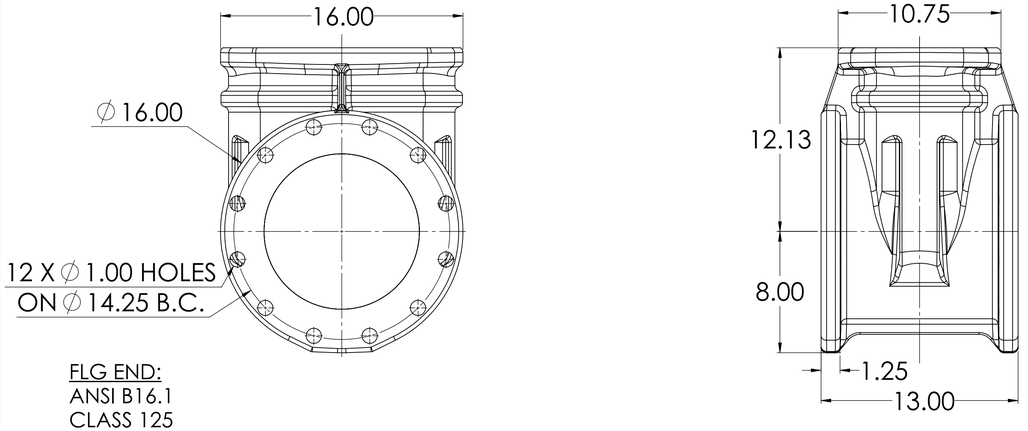
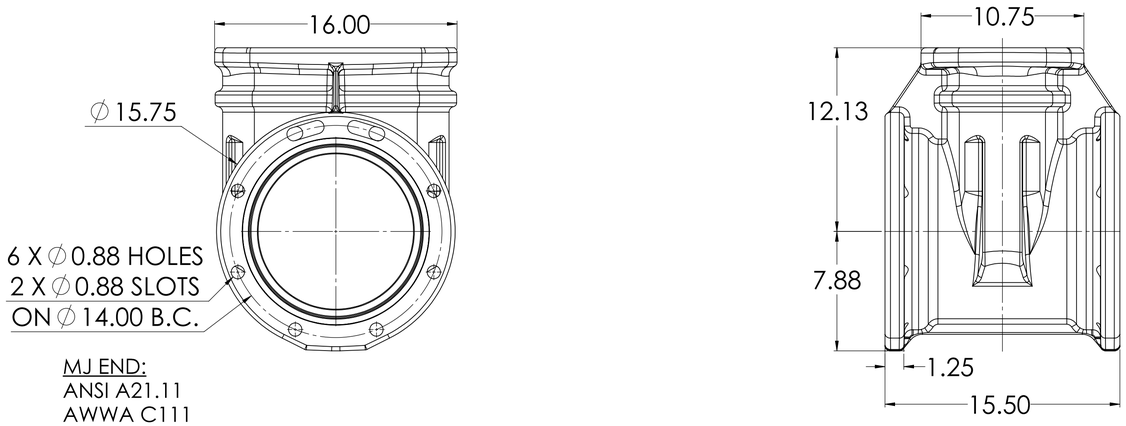
10" C509 FLG X FLG



