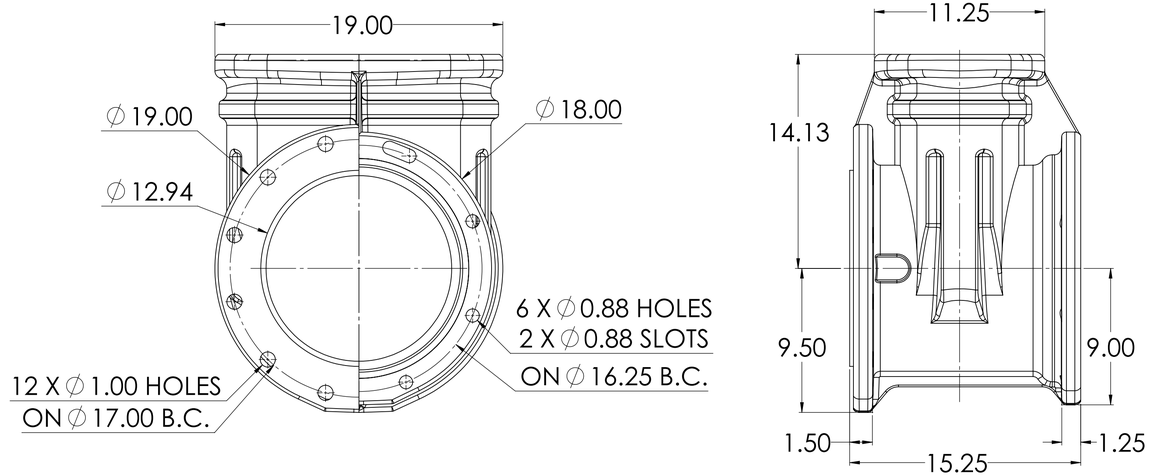
TYTON END:
AWWA C111

12" C509 PVC X PVC



PVC END:
AWWA C111

12" C509 MJ X TAP

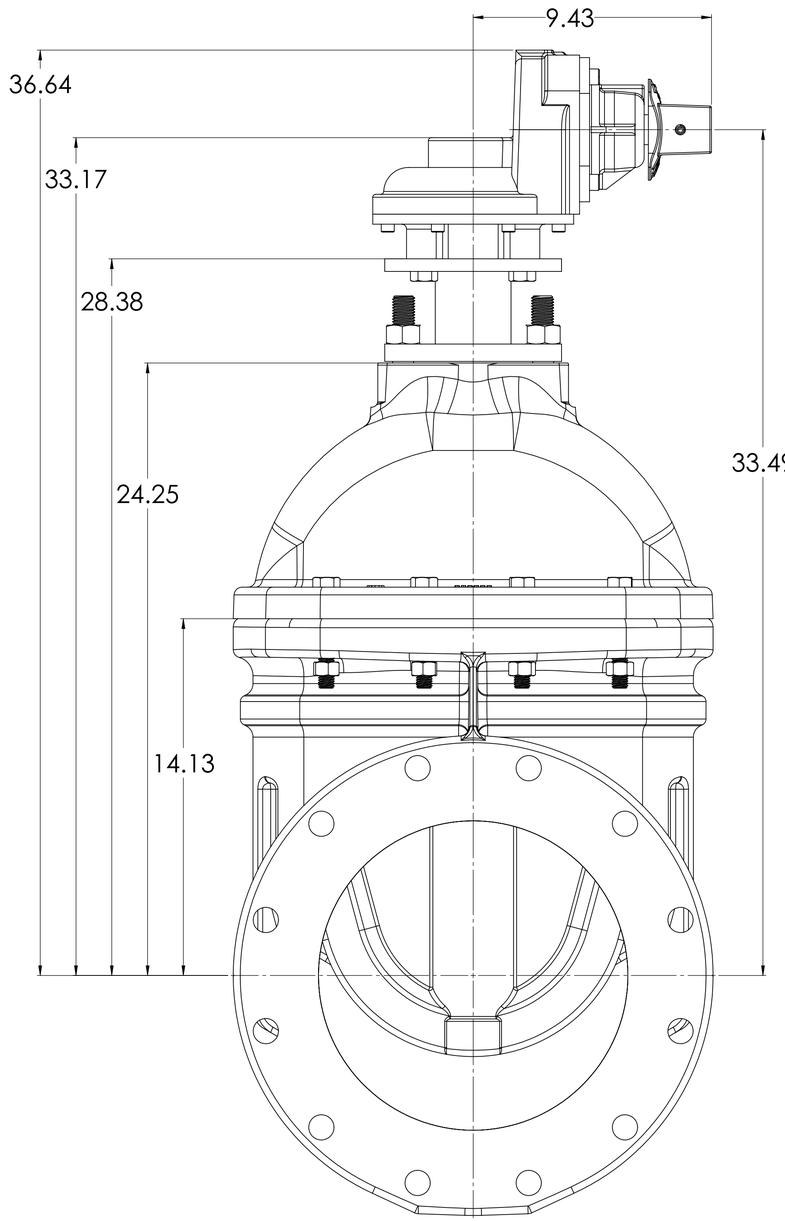


TAP END:
ANSI B16.1
CLASS 125

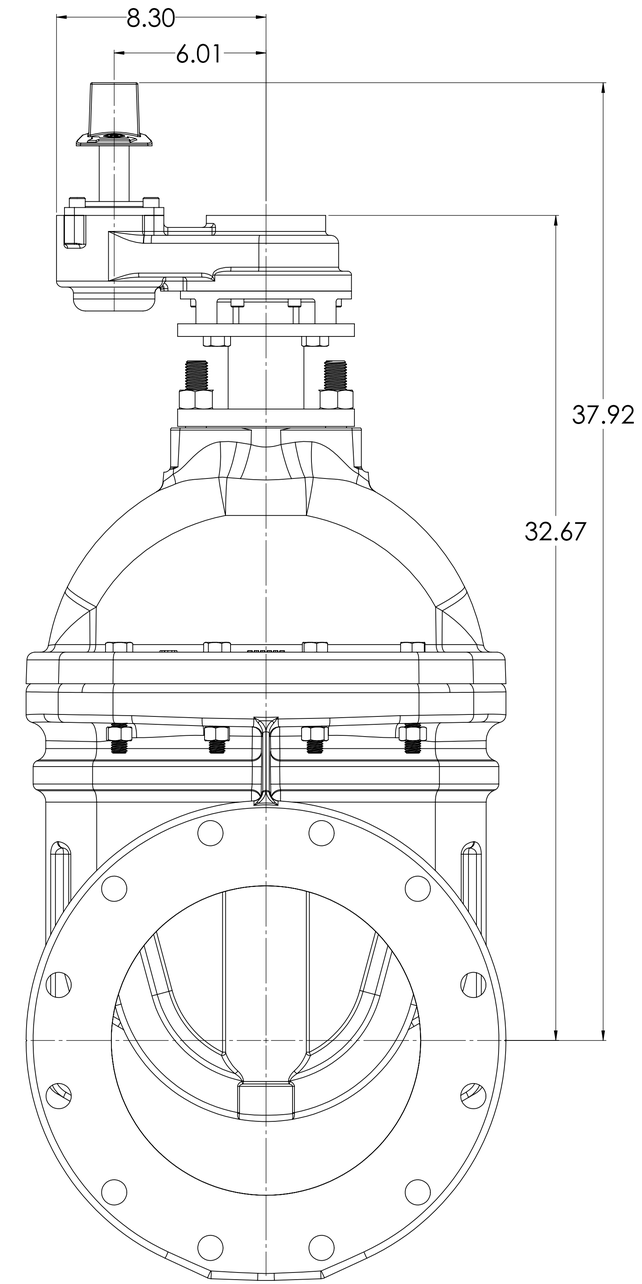
MJ END:
ANSI A21.11
AWWA C111

THIRD ANGLE PROJECTION. STANDARDS: ANSI/ASME Y14.100, Y14.5M, AND Y14.41 TOLERANCES AS FOLLOWS UNLESS OTHERWISE SPECIFIED:		PROPERTY OF MCWANE CORPORATION. ALL MODELS AND DERIVITIVE DOCUMENTATION ARE PROPRIETARY TO MCWANE CORPORATION AND ITS SUBSIDIARIES. ANY REPRODUCTION OR USE OTHER THAN THAT OF DIRECTED USE UNLESS OTHERWISE ARRANGED. ALL RIGHTS RESERVED.	DESIGN PKG:	DRAWING PKG:	CLOW VALVE CO.
CASTING TOLERANCES: 0-4": ± 1/32" 4-8": ± 3/64" 8-12": ± 1/16" 12-18": ± 3/32" 18-until": ± 1/8" MIN RADIUS: 1/8" MIN DRAFT: 2°	MACHINED DIMENSIONS: DECIMALS: ± 0.005 FRACTIONS: ± 1/64 ANGLES: ± 1° SURFACE FINISH: 125 µin RADII: 1/8"		ITEM REFERENCE	REVISION: C	
		MATERIAL	DESCRIPTION: 12" C509 NRS GEARED RESILIENT WEDGE GATE VALVE		
		ESTIMATED WEIGHT: LBS.			SHEET SIZE: D
		DRW BY: CW	DATE DRAWN: 12/2/2020	CHK. BY:	CHK DATE:
		SHEET SCALE: 1:5	SOFTWARE: Solidworks 2018 SP2		SHEET OF: 2 7

BEVEL GEAR WITH OPERATING NUT



SPUR GEAR WITH OPERATING NUT



THIRD ANGLE PROJECTION
STANDARDS: ANSI/ASME Y14.100, Y14.5M, AND Y14.41
TOLERANCES AS FOLLOWS UNLESS OTHERWISE SPECIFIED.

