



WEAVER CONSTRUCTION MANAGEMENT, INC.
 3679 S. Huron St., Suite 404
 Englewood, CO 80110
 Phone: (303) 789-4111 FAX: (303) 789-4310

SUBMITTAL TRANSMITTAL

December 6, 2011
WCM Submittal No: 02641-003

PROJECT: Harold Thompson Regional WRF
 Birdsall Rd.
 Fountain, CO 80817
 Job No. 2908

ENGINEER: GMS, Inc.
 611 No. Weber St., #300
 Colorado Springs, CO 80903
 719-475-2935 Roger Sams

OWNER: Lower Fountain Metropolitan
 Sewage Disposal District
 901 S. Santa Fe Ave.
 Fountain, CO 80817
 719-382-5303 James Heckman

CONTRACTOR: Municipal Treatment Equipment , Inc.
 17301 W Colfax Ave, #105
 Golden, CO 80401
 303-231-9175 Tim Rice

SUBJECT: Dezurik, Flanged Manual Plug Valves and WCM Comments Letter

SPEC SECTION: 02641-9 and 02641-03 2.1 C

PREVIOUS SUBMISSION DATES:

DEVIATIONS FROM SPEC: ___ YES x NO

CONTRACTOR'S STAMP: This submittal has been reviewed by Weaver Construction Management and approved with respect to the means, methods, techniques, & safety precautions & programs incidental thereto. Weaver General Construction also warrants that this submittal complies with contracted documents and comprises on deviations thereto:

Contractor's Stamp:

Engineer's Stamp:

Date: 12/06/11
 Reviewed by: H.C. Myers
 (X) Reviewed Without Comments
 () Reviewed With Comments

ENGINEER'S
 COMMENTS: _____

—



Project: HDTWRF Project

Location: Fountain, CO

Supplier: Municipal Treatment Equipment

Date: 12/6/11

Submittal for: Plug Valves – Dezurik, Flanged. Spec section 02641-9 as well as 02641-03 2.1 C

Submittal Review Comments

- 1. The accompanying product data has been reviewed and is found to satisfy the spec. Please post for submittal.**
- 2. This submittal is for manual valves only. Other operators/accessories to be submitted as needed at a later date.**
- 3. Valve sizes at this time are not fully known, but are included in this technical data.**



December 2, 2011

APPROVAL DRAWINGS

PROJECT NAME
THOMPSON WATER

PURCHASE ORDER
VERBALTYLER

VALVE TYPE
ECCENTRIC PLUG VALVES

CONTRACTOR: WEAVER GENERAL CONSTRUCTION
3679 S. HURON STREET
ENGLEWOOD, CO 80110

LOCAL SUPPLIER: MUNICIPAL VALVE CO
17301 W COLFAX AVE
GOLDEN, CO 80401
303-231-9175

MANUFACTURER: DeZURIK
250 RIVERSIDE AVE NORTH
SARTELL, MN 56377
(320) 259-2000

Factory Work Order 787910
Factory Sales Order 612788



TABLE OF CONTENTS

A Data Sheet is included for each line item on the purchase order.
Document numbers are listed at the bottom of the Data Sheet.
Any one drawing may apply to more than one item number.
All documents are assembled in alpha/numeric order within each section,

DATA SHEETS

Data Sheets

INSTALLATION DRAWINGS

Dimensional Drawings

CROSS SECTION DRAWINGS

Cross Section/Parts List Drawings
Basic Valve Materials of Construction



WEAVER GENERAL CONSTRUCTION

3679 S. HURON STREET
 SUITE 404
 ENGLEWOOD, CO
 80110

P.O. VERBALTYLER
 FACTORY ORDER NO 787910
 FACTORY SALES ORDER NO 612788
 REV 0

PROJ. NAME THOMPSON WATER

Fact. ITEM	Cust. ITEM	QTY	DESCRIPTION	PART NO. 9483232
1	1	2	PEC,6,MJ,CI,NBR,CR,1202B0*GB-6-N	

Style Size	PEC 6	Eccentric Plug Valve, Rectangular Port 6 Inch (Standard Port), Stainless Steel Bearings, Welded-In Nickel Seat (Except Rubber Lined or Stainless Steel Bodies)
End Connection	MJ	Mechanical Joint, Conforms to ANSI/AWWA C111/A21.11
Body Material	CI	Cast Iron, ASTM A126, Class B
Packing	NBR	Acrylonitrile-Butadiene Reinforced, Multiple V-Ring with External Adjustment, -20 to 250 Degree F. (-29 to 121 Degree C.)
* Plug Facing	CR	Chloroprene; -20 to 180°F (-29 to 83°C)
Temp. Rating		180 degrees F.
Pressure Rating		175 psig
Coating	1202B0	4 mils minimum of Blue Epoxy Tnemec 141 (NSF Std. 61) on Interior with Standard (SP10) surface prep and 4 mils minimum of Black Asphalt Varnish on Exterior with Standard (SP10) surface prep
Act Type	GB-6-N	G-Series Buriable Worm Gear with 2 Inch Square Nut Operator
Upper Thrust Bearing	TFE	Teflon

RELATED DOCUMENTS

A46408	DWG INST PEC MJ GR1 GB-6-N 4-1
A22430	DWG VALVE ASSY PEC MJ 4-20"
A22555	DWG ACT GB-6-HD/N & GB-12-HD/N

* Chloroprene is Dezurik's proprietary compound used instead of Neoprene.



WEAVER GENERAL CONSTRUCTION

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 SUITE 404
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P.O. VERBALTYLER
 FACTORY ORDER NO 787910
 FACTORY SALES ORDER NO 612788
 REV 0

PROJ. NAME THOMPSON WATER

Fact. ITEM	Cust. ITEM	QTY	DESCRIPTION	PART NO. 9602123
2	2	2	PEC,10,MJ,CI,NBR,CR,1202B0*GB-6-N	

Style Size	PEC 10	Eccentric Plug Valve, Rectangular Port 10 Inch (Standard Port), Stainless Steel Bearings, Welded-In Nickel Seat (Except Rubber Lined or Stainless Steel Bodies)
End Connection	MJ	Mechanical Joint, Conforms to ANSI/AWWA C111/A21.11
Body Material	CI	Cast Iron, ASTM A126, Class B
Packing	NBR	Acrylonitrile-Butadiene Reinforced, Multiple V-Ring with External Adjustment, -20 to 250 Degree F. (-29 to 121 Degree C.)
* Plug Facing	CR	Chloroprene; -20 to 180°F (-29 to 83°C)
Temp. Rating		180 degrees F.
Pressure Rating		175 psig
Coating	1202B0	4 mils minimum of Blue Epoxy Tnemec 141 (NSF Std. 61) on Interior with Standard (SP10) surface prep and 4 mils minimum of Black Asphalt Varnish on Exterior with Standard (SP10) surface prep
Act Type	GB-6-N	G-Series Buriable Worm Gear with 2 Inch Square Nut Operator
Upper Thrust Bearing	TFE	Teflon

RELATED DOCUMENTS

A46408	DWG INST PEC MJ GR1 GB-6-N 4-1
A22430	DWG VALVE ASSY PEC MJ 4-20"
A22555	DWG ACT GB-6-HD/N & GB-12-HD/N

* Chloroprene is Dezurik's proprietary compound used instead of Neoprene.



WEAVER GENERAL CONSTRUCTION

3679 S. HURON STREET
SUITE 404
ENGLEWOOD, CO
80110

P.O. VERBALTYLER
FACTORY ORDER NO 787910
FACTORY SALES ORDER NO 612788
REV 0

PROJ. NAME THOMPSON WATER

Fact. ITEM	Cust. ITEM	QTY	DESCRIPTION	PART NO. 9426485
3	3	4	PEC,10,F1,CI,NBR,CR,1204G0*GS-6-HD12	

Style Size	PEC 10	Eccentric Plug Valve, Rectangular Port 10 Inch (Standard Port), Stainless Steel Bearings, Welded-In Nickel Seat (Except Rubber Lined or Stainless Steel Bodies)
End Connection	F1	Flanged, Drilled to ANSI Class 125/150
Body Material	CI	Cast Iron, ASTM A126, Class B
Packing	NBR	Acrylonitrile-Butadiene Reinforced, Multiple V-Ring with External Adjustment, -20 to 250 Degree F. (-29 to 121 Degree C.)
* Plug Facing	CR	Chloroprene; -20 to 180°F (-29 to 83°C)
Temp. Rating		180 degrees F.
Pressure Rating		175 psig
Coating	1204G0	4 mils minimum of Blue Epoxy Tnemec 141 (NSF Std. 61) on Interior with Standard (SP10) surface prep and 3 mils minimum of Blue Enamel on Exterior with Standard (SP10) surface prep
Act Type	GS-6-HD12	G-Series Gear with Handwheel Operator
Upper Thrust Bearing	TFE	Teflon