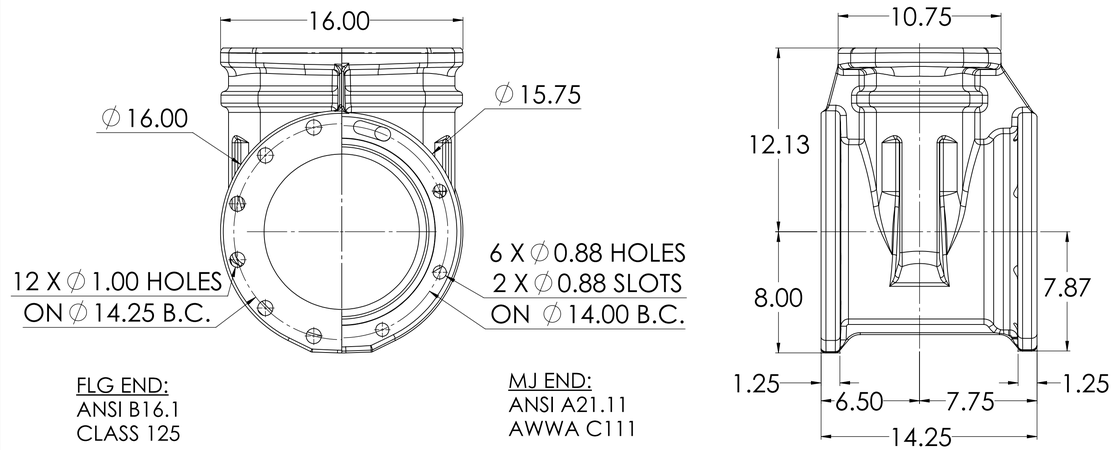
FLG END:
ANSI B16.1
CLASS 125

10" C509 MJ X MJ



MJ END:
ANSI A21.11
AWWA C111

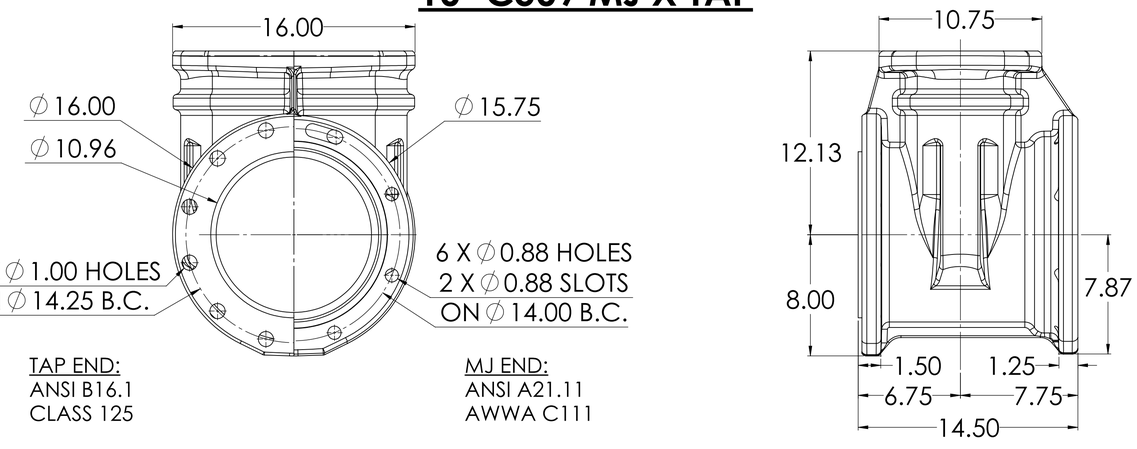
10" C509 FLG X MJ



FLG END:
ANSI B16.1
CLASS 125

MJ END:
ANSI A21.11
AWWA C111

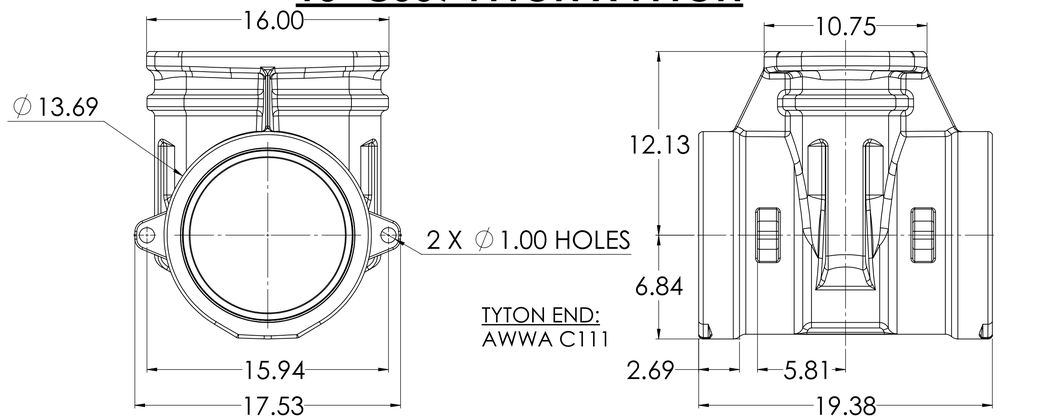
10" C509 MJ X TAP



TAP END:
ANSI B16.1
CLASS 125

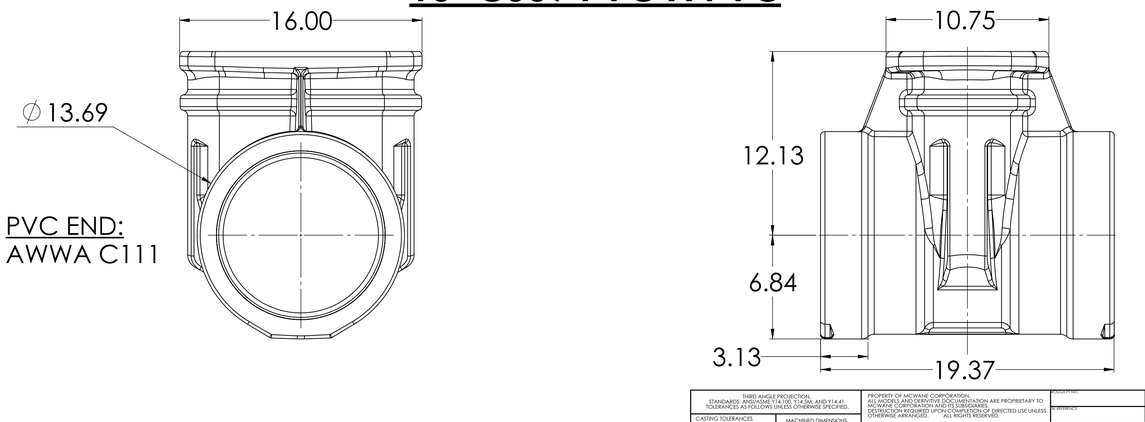
MJ END:
ANSI A21.11
AWWA C111

10" C509 TYTON X TYTON



TYTON END:
AWWA C111

10" C509 PVC X PVC



PVC 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
ANGLE: ± 1°
SURFACE FINISH: 125 µin
RADII: 1/8"