CASTING TOLERANCES

0-4":	± 1/32"
4-8":	± 3/64"
8-12":	± 1/16"
12-18":	± 3/32"
18-UP":	± 1/8"
MIN RADIUS:	1/8"
MIN DRAFT:	2°

MACHINED DIMENSIONS

DECIMALS:	± 0.005
FRACTIONS:	± 1/64
ANGLE:	± 1°
SURFACE FINISH:	125 µin
RADII:	1/8"

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ALL RIGHTS RESERVED.

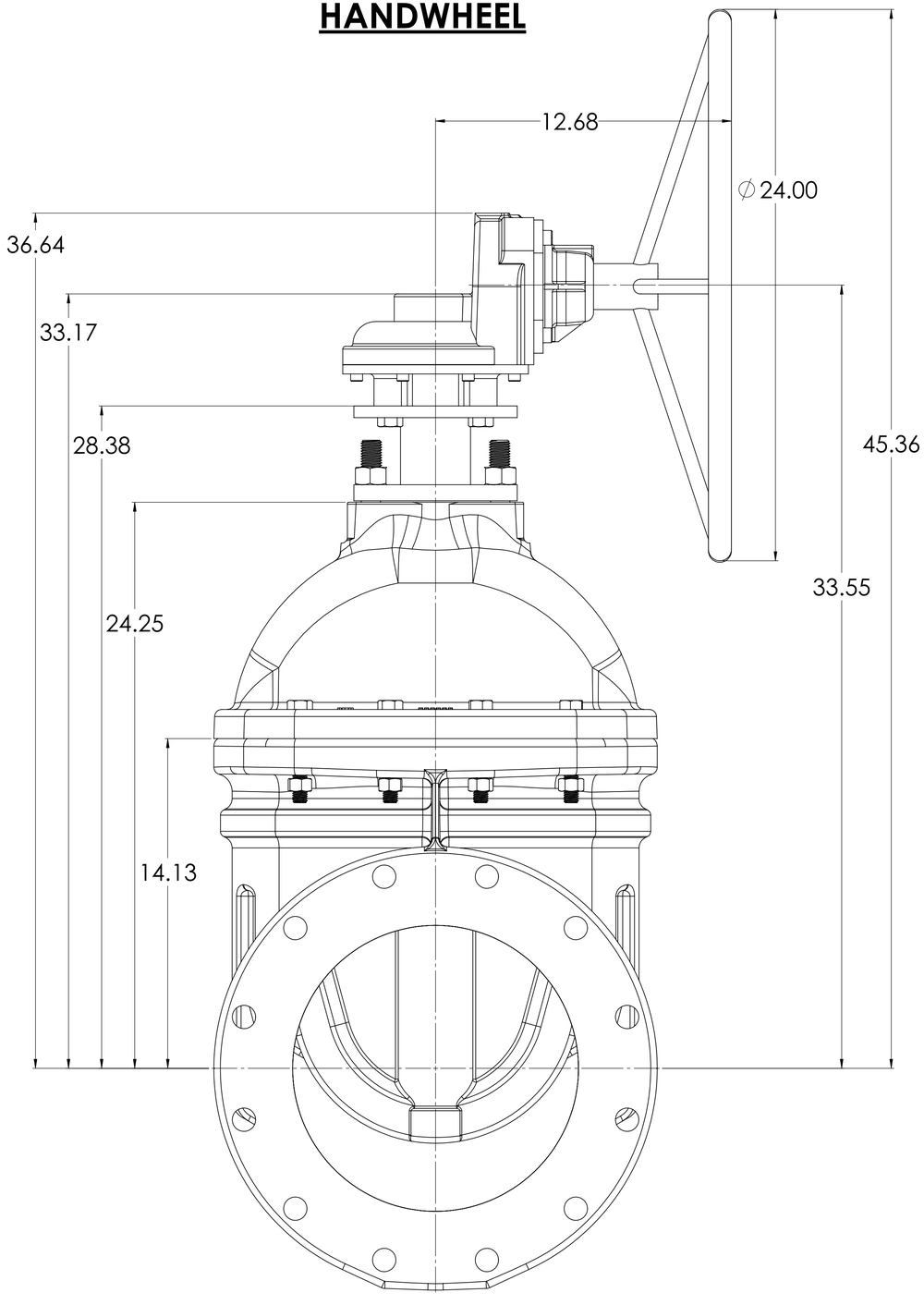
LEGACY NO.:	SHEET PI NO.:
PI REFERENCE:	REVISION: C
MATERIAL:	DESCRIPTION: 12" C509 NRS GEARED RESILIENT WEDGE GATE VALVE
ESTIMATED WEIGHT:	LBS.
DRW BY: CW	DATE DRAWN: 12/2/2020
CHK. BY:	CHK. DATE:
SHEET SCALE: 1:10	SOFTWARE USED: Solidworks 2018 SP2