RELATED DOCUMENTS

A46423	DWG INST PEC F GR1 GS-6-HD 4-1
A20730	DWG VALVE ASSY PEC F 3.5-20"
A22553	DWG ACT GS-6-HD/CW/N & GS-12-H

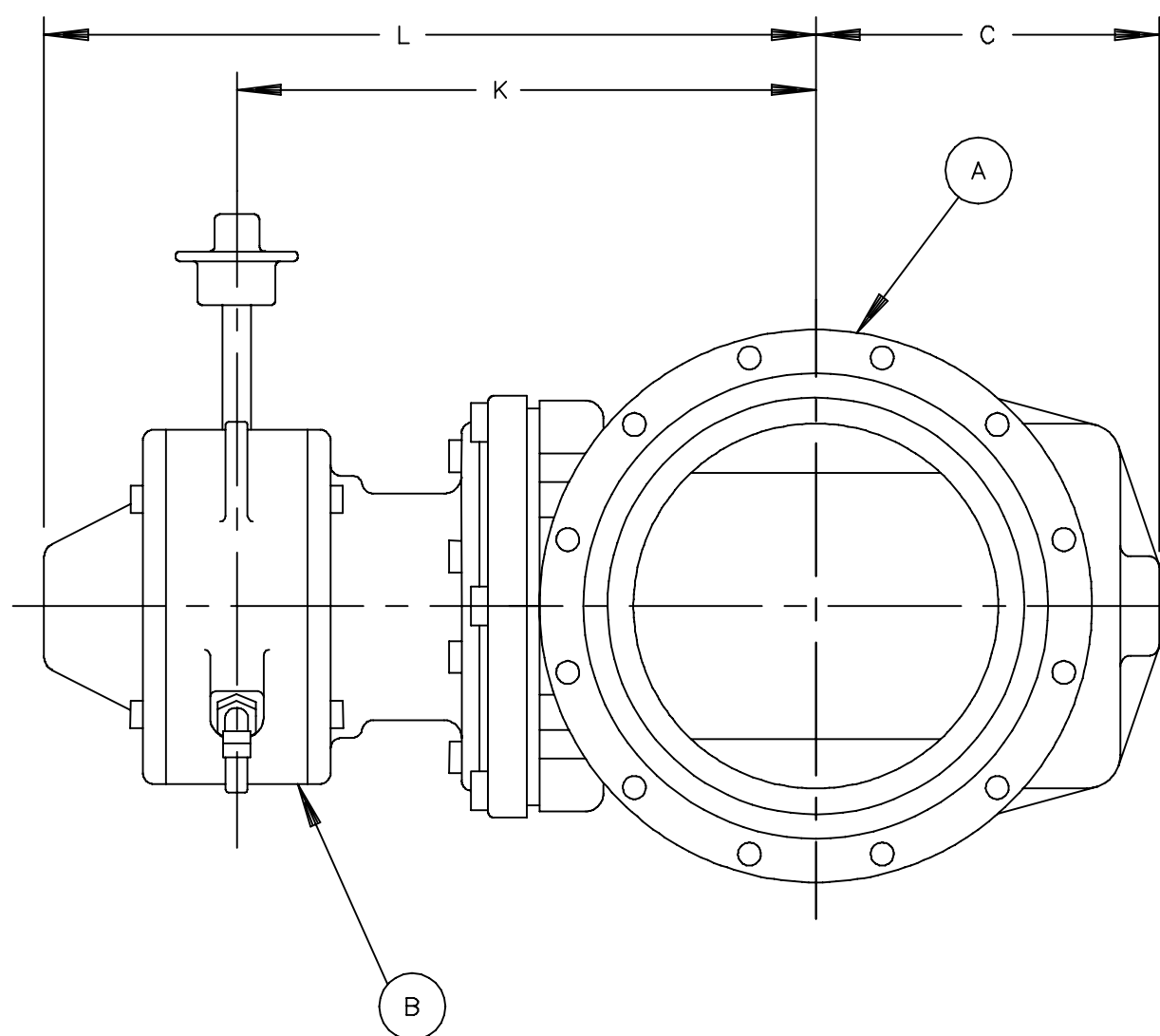
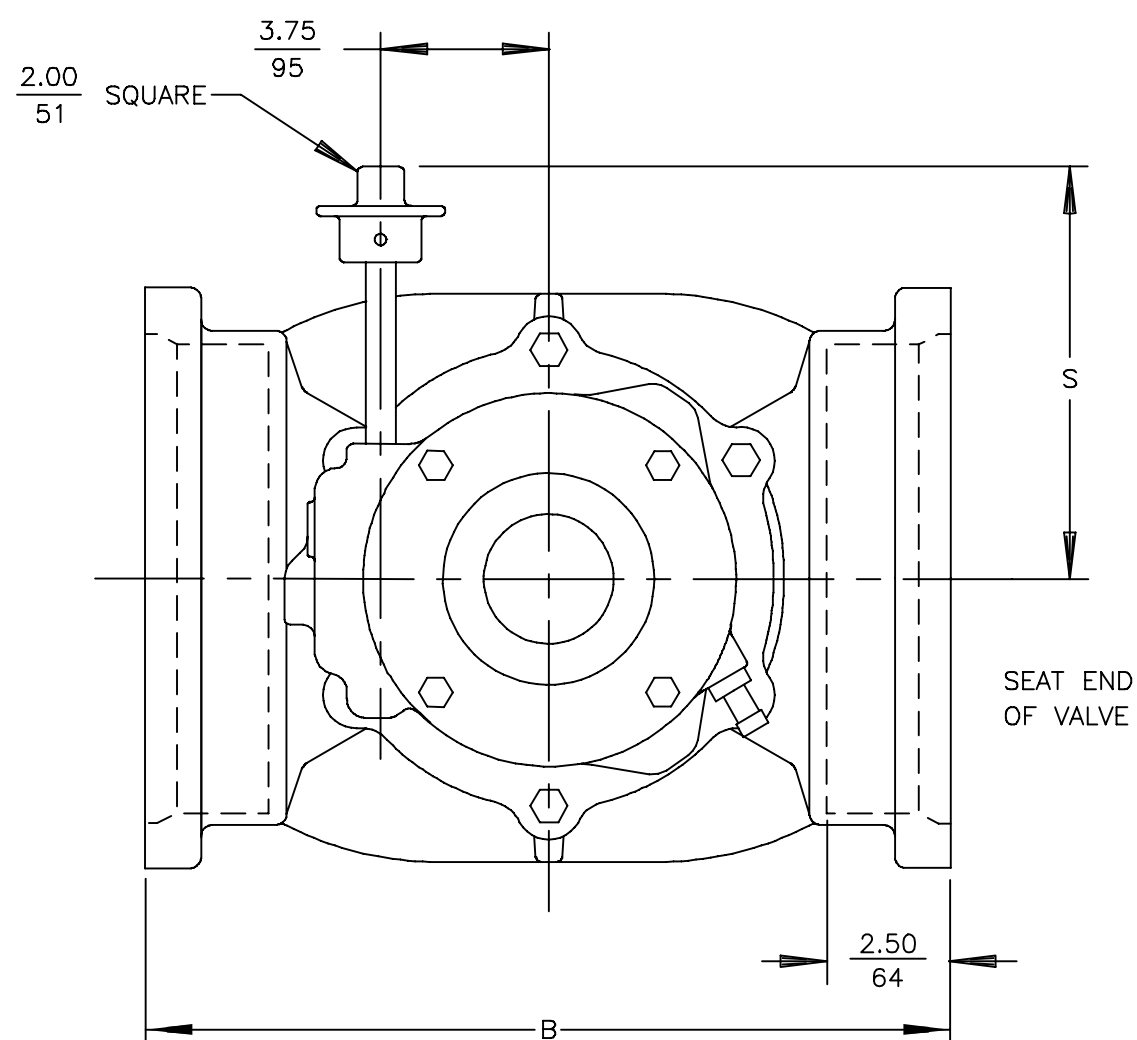
* Chloroprene is Dezurik's proprietary compound used instead of Neoprene.

VALVE SIZE		DIMENSIONS <small>INCHES MILLIMETERS</small>				
INCH	MM	B	C	K	L	S
6	150	$\frac{15.75}{400}$	$\frac{6.50}{165}$	$\frac{11.81}{300}$	$\frac{16.03}{407}$	$\frac{12.12}{308}$
10	250	$\frac{19.38}{492}$	$\frac{10.28}{261}$	$\frac{15.12}{384}$	$\frac{19.34}{491}$	$\frac{14.50}{368}$

A	VALVE
B	ACTUATOR

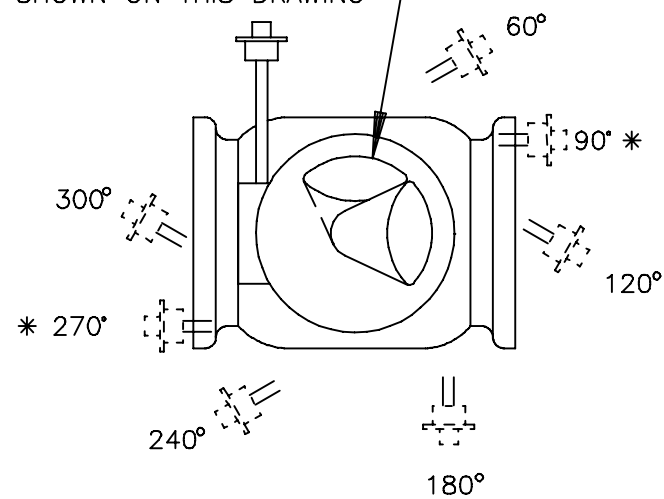
NOTE:

- MECHANICAL JOINT ENDS MEET AWWA STANDARD C111.
- 13 TURNS OF WRENCHING SQUARE ARE REQUIRED TO OPEN VALVE.
- INSTALLATION NOTE:
 - FOR LIQUIDS & GASES:
INSTALL VALVE WITH HIGHER PRESSURE AGAINST END OPPOSITE SEAT.
 - FOR SUSPENDED SOLIDS, SLURRIES, ETC:
INSTALL VALVE WITH HIGHER PRESSURE AGAINST SEAT END. IN HORIZONTAL PIPELINES, VALVE SHOULD BE INSTALLED ON IT'S SIDE SO PLUG ROTATES TO THE TOP OF THE PIPELINE WHEN OPEN. (SEE DIAGRAM BELOW).



PLUG IN OPEN POSITION.
SEE INSTALLATION NOTE.

STANDARD POSITION
SHOWN ON THIS DRAWING



ACTUATOR MOUNTING POSITIONS AS VIEWED FROM TOP OF VALVE. DOTTED LINES SHOW OPTIONAL MOUNTING POSITIONS.

* THE 90° AND 270° POSITIONS REQUIRE DIFFERENT INTERNAL GEARING. THESE POSITIONS MUST BE NOTED ON THE PURCHASE ORDER.

6	1842	02/12/10
L	50312	02/12/99
E		
D		
C		
B		
A		

DeZURIK
Sartell, MN USA 56377
www.dezurik.com

PEC ECCENTRIC VALVES SIZE 6 & 10 MECH JOINT MATERIAL GROUP 1 GB-6-N ENCLOSED GEAR ACTUATOR FOR SUBMERGED SERVICE WITH NUT ACTUATOR

DOCT. CODE	DRAWN	BMP	APPROVED	TPK
C1	CHECKED	TPK	DATE	02/08/99

A46408

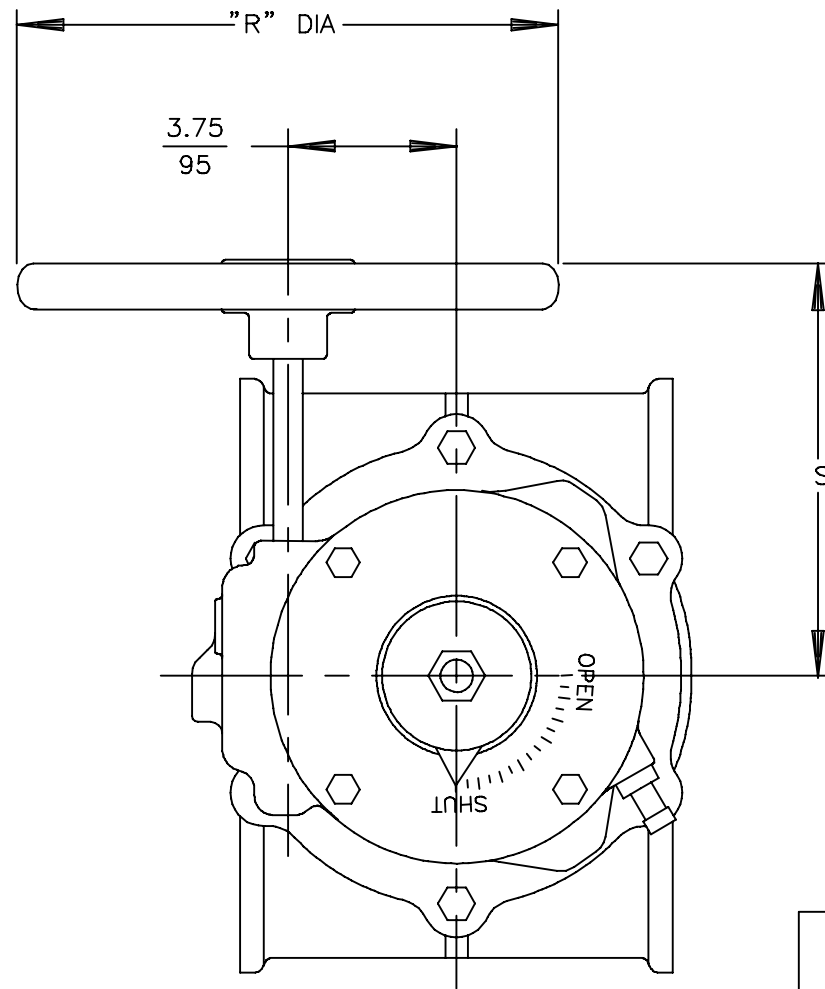
VALVE SIZE		DIMENSIONS <small>INCHES MILLIMETERS</small>										
INCH	MM	A	B	C	D	E	F	G	H	J	K	L
10	250	$\frac{.88}{22}$	$\frac{13.00}{330}$	$\frac{10.28}{261}$	$\frac{14.25}{362}$	7/8-9UNC	4	$\frac{.88}{22}$	$\frac{1.00}{25}$	8	$\frac{15.12}{384}$	$\frac{18.77}{477}$