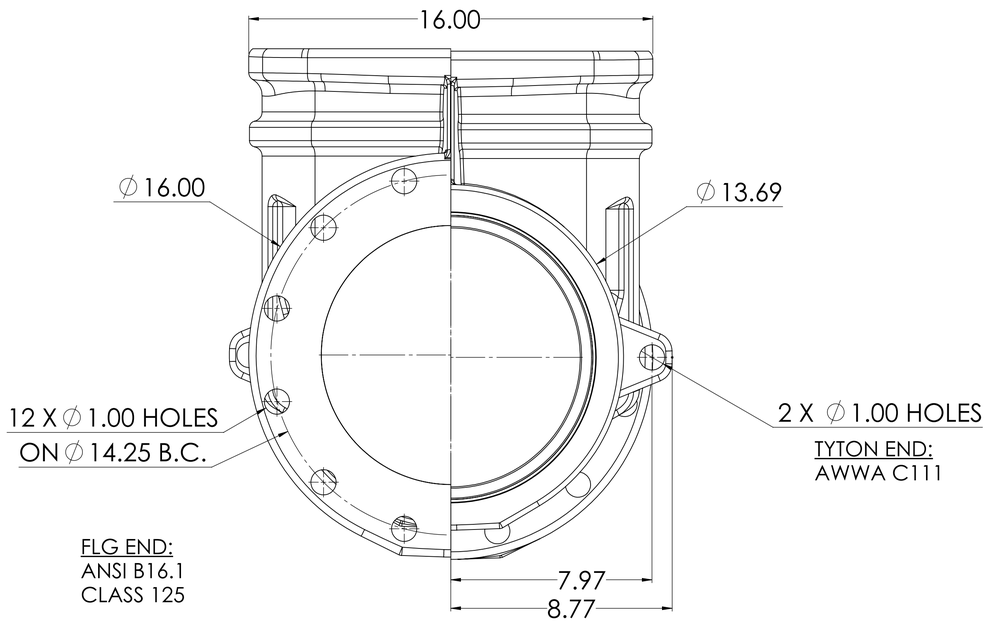
PROPERTY OF MCWANE CORPORATION.
ALL MODELS AND DERIVITIVE DOCUMENTATION ARE PROPRIETARY TO MCWANE CORPORATION AND ITS SUBSIDIARIES.
THEY ARE NOT TO BE USED UPON ANY PROJECT OR FOR DIRECTED USE UNLESS OTHERWISE ARRANGED. ALL RIGHTS RESERVED.

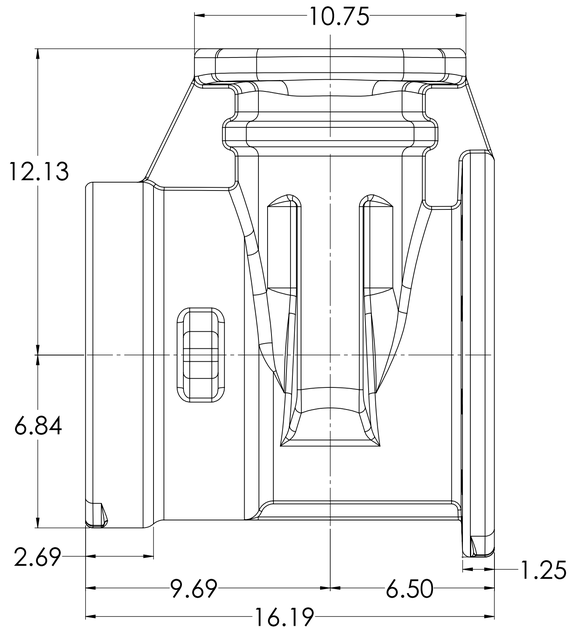
MATERIAL:
ESTIMATED WEIGHT: LBS.
DRW BY: CW
DATE DRAWN: 12/2/2020
CHK. BY:
CHK DATE:

DESCRIPTION: 10" C509 NRS GEARED RESILIENT WEDGE GATE VALVE
SHEET SCALE: 1:5
SOLIDWORKS: Solidworks 2018 SP2
SHEET 1 OF 7
SIZE: D

CLOW VALVE CO.

10" C509 FLG X TYTON





THIRD ANGLE PROJECTION.
STANDARDS: ANSI Y14.5 (GD&T), ASME Y14.100, 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"

PROPERTY OF MCWANE CORPORATION.
ALL WORDS AND GRAPHITIVE DOCUMENTATION ARE PROPRIETARY TO MCWANE CORPORATION AND ITS SUBSIDIARIES.
DISTRIBUTION REQUIRED UPON COMPLETION OF DIRECTED USE UNLESS OTHERWISE ARRANGED.
ALL RIGHTS RESERVED.

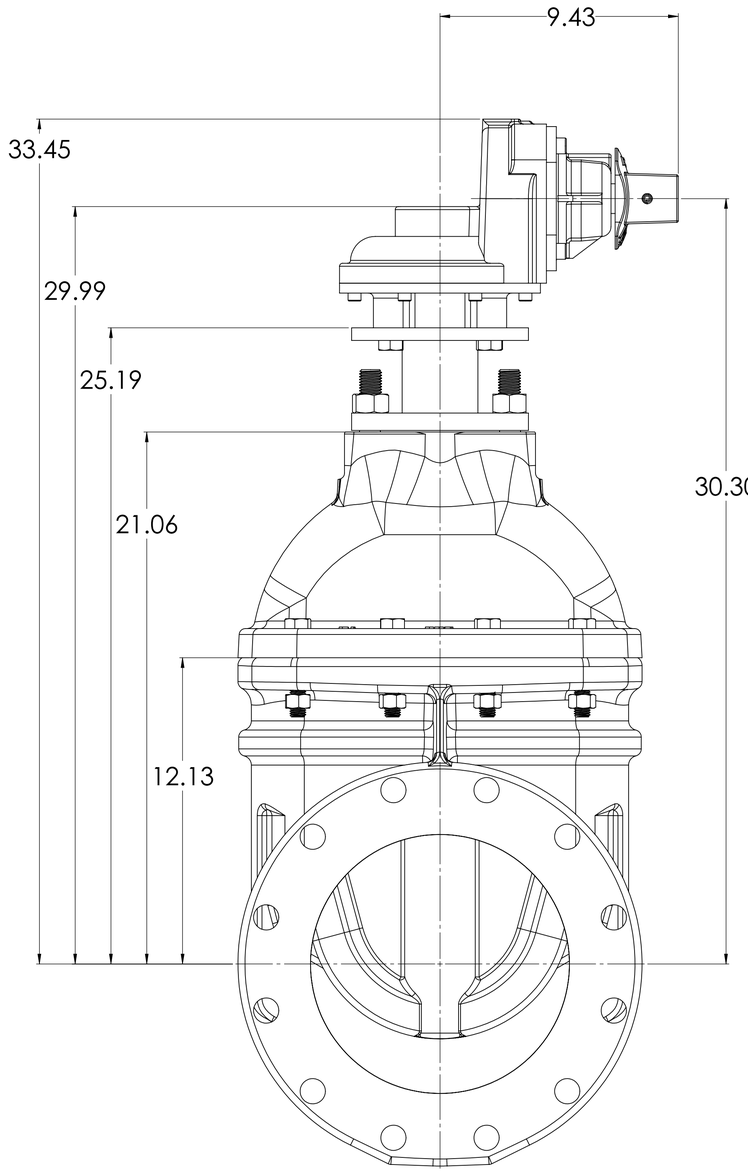
MATERIAL:
ESTIMATED WEIGHT: LBS.