CLOW VALVE CO.

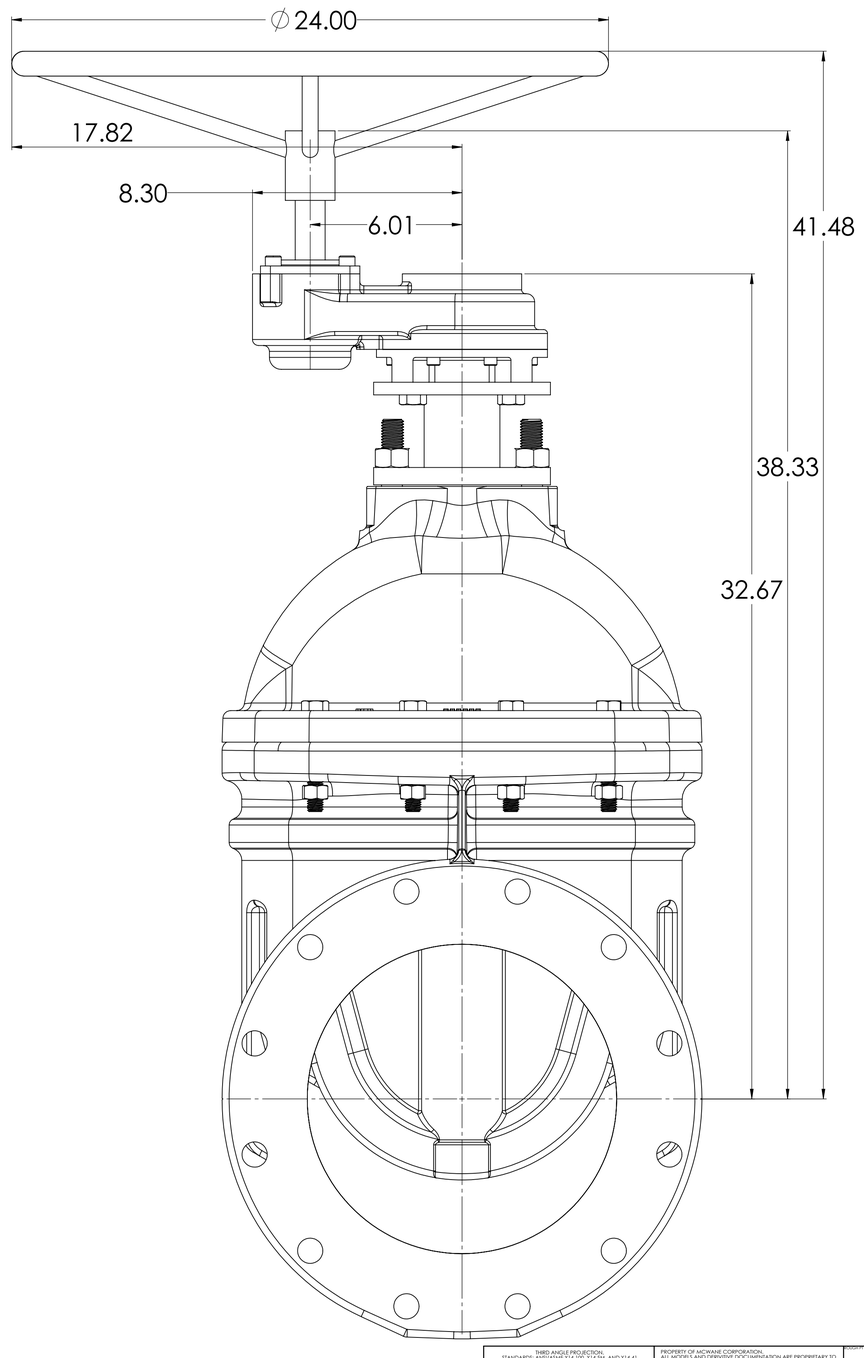
SHEET NO. 3 SHEET OF 7

SHEET SIZE D

BEVEL GEAR WITH HANDWHEEL



SPUR GEAR WITH HANDWHEEL



THIRD ANGLE PROJECTION.
STANDARDS: ANSI Y14.5M-1994, ASME Y14.5M, AND Y14.41.
TOLERANCES AS FOLLOWS UNLESS OTHERWISE SPECIFIED.