A	VALVE
B	ACTUATOR

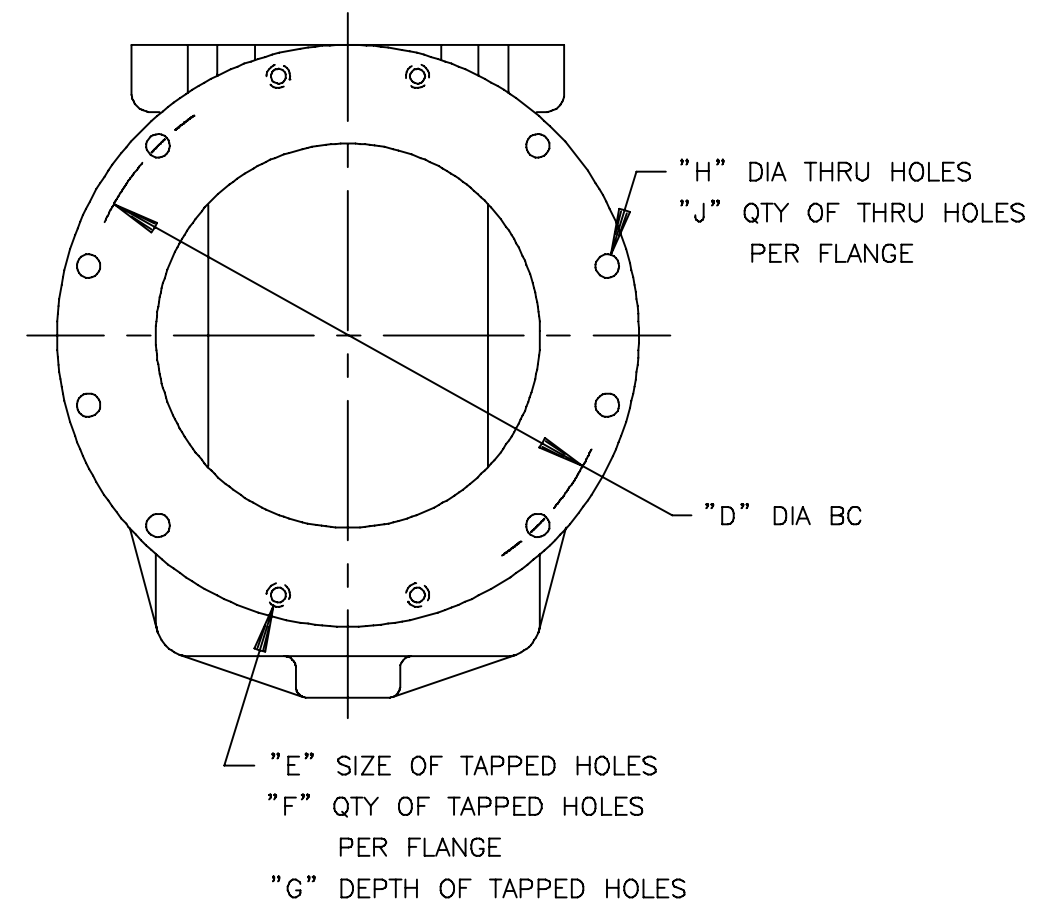
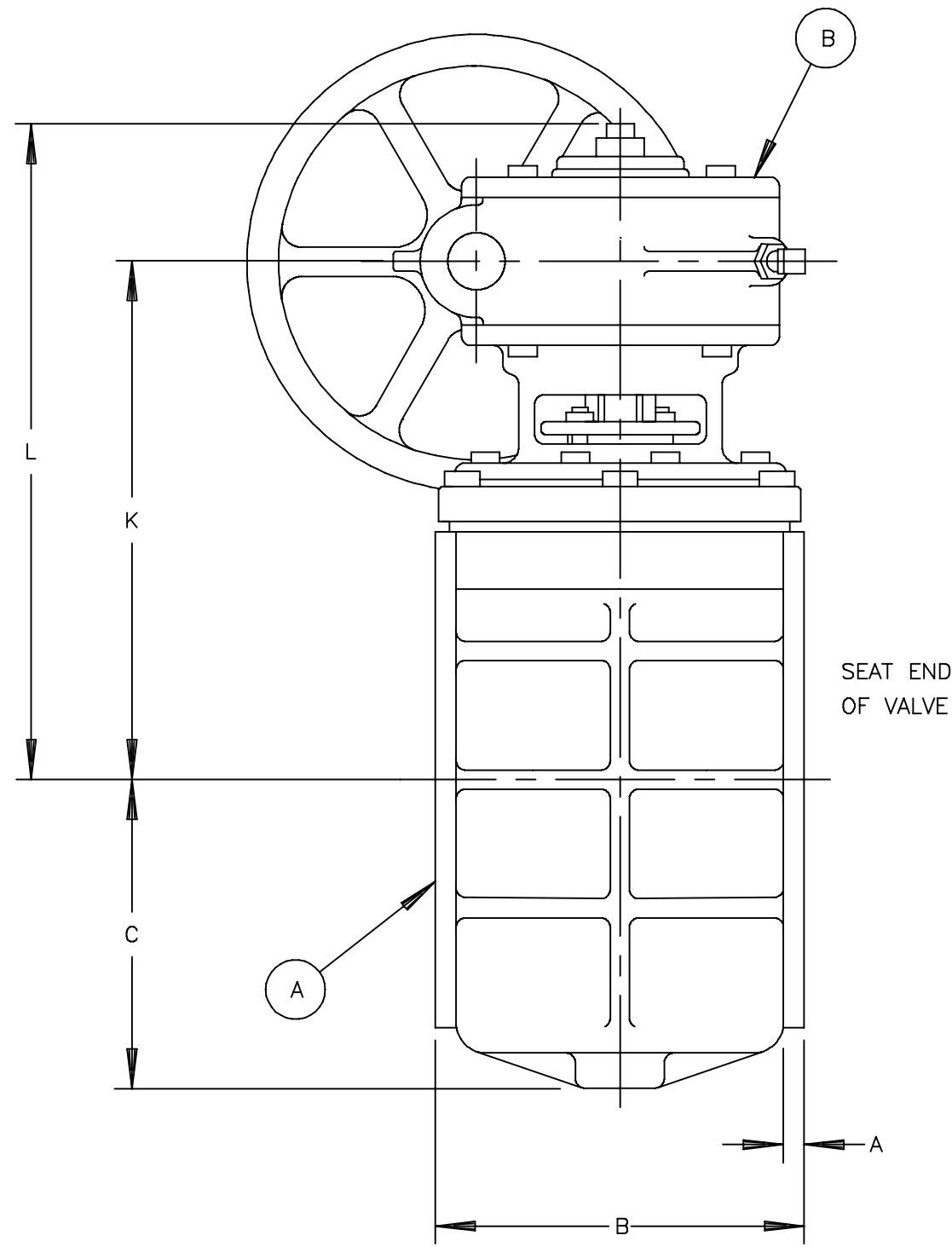
VALVE SIZE	ACTUATOR NUMBER	DIMENSIONS <small>IN MM</small>	
		R	S
10	GS-6-HD12	$\frac{12.00}{305}$	$\frac{11.62}{295}$

NOTE:

1. FLANGES ARE FLAT FACED WITH DIAMETER AND DRILLING TO CLASS 125 ANSI STANDARD B16.1, EXCEPT FOR TAPPED HOLES AS INDICATED. SEE A-16368 FOR NON-ANSI FLANGE DATA.
2. 13 TURNS OF HANDWHEEL ARE REQUIRED TO OPEN VALVE.
3. INSTALLATION NOTE:
 - FOR LIQUIDS & GASES: INSTALL VALVE WITH HIGHER PRESSURE AGAINST END OPPOSITE SEAT.
 - FOR SUSPENDED SOLIDS, SLURRIES, ETC: INSTALL VALVE WITH HIGHER PRESSURE AGAINST SEAT END. IN HORIZONTAL PIPELINES, VALVE SHOULD BE INSTALLED ON IT'S SIDE SO PLUG ROTATES TO THE TOP OF THE PIPELINE WHEN OPEN. (SEE DIAGRAM BELOW).

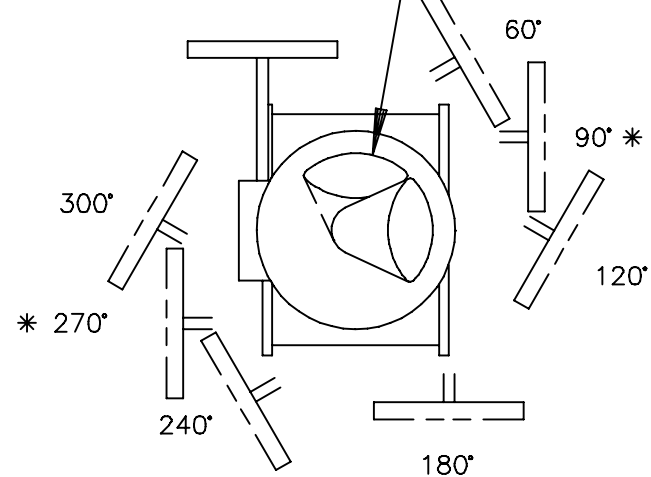


NOTICE
THIS DRAWING DOES NOT SHOW ACTUATOR ACCESSORIES. IF ACCESSORIES ARE REQUIRED, REFER TO THE APPROPRIATE ACCESSORY INSTALLATION DRAWING FOR DIMENSIONS AND OTHER RELATED INFORMATION.



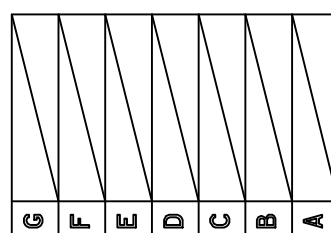
PLUG IN OPEN POSITION. SEE INSTALLATION NOTE.

STANDARD POSITION SHOWN ON THIS DRAWING



ACTUATOR MOUNTING POSITIONS AS VIEWED FROM TOP OF VALVE. DOTTED LINES SHOW OPTIONAL MOUNTING POSITIONS.

* THE 90° AND 270° POSITIONS REQUIRE DIFFERENT INTERNAL GEARING. THESE POSITIONS MUST BE NOTED ON THE PURCHASE ORDER.