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

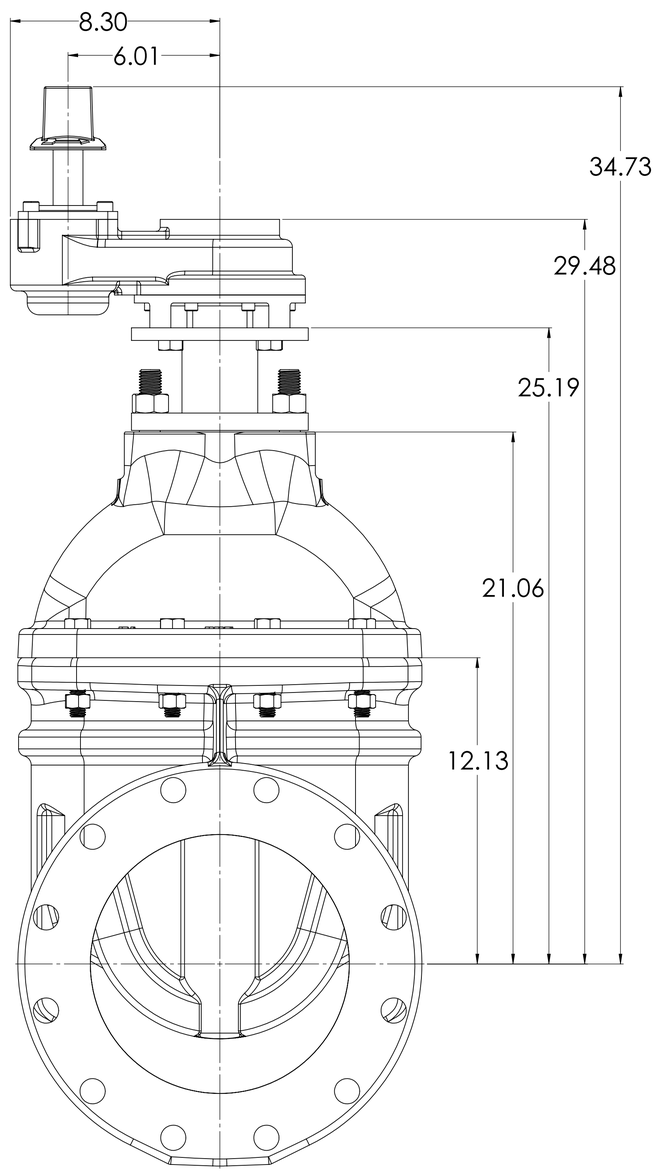
DESCRIPTION: 10" C509 NRS GEARED RESILIENT WEDGE GATE VALVE
DRAWING NO.:
REVISION: D
SHEET SIZE: D
SHEET SCALE: 1:5
SOLIDWORKS: Solidworks 2018 SP2
SHEET 2 OF 7

CLOW VALVE CO.

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"

PROPERTY OF MCWANE CORPORATION.
ALL MODELS AND DERIVATIVE DOCUMENTATION ARE PROPRIETARY TO MCWANE CORPORATION AND ITS SUBSIDIARIES. DISTRIBUTION REQUIRED UPON COMPLETION OF DIRECTED USE UNLESS OTHERWISE ANNOUNCED.
ALL RIGHTS RESERVED.