CASTING TOLERANCES
0-4": ± 1/32"
4-8": ± 3/64"
8-12": ± 1/16"
12-18": ± 3/32"
18-UP": ± 1/8"
MIN RADIUS: 1/8"
MIN DRAFT: 2°

MACHINED DIMENSIONS
DECIMALS: ± 0.005
FRACTIONS: ± 1/64
ANGLE: ± 1°
SURFACE FINISH: 125 µin
RADII: 1/8"

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DISTRIBUTION REQUIRED UPON COMPLETION OF DIRECTED USE UNLESS OTHERWISE ARRANGED.
ALL RIGHTS RESERVED.

MATERIAL
ESTIMATED WEIGHT LBS.

DRAWN BY: CW | DATE DRAWN: 12/2/2020 | CHK. BY | CHK. DATE:

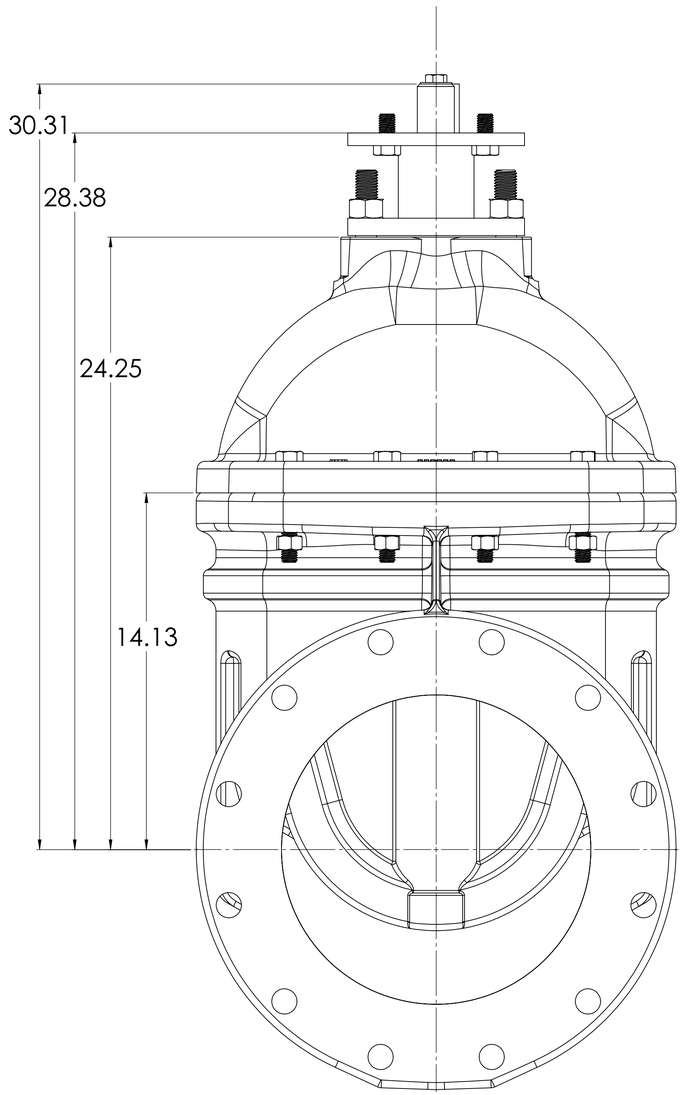
DESCRIPTION: 12" C509 NRS GEARED RESILIENT WEDGE GATE VALVE