DeZURIK
Sartell, MN USA 56377
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PEC ECCENTRIC VALVES SIZE 10 FLANGED MATERIAL GROUP 1
GS-6-HD_ HANDWHEEL ACT'D

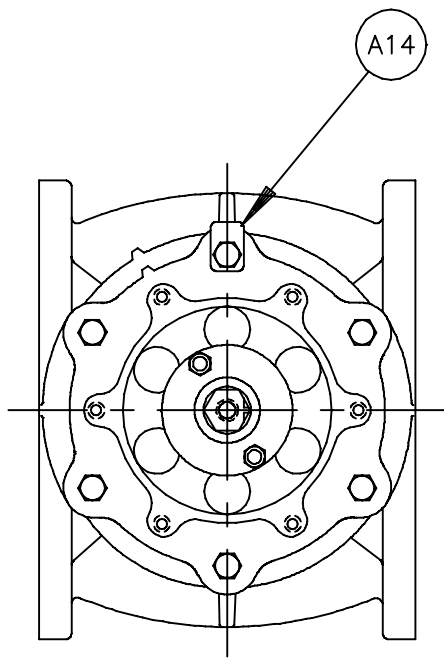
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C1	CHECKED	TPK	DATE	02/08/99

A46423

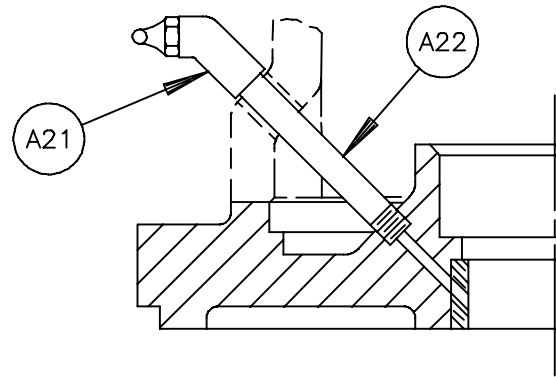
NO	PART NAME	QTY
A1	BODY	1
A2	BEARING (3.5 - 8 VALVES)	1
A2	BEARING (8.5 - 18 VALVES)	2
A2	BEARING (18.5 & 20 VALVES)	1
A3	PLUG	1
A4	THRUST WASHER (GRIT EXCLUDER WITH GE OPTION)	1
A5	GASKET (BODY)	1
A6	BONNET	1
A7	BEARING	1
A8	SCREW (3.5 - 18 VALVES)	6
A8	SCREW (18.5 & 20 VALVES)	10
A9	PACKING	-
A10	CONE, 3.5 - 8 NT (EXCEPT LOW FRICTION CAT. CHAR. NBRL & SQ. PACKING)	1
A11	GLAND	1
A12	STUD (3.5 - 20 GS--HD_ & GS--CW_)	2
A12	STUD (3.5 - 20 GS--C_)	2
A12	STUD (8.5 - 12 MNA)	NOT REQ'D
A12	STUD (8.5 - 12 LV)	NOT REQ'D
A12	STUD (3.5 - 20 GS--ML_)	2
A12	STUD (3.5 - 8 NT)	2
A12		
A12		
A13	NUT (3.5 - 20 GS--HD_ & GS--CW_)	2
A13	NUT (3.5 - 20 GS--C_)	2
A13	NUT (8.5 - 12 MNA)	NOT REQ'D
A13	NUT (8.5 - 12 LV)	NOT REQ'D
A13	NUT (3.5 - 12 GS--ML_)	2
A13	NUT (3.5 - 8 NT)	4
A13		
A13		
A14	CAUTION TAG	1
A15	PIPE PLUG (PU, PD OR PDU)	-
A18	GRIT EXCLUDER (OPTION GE ONLY)	-
A20	GREASE FITTING (OPTION GR ONLY)	1
A21	GREASE FITTING (OPTION GR ONLY)	1
A22	NIPPLE (EXCEPT LV & NT) (OPTION GR ONLY)	1

NOTE:

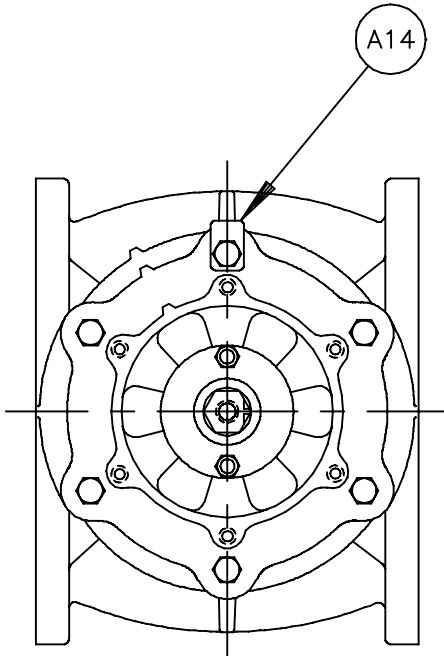
1. RECOMMENDED SPARE PARTS ARE ITEMS NUMBER A3, PLUG(IF RUBBER FACED), A4, A5 AND A9.
2. WHEN ORDERING PARTS, INCLUDE VALVE SIZE AND PART NUMBER FROM DATA PLATE. ALSO INCLUDE THIS DRAWING NUMBER WITH PART NAME, NUMBER AND QUANTITY.
3. CLOCKWISE ROTATION OF PLUG STEM CLOSSES VALVE.
4. ON THE SIZE 3.5, 4, 4.5, 5, 6, 8.5, & 10 VALVES BONNET SCREWS ARE USED FOR MOUNTING ACTUATOR.
5. VALVE MAY BE FURNISHED WITH EITHER THE UPPER JOURNAL GREASE FITTING, THE LOWER JOURNAL GREASE FITTING OR BOTH.



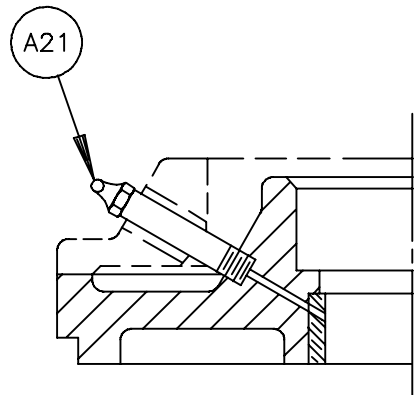
6.5 & 8 VALVES



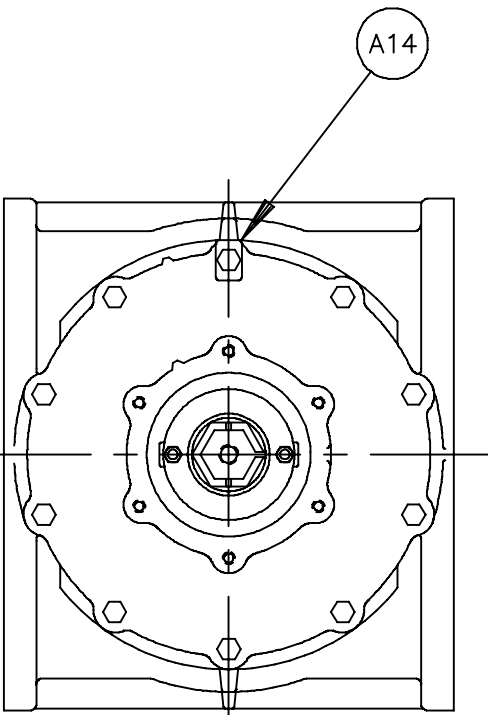
GREASE FITTING IN BONNET, ALL ACTUATORS EXCEPT GS-6, 10 & 12 VALVES



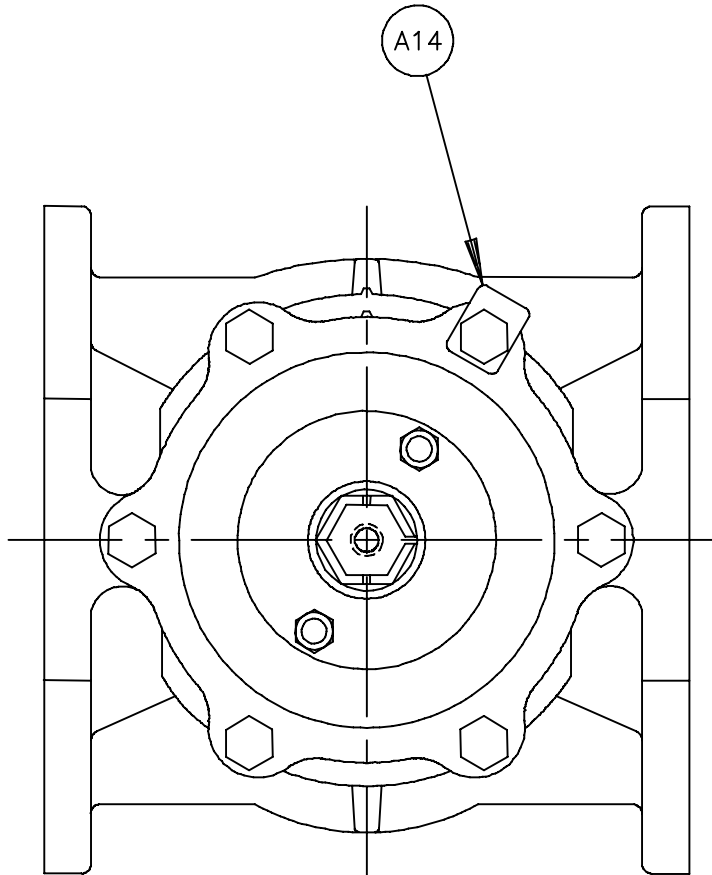
10.5 - 18 VALVES



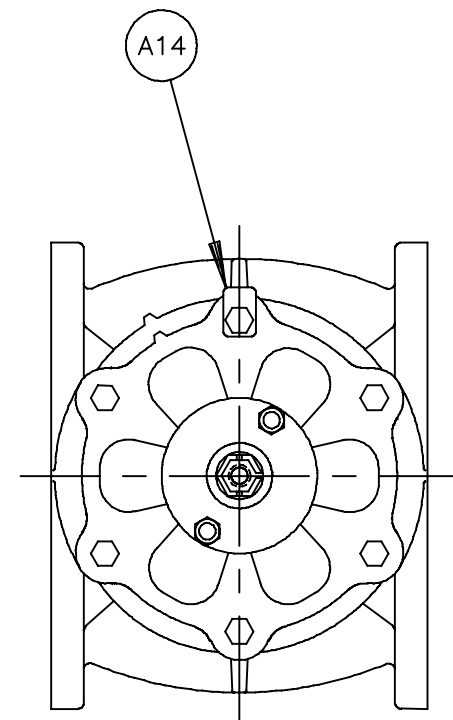
GREASE FITTING IN BONNET, GS-6 ACTR., 10 & 12 VALVES