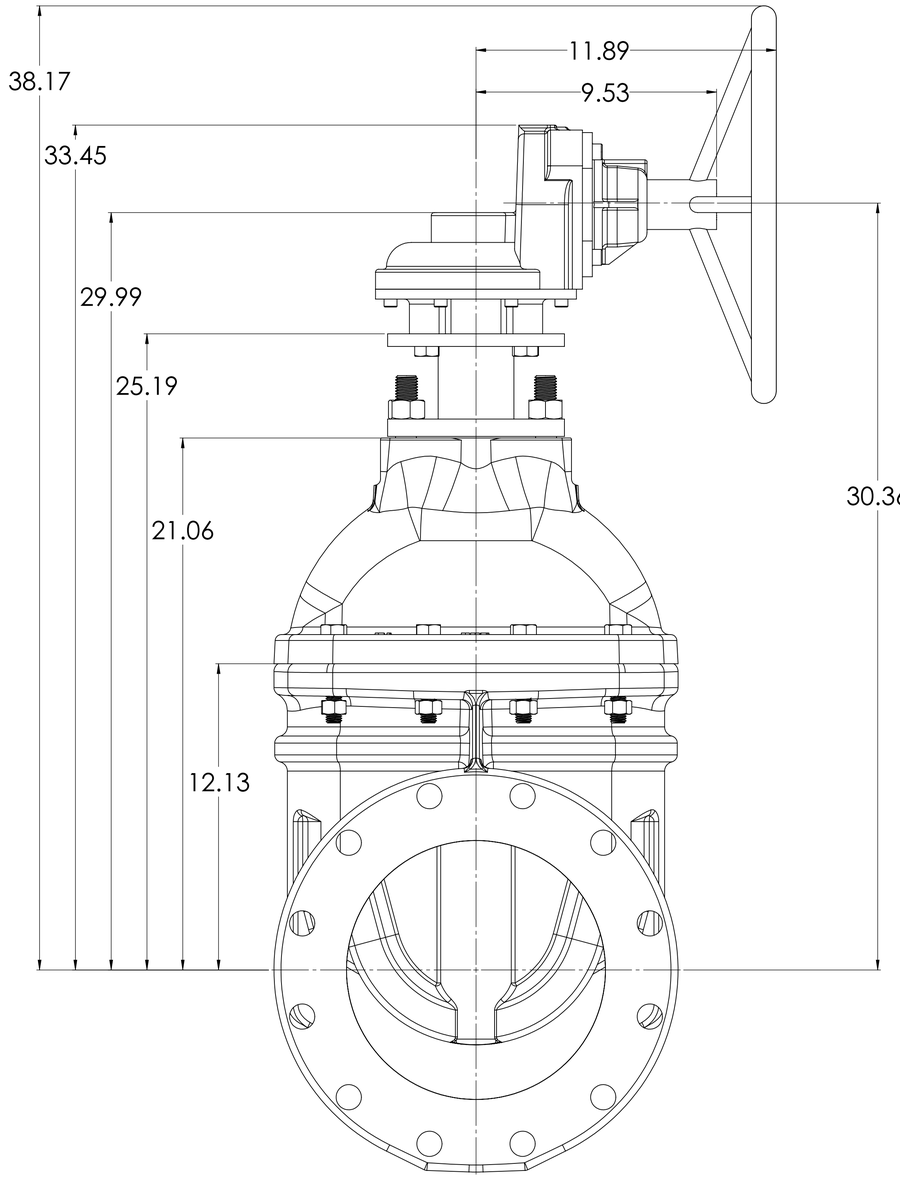
MATERIAL:
ESTIMATED WEIGHT: LBS.

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

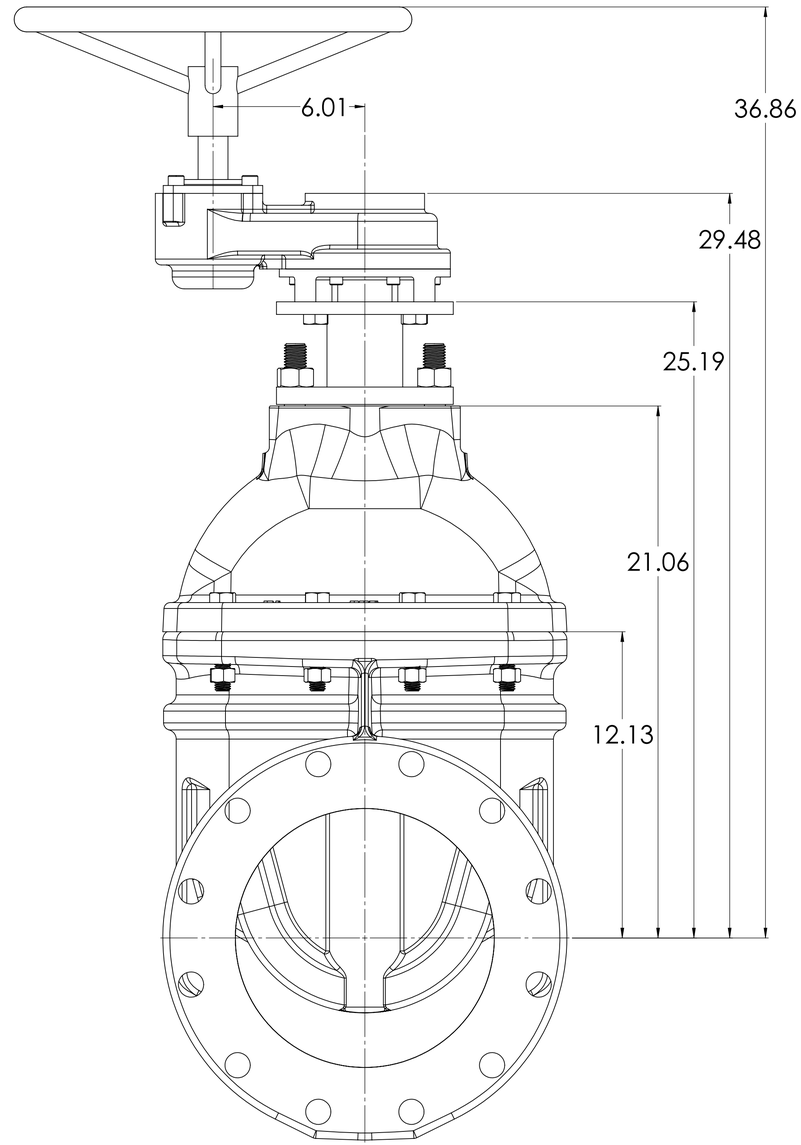
DRAWING NO.:
PART NO.:
REVISION: D
SIZE: D
10" C509 NRS GEARED RESILIENT WEDGE GATE VALVE
SHEET SCALE: 1:5
SOLIDWORKS: Solidworks 2018 SP2
SHEET 3 OF 7

CLOW VALVE CO.