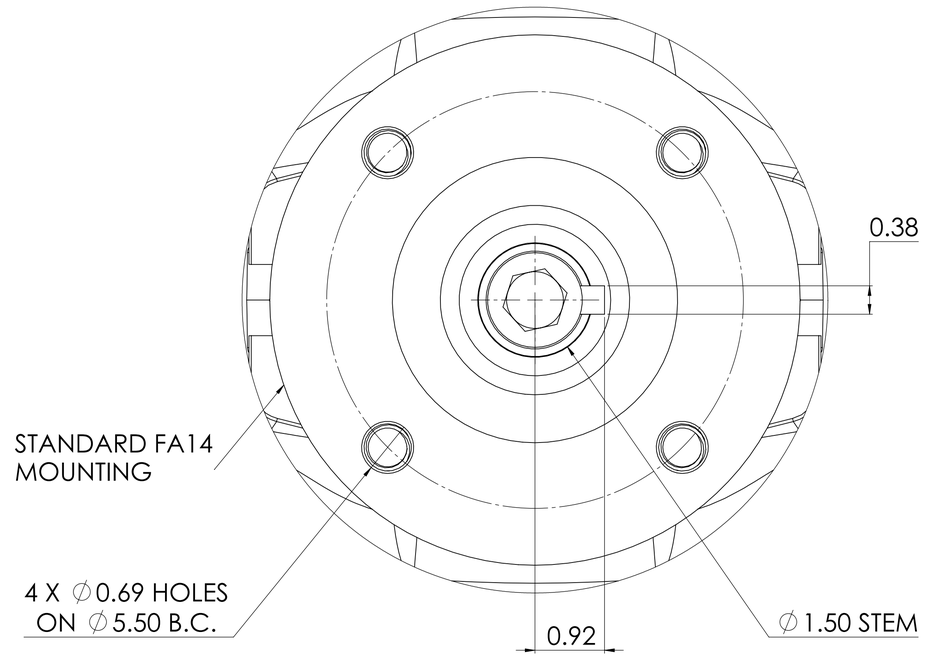
SCALE: 1:10 | SOLIDWORKS: Solidworks 2018 SP2

SHEET 4 OF 7 | SHEET SIZE: D

CLOW VALVE CO.