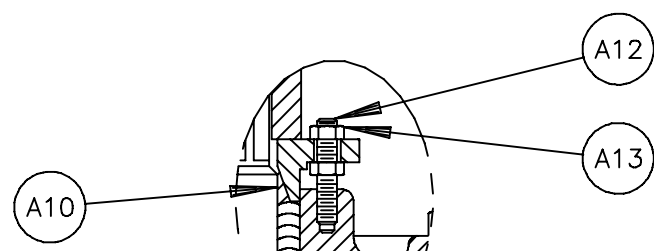
18.5 & 20 VALVES



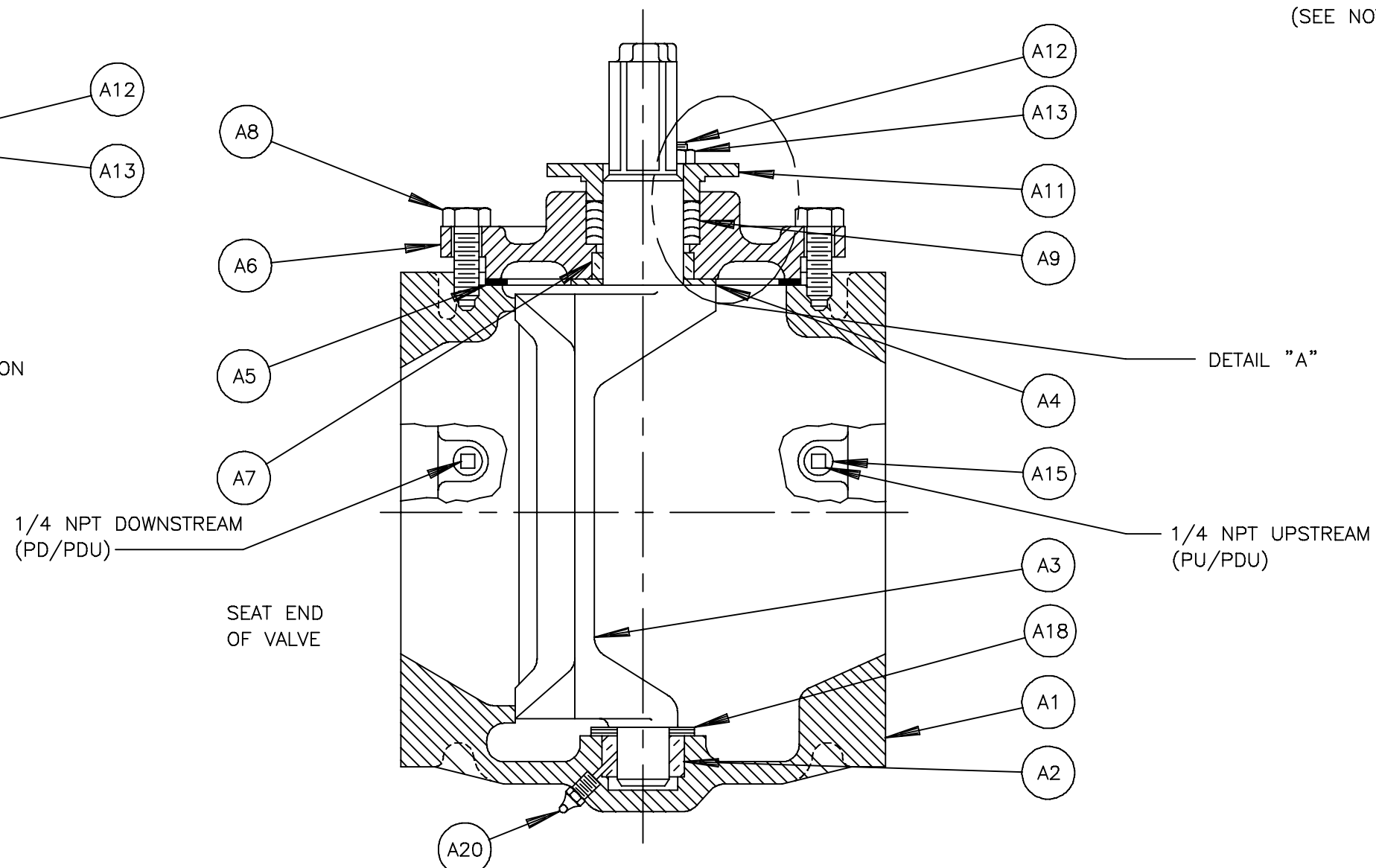
3.5 - 6 VALVES (SEE NOTE 4)



8.5 - 10 VALVES (SEE NOTE 4)



DETAIL "A" 3.5 - 8 NT CONSTRUCTION



Q	62047	07/26/11
P	61845	11/16/09
N	61612	06/10/08
M	61602	04/02/08
L	61371	11/22/05
K	60295	10/19/00
J	54653	03/30/99
H	54620	02/11/99
G	53766	09/03/96
F	50312	03/22/93
E	50312	03/03/93
D	51112	03/05/91
C	16317	8/2/85
B	15276	11/22/82
A	14670	08/28/81

DeZURIK
Sartell, MN USA 56377
www.dezurik.com

PEC ECCENTRIC VALVE ASSEMBLY
3.5 - 20, FLANGED, EXCEPT BODY MATERIAL CIS, DIS & CIH

DOCT. CODE	DRAWN	APPROVED	RJP
C1	DENNY	TNB	
CHECKED	DATE	10-13-83	

A20730



MATERIALS OF CONSTRUCTION

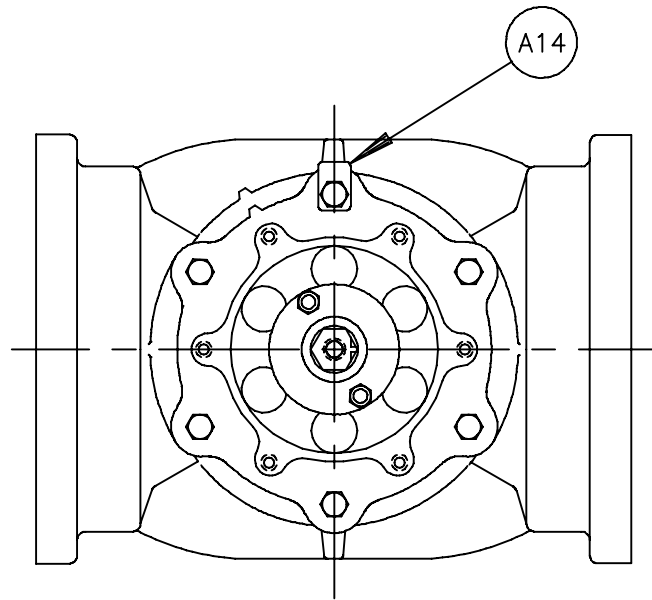
DRAWING(S): A20730

WORK ORDER: 787910

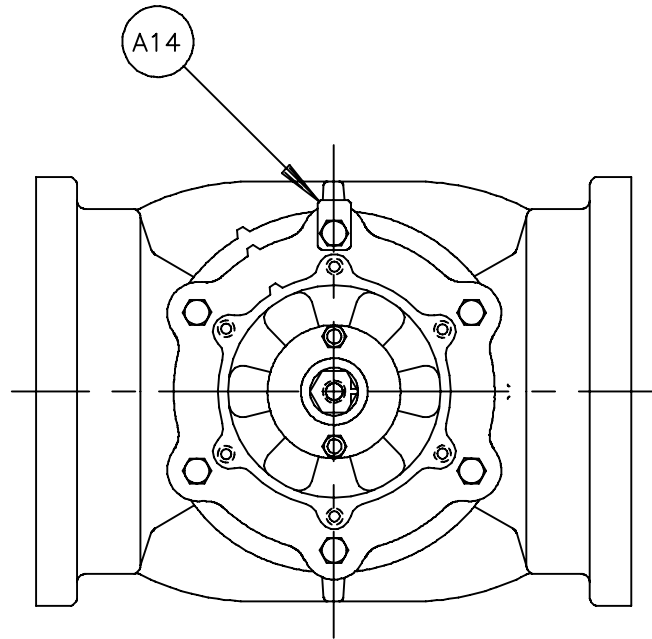
PART NO: 9426485

DESCRIPTION: PEC,10,F1,CI,NBR,CR,1204G0*GS-6-HD12

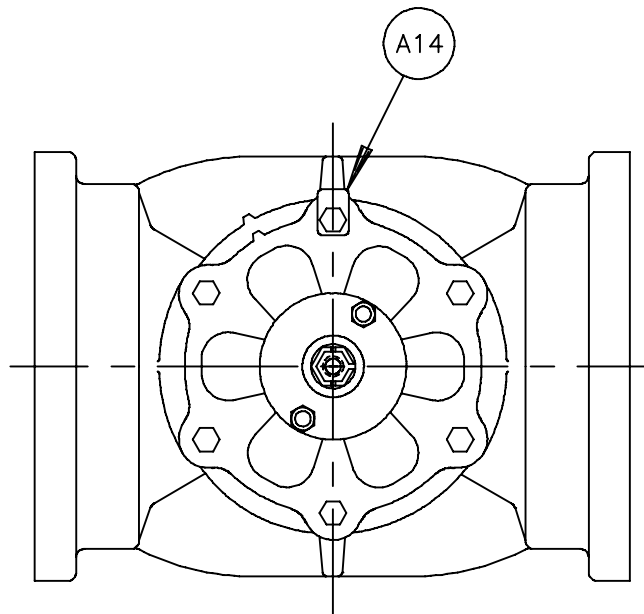
ITEM	MATERIAL
A01	IRON, ASTM A126, CLASS B
A02	STAINLESS STEEL, TYPE 316L, SINTERED
A03	CHLOROPRENE (CR)
A03	IRON, ASTM A126, CLASS B
A04	PTFE, TYPE II, ASTM D3294 OR D3308, GRADE 1
A05	GASKET, NON-ASBESTOS COMPRESSED SHEET GASKET MATERIAL
A06	IRON, ASTM A126, CLASS B
A07	STAINLESS STEEL, TYPE 316L, SINTERED
A08	CARBON STEEL, ZINC PLATED
A09	ACRYLONITRILE-BUTADIENE (NBR)
A11	IRON, ASTM A126, CLASS B
A12	CARBON STEEL, ZINC PLATED
A13	CARBON STEEL, ZINC PLATED
A14	STAINLESS STEEL, TYPE 302