BEVEL GEAR WITH HANDWHEEL



SPUR GEAR WITH HANDWHEEL



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"

PROPERTY OF MCWANE CORPORATION.
ALL MODELS AND DERIVATIVE DOCUMENTATION ARE PROPRIETARY TO MCWANE CORPORATION AND ITS SUBSIDIARIES. DISTRIBUTION REQUIRED UPON COMPLETION OF DIRECTED USE UNLESS OTHERWISE ANNOUNCED.
ALL RIGHTS RESERVED.

MATERIAL:
ESTIMATED WEIGHT: LBS.

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

DRAWING NO.:
REVISED NO.:
REFERENCE:
REVISION: D

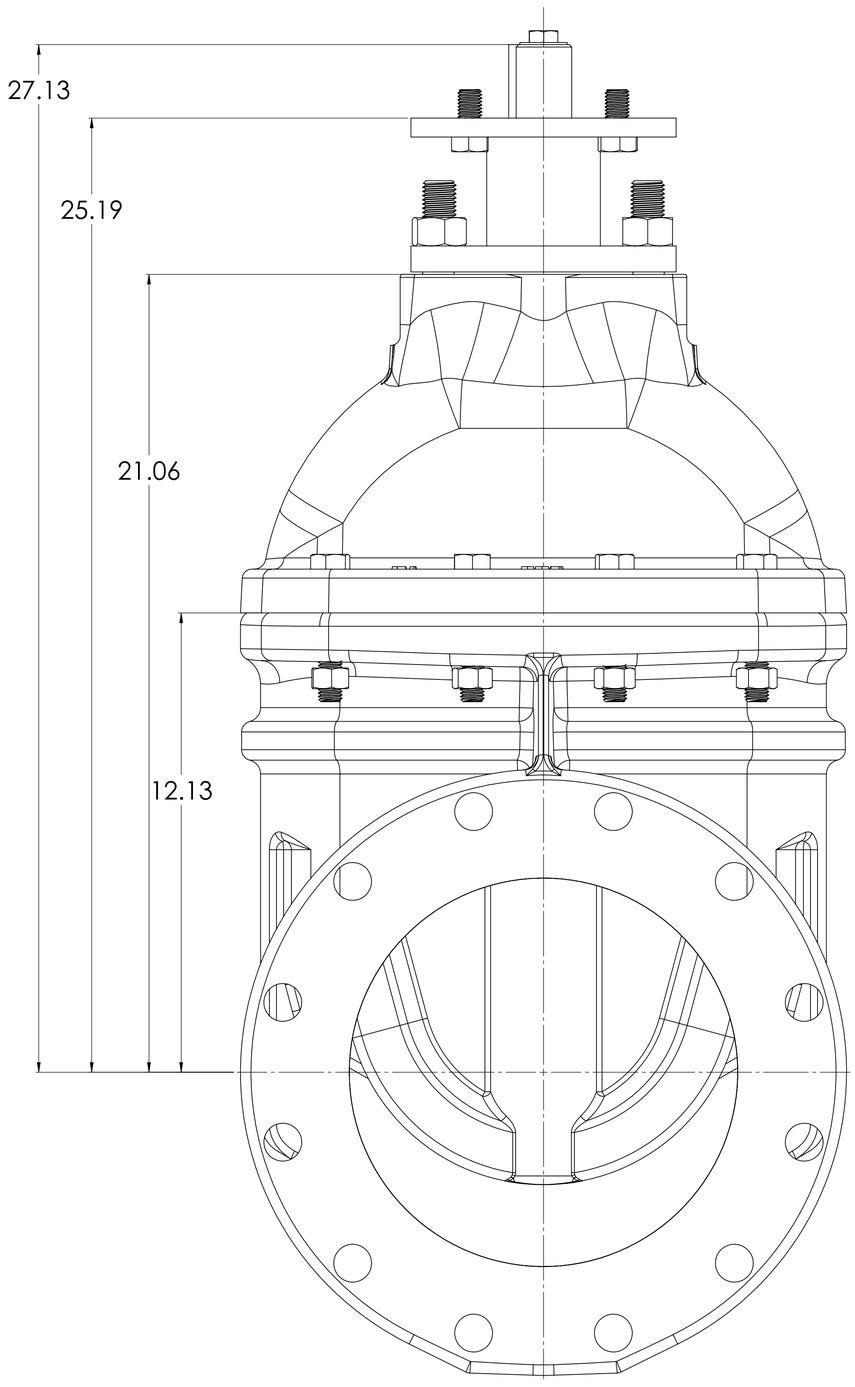
FULL DESCRIPTION:
10" C509 NRS GEARED RESILIENT WEDGE GATE VALVE