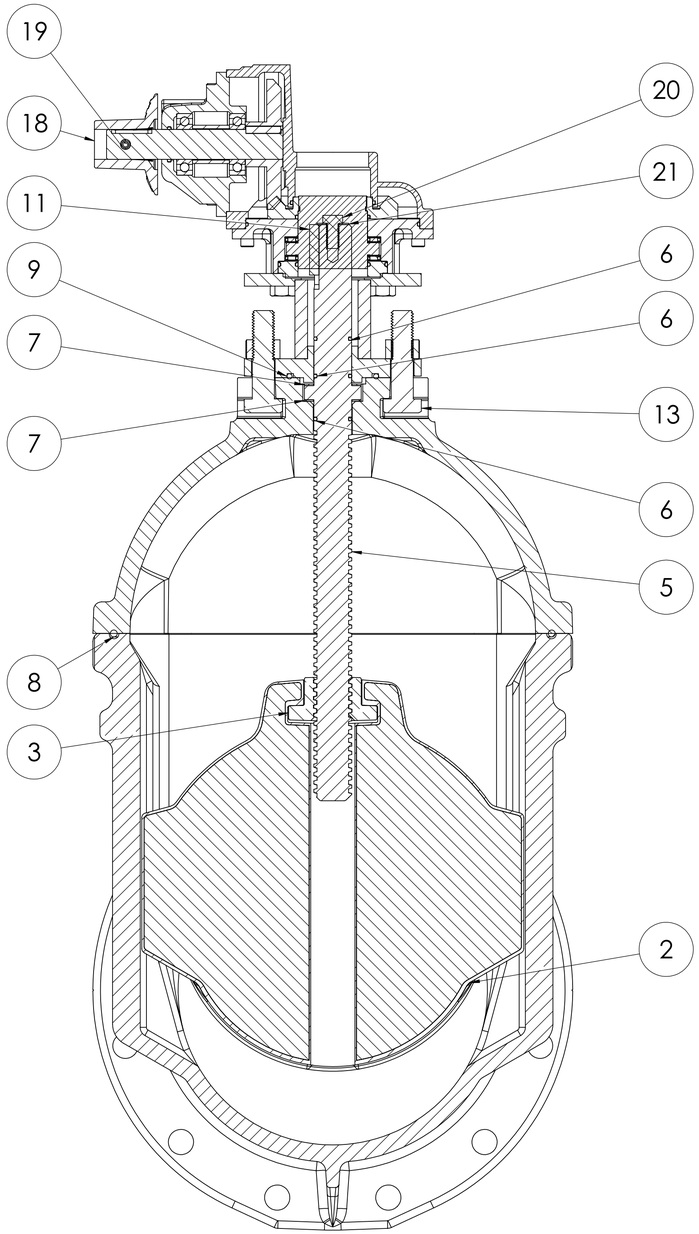
BARE STEM

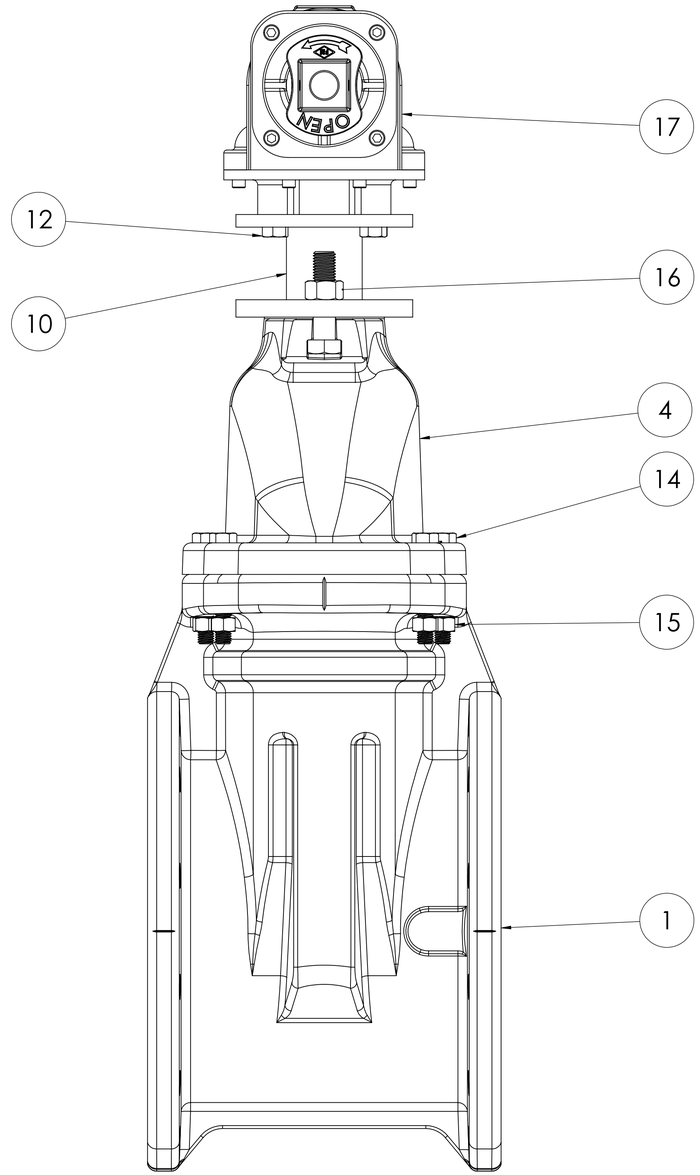




BARE STEM MOUNTING FLG

THIRD ANGLE PROJECTION. STANDARDS: ANSI/ASME Y14.100, Y14.5M, AND Y14.41. TOLERANCES AS FOLLOWS UNLESS OTHERWISE SPECIFIED.		PROPERTY OF MCWANE CORPORATION. ALL MODELS AND DERIVITIVE DOCUMENTATION ARE PROPRIETARY TO MCWANE CORPORATION. REPRODUCTION OR DISTRIBUTION REQUIRED UPON COMPLETION OF DIRECTED USE UNLESS OTHERWISE ARRANGED. ALL RIGHTS RESERVED.	LOCATION NO.	ISSUED BY NO.	CLOW VALVE CO.
CASTING TOLERANCES	MACHINED DIMENSIONS				
0-4": ± 1/32"	DECIMALS: ± 0.005	MATERIAL	DESCRIPTION		
4-8": ± 3/64"	FRACTIONS: ± 1/64		12" C509 NRS GEARED RESILIENT		
8-12": ± 1/16"	ANGLE: ± 1°	ESTIMATED WEIGHT	WEDGE GATE VALVE		
12-18": ± 3/32"	SURFACE FINISH: 125 µin	LBS.			
18-UP": ± 1/8"	RADII: 1/8"	DRW BY: CW	DATE DRAWN: 12/2/2020	CHK. BY	CHK. DATE
MIN RADIUS: 1/8"					
MIN DRAFT: 2°					
		SCALE/SIZE: 1:10	SOFTWARE USED: Solidworks 2018 SP2	SHEET OF 5 7	SHEET SIZE D





THIRD ANGLE PROJECTION
STANDARDS: ANSI/ASME Y14.100, Y14.5M, AND Y14.41
TOLERANCES AS FOLLOWS UNLESS OTHERWISE SPECIFIED:

CASTING TOLERANCES
0-4": ± 1/32"
4-8": ± 3/64"
8-12": ± 1/16"
12-18": ± 3/32"
18-UP": ± 1/8"
MIN RADIUS: 1/8"
MIN DRAFT: 2°

MACHINED DIMENSIONS
DECIMALS: ± 0.005
FRACTIONS: ± 1/64
ANGLE: ± 1°
SURFACE FINISH: 125 µin
RADII: 1/8"

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ALL RIGHTS RESERVED.