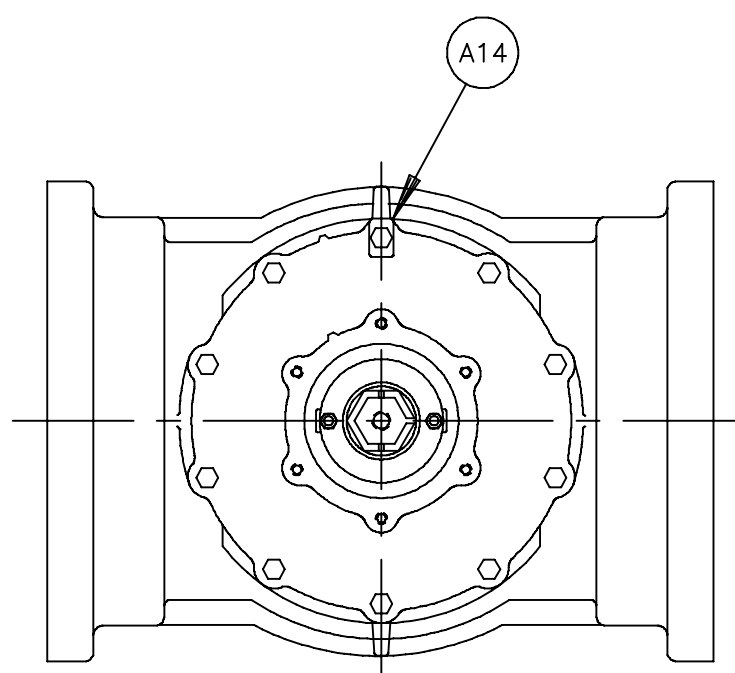
6.5 - 8 VALVES



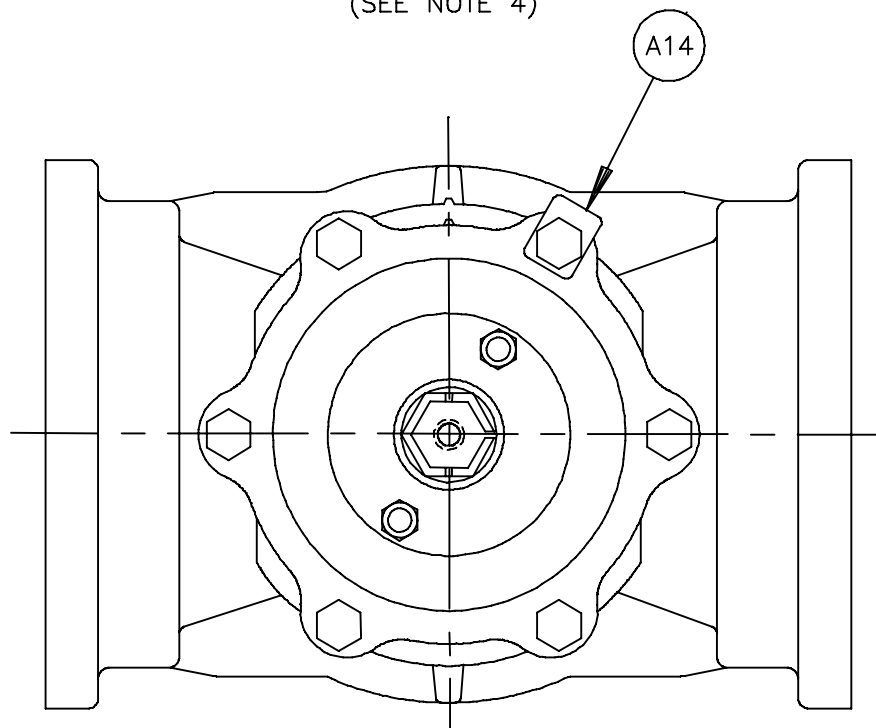
10.5 - 18 VALVES



8.5 - 10 VALVES
(SEE NOTE 4)



18.5 & 20 VALVES

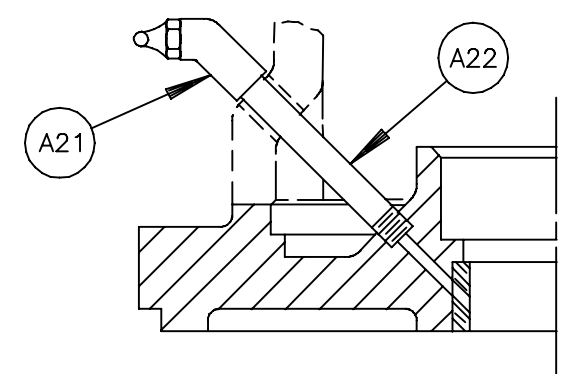


4 - 6 VALVES
(SEE NOTE 4)

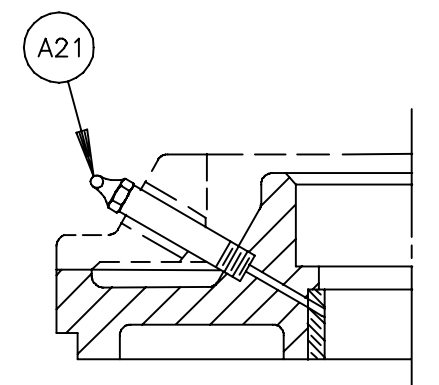
NOTE:

1. RECOMMENDED SPARE PARTS ARE ITEMS NUMBER A3, PLUG (IF RUBBER FACED), A4, A5, AND A9.
2. WHEN ORDERING PARTS, SPECIFY VALVE SIZE AND MODEL NUMBER FROM DATA PLATE, ALSO GIVE DRAWING NUMBER WITH PART NAME, ITEM NUMBER AND QUANTITY.
3. CLOCKWISE ROTATION OF PLUG STEM CLOSES VALVE.
4. ON THE SIZE 4, 4.5, 6, 8.5, & 10 VALVES BONNET SCREWS ARE USED FOR MOUNTING THE ACTUATOR.

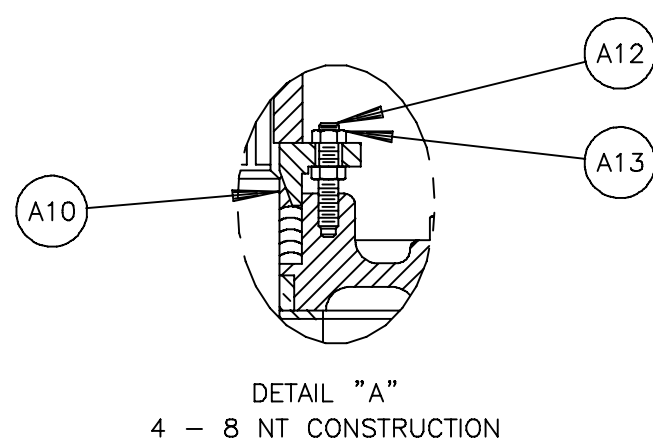
NO	PART NAME	QTY
A1	BODY	1
A2	BEARING (4-8 VALVES)	1
A2	BEARING (8.5-18 VALVES)	2
A2	BEARING (18.5-20 VALVES)	1
A3	PLUG	1
A4	THRUST WASHER (GRIT EXCLUDER WITH GE OPTION)	1
A5	GASKET (BODY)	1
A6	BONNET	1
A7	BEARING	1
A8	SCREW (4-18 VALVES)	6
A8	SCREW (18.5-20 VALVES)	10
A9	PACKING	-
A10	CONE, 4-8 NT (EXCEPT LOW FRICTION CAT. CHAR. NBRL & SQ. PACKING)	1
A11	GLAND	1
A12	STUD (4-20 GS--HD_ & GS--CW_)	2
A12	STUD (4-20 GS--C_)	2
A12	STUD (8.5-12 MNA)	NOT REQ'D
A12	STUD (8.5-12 LV)	NOT REQ'D
A12	STUD (4-20 GS--ML_)	2
A12	STUD (4-8 NT)	2
A13	NUT (4-20 GS--HD_ & GS--CW_)	2
A13	NUT (4-20 GS--C_)	2
A13	NUT (8.5-12 MNA)	NOT REQ'D
A13	NUT (8.5-12 LV)	NOT REQ'D
A13	NUT (4-12 GS--ML_)	2
A13	NUT (4-8 NT)	4
A14	CAUTION TAG	1
A15	PIPE PLUG (PU,PD OR PDU)	-
A18	GRIT EXCLUDER (OPTION GE ONLY)	-
A20	GREASE FITTING (OPTIONAL GR ONLY)	1
A21	GREASE FITTING (OPTIONAL GR ONLY)	1
A22	COUPLING	1



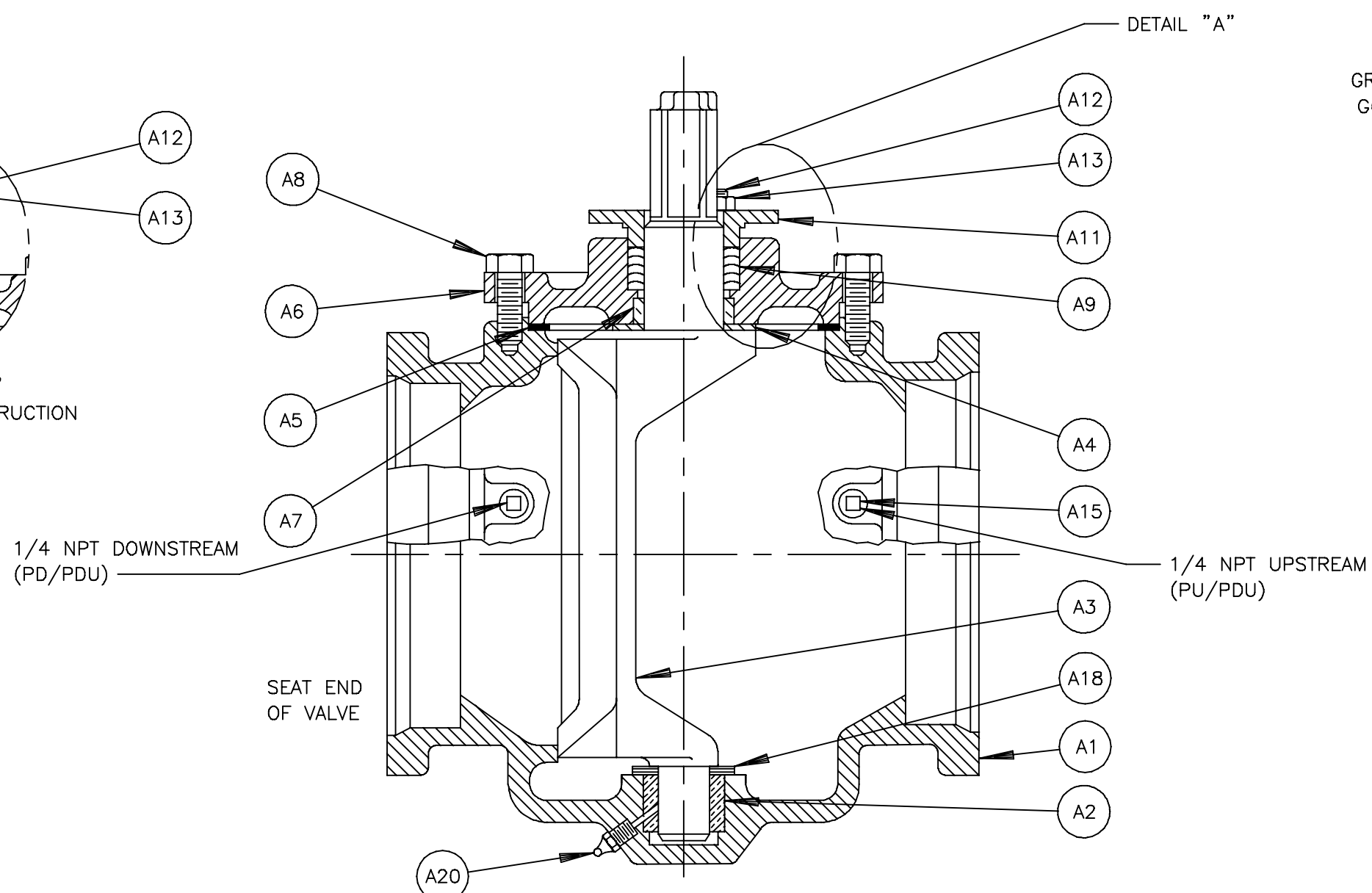
GREASE FITTING IN BONNET,
ALL ACTUATORS EXCEPT G6,
10 & 12 VALVES



GREASE FITTING IN BONNET,
G6 ACTR., 10 & 12 VALVES



DETAIL "A"
4 - 8 NT CONSTRUCTION



J	62047	07/27/11
H	61612	06/10/08
G	61602	04/02/08
F	61371	11/21/05
E	60285	10/19/00
D	54653	03/30/99
C	54620	02/12/99
B	51112	03/05/91
A	15276	11/22/82

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PEC ECCENTRIC VALVE ASSEMBLY 4-20, MECHANICAL JOINT, BODY MATERIAL CI ONLY			
DOCT. CODE	DRAWN	APPROVED	RJP
C1	BR	DATE	
CHECKED	TNB	10-13-83	A22430