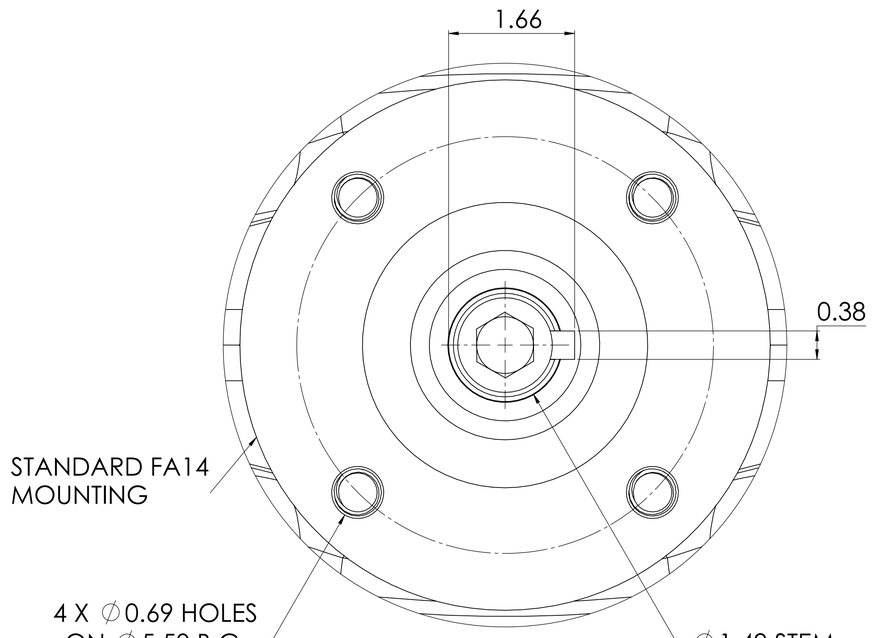
SHEET SCALE: 1:5
SOLIDWORKS VERSION: Solidworks 2018 SP2

CLOW VALVE CO.

SHEET 4 OF 7
SHEET SIZE D

BARE STEM ASSEMBLY





BARE STEM MOUNTING FLG

THIRD ANGLE PROJECTION
STANDARDS: 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"

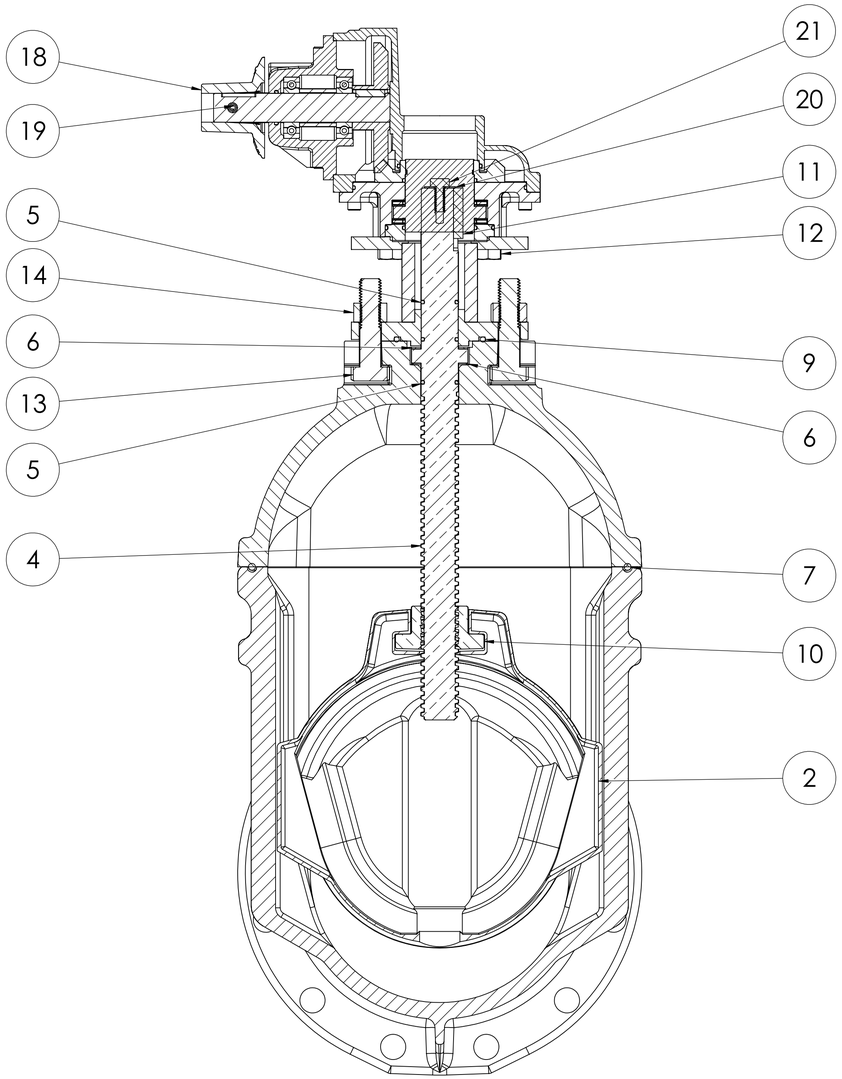
PROPERTY OF MCWANE CORPORATION.
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPRIETARY PROPERTY OF MCWANE CORPORATION AND ITS SUBSIDIARIES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF MCWANE CORPORATION AND ITS SUBSIDIARIES IS PROHIBITED. DESTRUCTION REQUIRED UPON COMPLETION OF DIRECTED USE UNLESS OTHERWISE ARRANGED.
ALL RIGHTS RESERVED.