MATERIAL:
ESTIMATED WEIGHT: LBS.

DRW BY: CW
DATE DRAWN: 12/2/2020
CHK. BY:
CHK. DATE:

DRAWING NO.:
REVISED TO:
P. REFERENCE:
REVISION: C

12" C509 NRS GEARED RESILIENT WEDGE GATE VALVE

SHEET SCALE: 1:10
SOLIDWORKS VERSION: Solidworks 2018 SP2

CLOW VALVE CO.

SHEET OF: 6 / 7
SHEET SIZE: D

ITEM NO.	COMPONENT	QTY.	SIZE	STANDARD MATERIAL	MATERIAL OPTIONS
1	BODY	1	-	DUCTILE IRON	-
2	WEDGE	1	-	EPDM/DUCTILE IRON	-
3	STEM NUT	1	-	C87850	C87610 (LOW ZINC)
4	COVER	1	-	DUCTILE IRON	-
5	STEM	1	-	C36000	C95400 (LOW ZINC), 304 SS, 316 SS
6	O-RING	3	#218	EPDM	-
7	THRUST WASHER	2	-	ACETAL	C26000
8	O-RING	1	#455	EPDM	-
9	O-RING	1	#339	EPDM	-
10	FA14 MOTOR/GEAR MOUNTING BRACKET	1	-	COLD ROLLED STEEL	FA10 AND FA16
11	STEM KEY	1	3/8" X 2"	18-8 SS	-
12	HEX HEAD CAPSCREW	4	5/8"-11 X 1 1/4"	18-8 SS	316 SS
13	HEX HEAD CAPSCREW	2	7/8"-9 X 3 1/2"	18-8 SS	316 SS
14	HEX HEAD CAPSCREW	8	5/8"-11 X 4"	18-8 SS	316 SS
15	HEX NUT	8	5/8"-11	18-8 SS	316 SS
16	HEX NUT	2	7/8"-9	18-8 SS	316 SS
17	BEVEL GEAR	1	-	-	SPUR GEAR
18	OPERATING NUT	1	-	DUCTILE IRON	C86700, ** ∅24" HANDWHEEL**
19	COILED SPRING PIN	1	10mm X 45mm	302/304 SS	-
20	HEX HEAD CAP SCREW	1	1/2"-13 X 1"	18-8 SS	316 SS
21	WASHER	1	1/2"	18-8 SS	316 SS

VALVES CONFORM WITH THE FOLLOWING STANDARDS
- AWWA C509
- NSF 61

- LOW ZINC BRASS STEM AND STEM NUT AVAILABLE
- 100% DOMESTIC FASTENERS AND ORINGS OPTIONS AVAILABLE
- *OPEN LEFT* (COUNTERCLOCKWISE) AND *OPEN RIGHT* (CLOCKWISE) OPTIONS AVAILABLE
- TURNS TO OPEN FROM FULLY CLOSED: 36
- AWWA MAXIMUM ALLOWABLE CLOSING TORQUE 225 FT-LBS
- OPTIONAL HANDWHEEL CAN BE SUBSTITUTED FOR STANDARD 2" SQUARE OP. NUTS.
  - **NOTE: STANDARD HANDWHEEL SIZE LISTED OUT IN PARTS LIST.**
- MAXIMUM PRESSURE RATING 250 PSI

REV.	ECN	DR	DATE
C	ECN 2461	JB	6/25/2025
B	-	CW	12/22/20
A	-	CW	12/2/20

REVISIONS

THIRD ANGLE PROJECTION.
STANDARDS: ANSI/ASME Y14.100, Y14.5M, AND Y14.41.
TOLERANCES AS FOLLOWS UNLESS OTHERWISE SPECIFIED.

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CASTING TOLERANCES		MACHINED DIMENSIONS	
0-4":	± 1/32"	DECIMALS:	± 0.005
4-8":	± 3/64"	FRACTIONS:	± 1/64"
8-12":	± 1/16"	ANGLES:	± 1°
12-18":	± 3/32"	SURFACE FINISH:	125 µin
18-until":	± 1/8"	RADII:	1/8"
MIN RADIUS:	1/8"		
MIN DRAFT:	2°		

MATERIAL:

ESTIMATED WEIGHT: LBS.

DESCRIPTION: 12" C509 NRS GEARED RESILIENT WEDGE GATE VALVE

DRW BY: CW | DATE DRAWN: 12/2/2020 | CHK. BY: | CHK DATE:

DRAWING NO.: | REVISED TO: C | REFERENCE: | APPROVED:

SHEET SIZE: 1:10 | CAD: Solidworks 2018 SP2 | SHEET 7 OF 7 | D

CLOW VALVE CO.