MATERIALS OF CONSTRUCTION

DRAWING(S): A22430

WORK ORDER: 787910

PART NO: 9483232

DESCRIPTION: PEC,6,MJ,CI,NBR,CR,1202B0*GB-6-N

ITEM	MATERIAL
A01	IRON, ASTM A126, CLASS B
A02	STAINLESS STEEL, TYPE 316L, SINTERED
A03	CHLOROPRENE (CR)
A03	IRON, ASTM A126, CLASS B
A04	PTFE, TYPE II, ASTM D3294 OR D3308, GRADE 1
A05	GASKET, NON-ASBESTOS COMPRESSED SHEET GASKET MATERIAL
A06	IRON, ASTM A126, CLASS B
A07	STAINLESS STEEL, TYPE 316L, SINTERED
A08	CARBON STEEL, ZINC PLATED
A09	ACRYLONITRILE-BUTADIENE (NBR)
A11	IRON, ASTM A126, CLASS B
A12	CARBON STEEL, ZINC PLATED
A13	CARBON STEEL, ZINC PLATED
A14	STAINLESS STEEL, TYPE 302



MATERIALS OF CONSTRUCTION

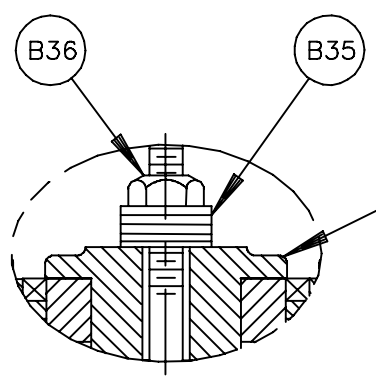
DRAWING(S): A22430

WORK ORDER: 787910

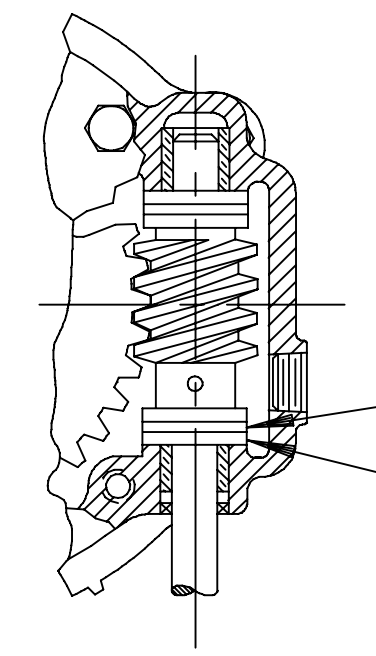
PART NO: 9602123

DESCRIPTION: PEC,10,MJ,CI,NBR,CR,1202B0*GB-6-N

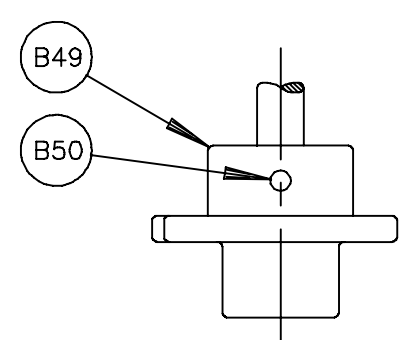
ITEM	MATERIAL
A01	IRON, ASTM A126, CLASS B
A02	STAINLESS STEEL, TYPE 316L, SINTERED
A03	CHLOROPRENE (CR)
A03	IRON, ASTM A126, CLASS B
A04	PTFE, TYPE II, ASTM D3294 OR D3308, GRADE 1
A05	GASKET, NON-ASBESTOS COMPRESSED SHEET GASKET MATERIAL
A06	IRON, ASTM A126, CLASS B
A07	STAINLESS STEEL, TYPE 316L, SINTERED
A08	CARBON STEEL, ZINC PLATED
A09	ACRYLONITRILE-BUTADIENE (NBR)
A11	IRON, ASTM A126, CLASS B
A12	CARBON STEEL, ZINC PLATED
A13	CARBON STEEL, ZINC PLATED
A14	STAINLESS STEEL, TYPE 302



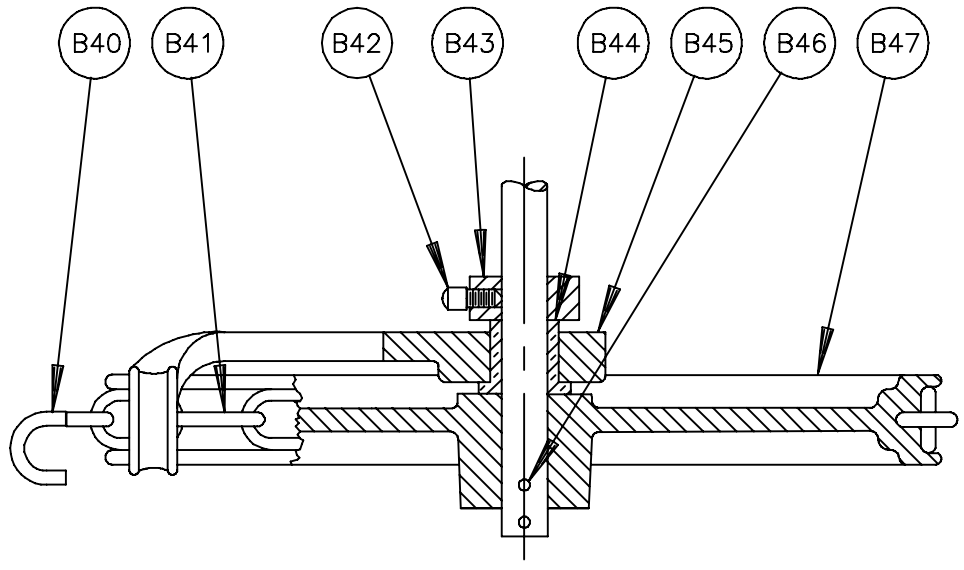
DETAIL "B"
CONSTRUCTION FOR
STONEL SWITCH



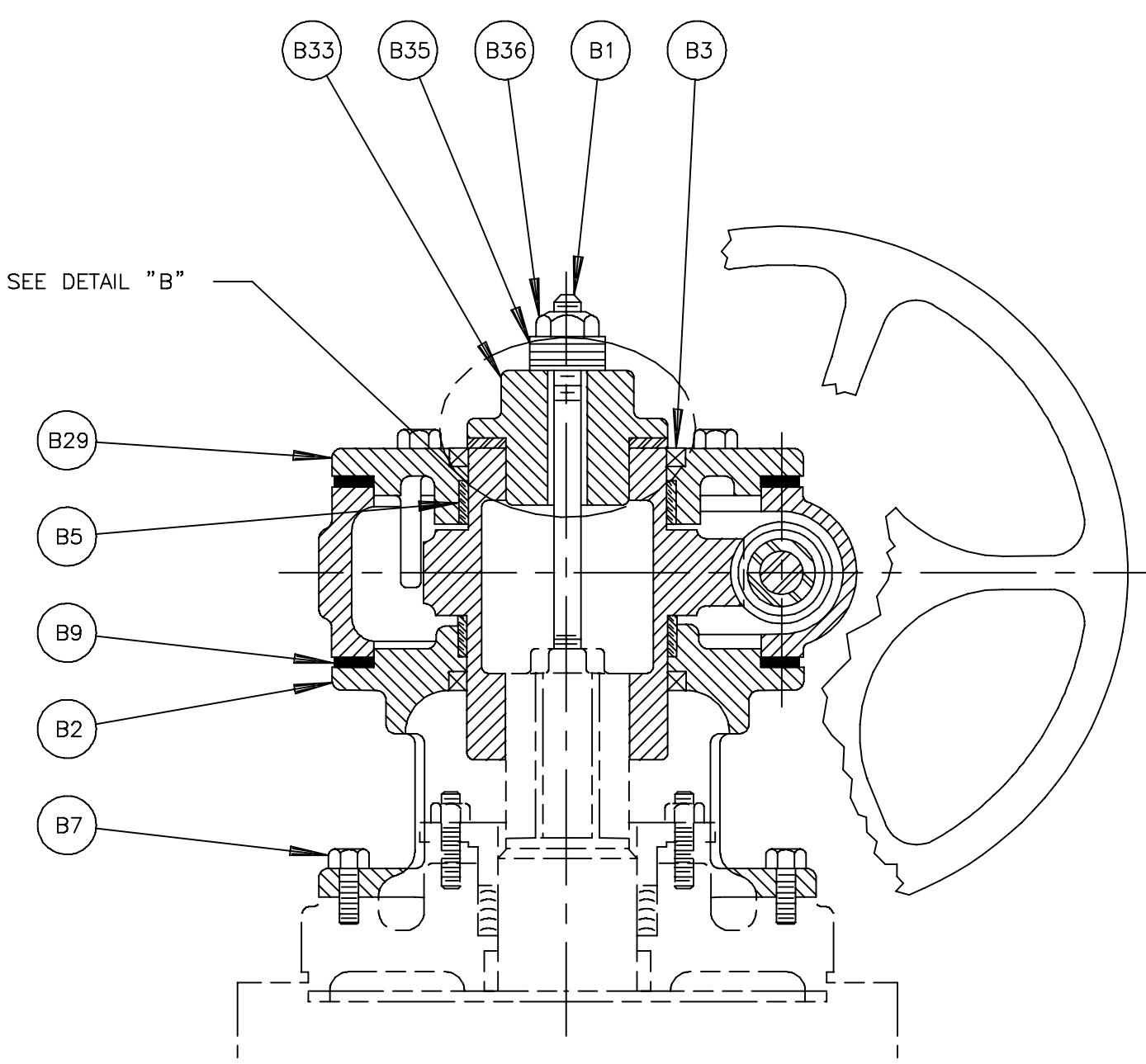
DETAIL A
GS-12 CONSTRUCTION



GS-N WRENCHING SQUARE



GS-6-CW
CHAINWHEEL ACTUATOR



NO	PART NAME	QTY	
B1	STUD	1	
B2	ADAPTOR	1	
B3	SEAL (GEAR SECTOR)	2	
B4			
B5	BEARING	2	
B6			
B7	SCREW	3.5, 4, 4.5, 5, 6, 8.5 & 10 VALVES SEE NOTE 3	NOT REQD
B7	SCREW	6.5, 8, 10.5, 12, 12.5, 14, 14.5, 16, 16.5, 18, 18.5 & 20 VALVES	6
B8	GEAR SECTOR	1	
B9	GASKET (HOUSING)	2	
B10			
B11	BEARING	1	
B12	HOUSING	1	
B13	WORM	1	
B14	PIN	1	
B15	THRUST BEARING (GS-6)	1	
B15	THRUST BEARING (GS-12)	2	
B16	BEARING	1	
B17	SEAL (HOUSING)	1	
B18	DRIVE SHAFT	1	
B19	PIN	1	
B20	HANDWHEEL	1	
B21	BEARING RACE (GS-6)	2	
B21	BEARING RACE (GS-12)	4	
B22	PIPE PLUG	1	
B23			
B24	JAM NUT	1	
B25	SET SCREW	1	
B26			
B27			
B28			
B29	COVER	1	
B30	SCREW	8	
B31	POINTER	1	
B32			
B33	WRENCHING SQUARE (SEE NOTE 4)	1	
B34			
B35	SPRING WASHER	5	
B36	LOCK NUT	1	
B37	DATA PLATE	1	
B38	DRIVE SCREW	2	
B39			
B40	CLOSING LINK	1	
B41	CHAIN	-	
B42	SET SCREW (SB16 OPTION ONLY)	1	
B43	COLLAR & SET SCREW (CHAINWHEEL)	1	
B44	BEARING	1	
B45	CHAIN GUIDE	1	
B46	PIN	2	
B47	CHAINWHEEL (GS-6)	1	
B48			
B49	WRENCHING SQUARE	1	
B50	PIN	1	
B51			
B52			
B53	OPEN TAG (24" HANDWHEELS ONLY)	1	
B54	DRIVE SCREW (24" HANDWHEELS ONLY)	2	