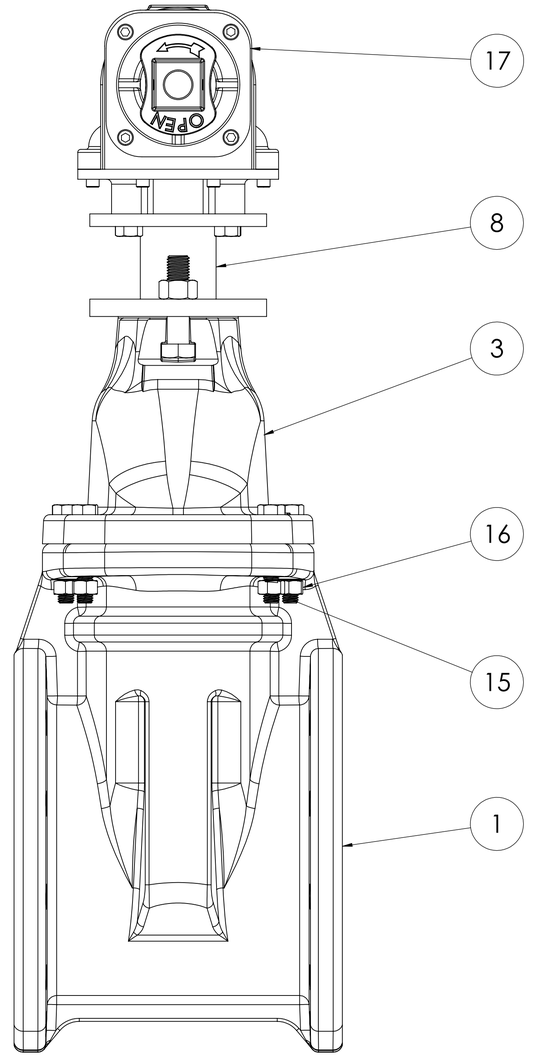
MATERIAL:
ESTIMATED WEIGHT: LBS.

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

COMPANY NO.:
REVISION: D
DESCRIPTION: 10" C509 NRS GEARED RESILIENT WEDGE GATE VALVE
SCALE: 1:5
SOFTWARE(S): Solidworks 2018 SP2

CLOW VALVE CO.
SHEET 5 OF 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 uin
RADII:	1/8"

PROPERTY OF MCWANE CORPORATION.
ALL MODELS AND DERIVITIVE DOCUMENTATION ARE PROPRIETARY TO MCWANE CORPORATION AND SHALL NOT BE COPIED OR DISTRIBUTED REQUIRED UPON COMPLETION OF DIRECTED USE UNLESS OTHERWISE ARRANGED.
ALL RIGHTS RESERVED.

MATERIAL	
ESTIMATED WEIGHT	LBS.
DRW BY:	CW
DATE DRAWN:	12/2/2020
CHK. BY	
CHK DATE:	
DRAWING NO.	
REVISED PER:	
ECN/DCN:	
REFERENCE	
PRINT:	D
DESCRIPTION	10" C509 NRS GEARED RESILIENT WEDGE GATE VALVE
SHEET SCALE	1:5
SOFTWARE USED	Solidworks 2018 SP2

CLOW VALVE CO.

SHEET 6 OF 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	COVER	1	-	DUCTILE IRON	-
4	STEM	1	-	C36000	C95400 (LOW ZINC), 304 SS, 316 SS
5	O-RING	3	#218	EPDM	-
6	THRUST WASHER	2	-	ACETAL	C26000
7	O-RING	1	#452	EPDM	-
8	FA14 MOTOR/GEAR MOUNTING BRACKET	1	-	COLD ROLLED STEEL	FA10 AND FA16
9	O-RING	1	#339	EPDM	-
10	STEM NUT	1	-	C87850	C87610 (LOW ZINC)
11	STEM KEY	1	3/8" X 1-3/4"	18-8 SS	-
12	HEX HEAD CAP SCREW	4	5/8"-11 X 1 1/4"	18-8 SS	316 SS
13	HEX HEAD CAP SCREW	2	7/8"-9 X 3 1/2"	18-8 SS	316 SS
14	HEX NUT	2	7/8"-9	18-8 SS	316 SS
15	HEX HEAD CAP SCREW	8	5/8"-11 X 3 1/2"	18-8 SS	316 SS
16	HEX NUT	8	5/8"-11	18-8 SS	316 SS
17	BEVEL GEAR	1	-	-	SPUR GEAR
18	OPERATING NUT	1	-	DUCTILE IRON	C86700, ** ∅ 16" HANDWHEEL**
19	COILED SPRING PIN	1	10MM X 45MM	302/304 SS	-
20	WASHER	1	1/2"	18-8 SS	316 SS
21	HEX HEAD CAP SCREW	1	1/2"-13 X 1"	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: 32
- AWWA MAXIMUM ALLOWABLE CLOSING TORQUE 185 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
D	ECN 2461	JB	6/25/2025
C	-	CW	12/17/21
B	-	CW	5/18/21
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.

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"

PROPERTY OF MCWANE CORPORATION. ALL MODELS AND DERIVITIVE DOCUMENTATION ARE PROPRIETARY TO MCWANE CORPORATION AND ITS SUBSIDIARIES. NOT TO BE REPRODUCED OR USED FOR ANY PURPOSE OF DIRECTED USE UNLESS OTHERWISE ARRANGED. ALL RIGHTS RESERVED.

MATERIAL:
ESTIMATED WEIGHT: LBS.

DESIGN NO.:
DRAWING NO.: D
DESCRIPTION: 10" C509 NRS GEARED RESILIENT WEDGE GATE VALVE

DRW BY: CW | DATE DRAWN: 12/2/2020 | CHK. BY: | CHK DATE: | SHEET SCALE: 1:5 | SOLIDWORKS: Solidworks 2018 SP2 | SHEET 7 OF 7 | SHEET SIZE D

CLOW VALVE CO.