NOTE:

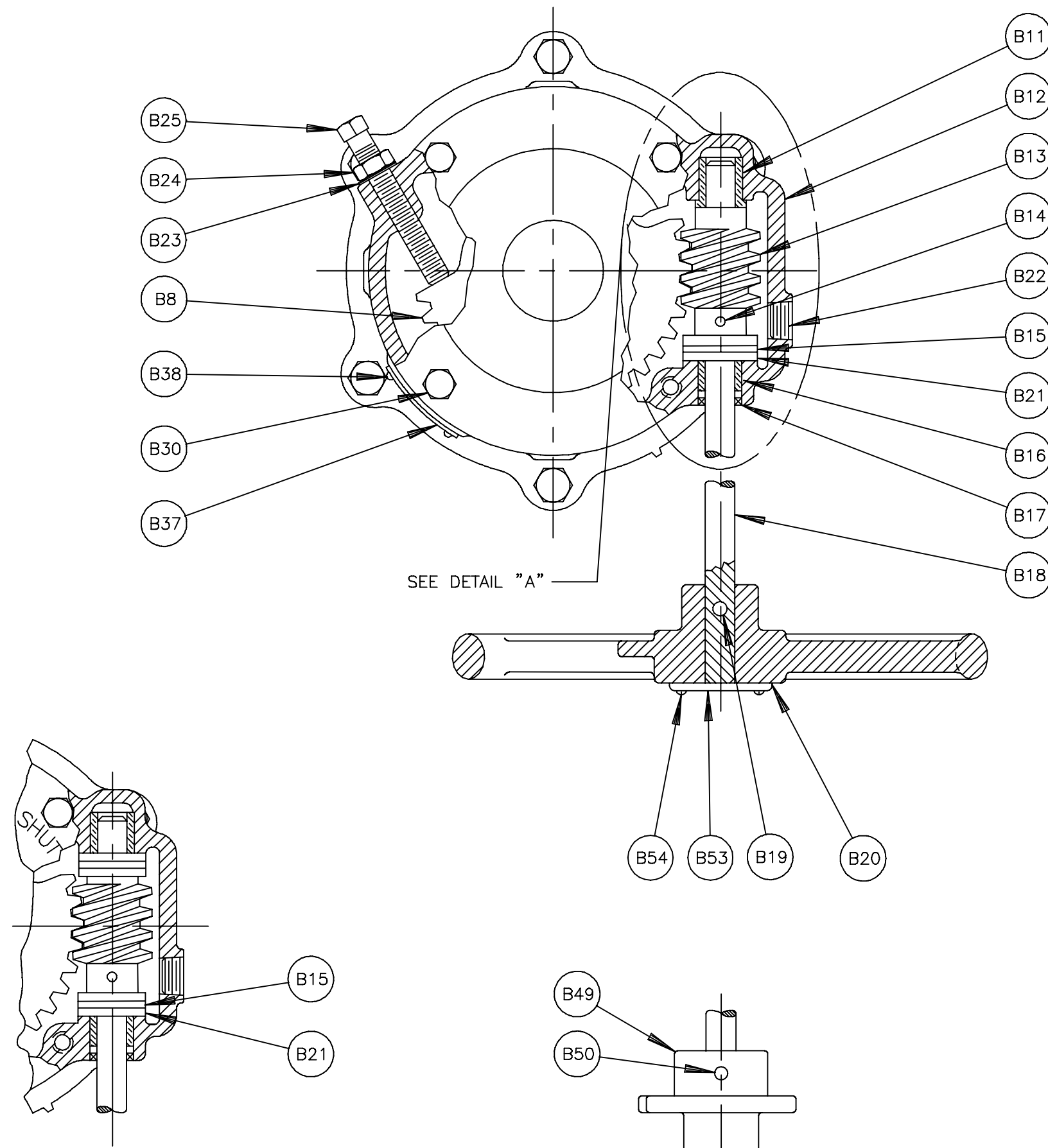
- RECOMMENDED SPARE PARTS ARE ITEMS NUMBER B3, B9 & B17.
- WHEN ORDERING PARTS, SPECIFY VALVE SIZE AND MODEL NUMBER FROM DATA PLATE, ALSO GIVE DRAWING NUMBER WITH PART NAME ITEM NUMBER AND QUANTITY.
- ITEM NUMBER B7 IS NOT REQUIRED ON THE 3.5, 4, 4.5, 5, 6, 8.5 & 10 VALVES USE BONNET SCREWS ON BODY ASSEMBLY TO MOUNT ACTUATOR TO VALVE.
- WHEN STONEL SWITCH IS USED, ITEM B33, WRENCHING SQUARE IS REPLACED BY A STUD SUPPORT.

L	61668	10/13/08	K	61398	03/24/06	J	60075	02/22/01	H	54620	04/28/99	G	54230	04/09/98	F	53449	12/23/96	E	53132	06/23/95	D	52951	12/01/94	C	52689	02/25/94	B	51744	06/15/92	A	51112	03/04/91
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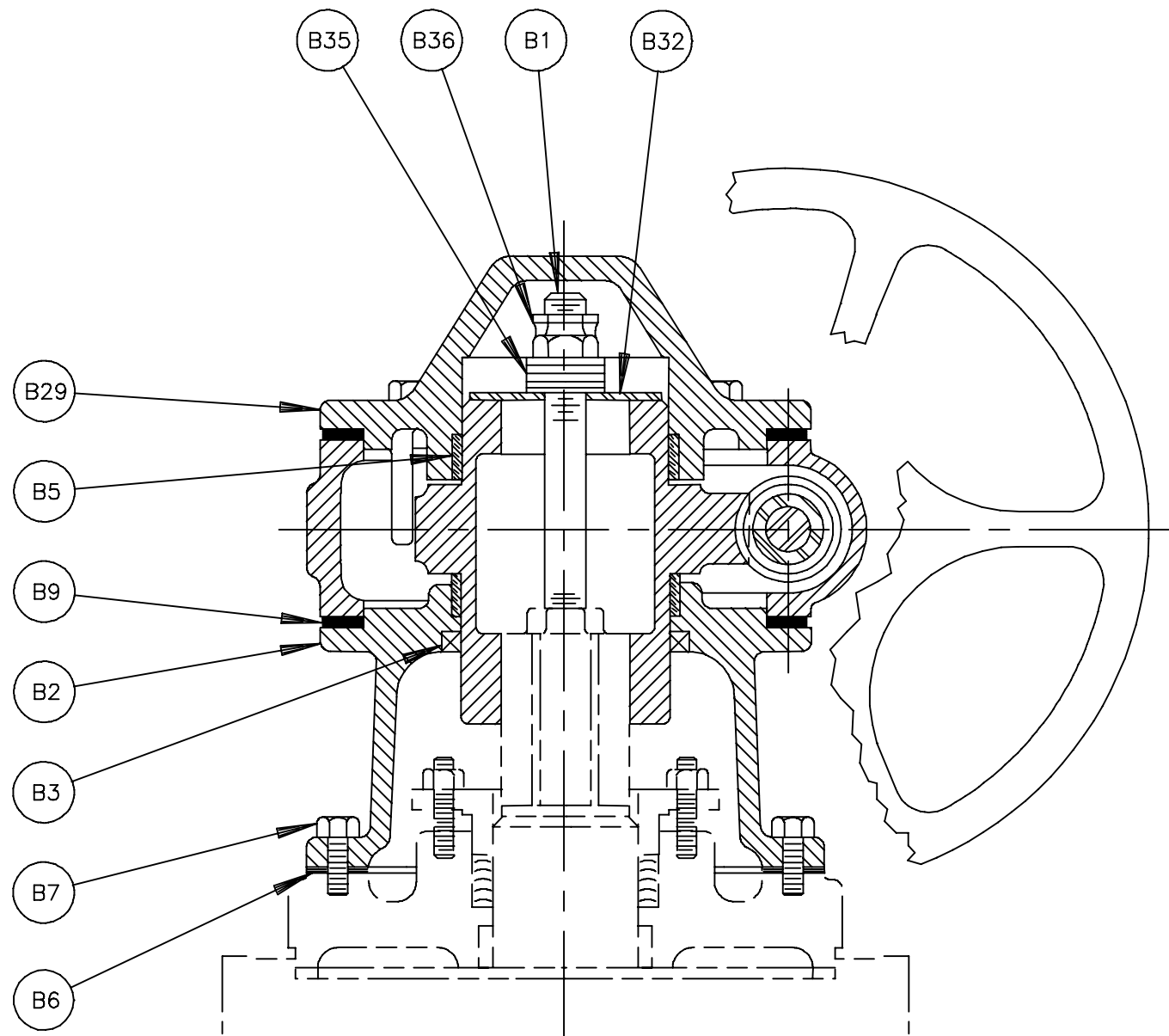
GS-6 WITH HANDWHEEL, CHAINWHEEL AND NUT ACTUATORS OR GS-12 WITH HANDWHEEL AND NUT FOR USE WITH ECCENTRIC VALVES

DOCT. CODE	DRAWN	APPROVED	A22553
C1	RJP	BOOS	
CHECKED	DATE		
	10-30-81		



DETAIL "A"
GB-12 CONSTRUCTION

GB-_-N WRENCHING SQUARE



NO	PART NAME	QTY	
B1	STUD	1	
B2	ADAPTOR	1	
B3	SEAL (GEAR SECTOR)	1	
B4			
B5	BEARING	2	
B6	GASKET	1	
B7	SCREW	3.5, 4, 4.5, 5, 6, 8.5 & 10 VALVES SEE NOTE 3	NOT REQD
B7	SCREW	6.5, 8, 10.5, 12, 12.5, 14, 14.5, 16, 16.5, 18, 18.5 & 20 VALVES	6
B8	GEAR SECTOR		1
B9	GASKET		2
B10			
B11	BEARING		1
B12	HOUSING		1
B13	WORM		1
B14	PIN		1
B15	THRUST BEARING (GB-6)		1
B15	THRUST BEARING (GB-12)		2
B16	BEARING		1
B17	SEAL (HOUSING)		1
B18	DRIVE SHAFT		1
B19	PIN		1
B20	HANDWHEEL		1
B21	BEARING RACE (GB-6)		2
B21	BEARING RACE (GB-12)		4
B22	PIPE PLUG		1
B23	SEAL (HOUSING)		1
B24	JAM NUT		1
B25	SET SCREW		1
B26			
B27			
B28			
B29	COVER		1
B30	SCREW		8
B31			
B32	WASHER		1
B33			
B34			
B35	SPRING WASHER		5
B36	LOCK NUT		1
B37	DATA PLATE		1
B38	DRIVE SCREW		2
B39			
B40			
B49	WRENCHING SQUARE		1
B50	PIN		1
B51			
B52			
B53	OPEN TAG (24" HANDWHEELS ONLY)		1
B54	DRIVE SCREW (24" HANDWHEELS ONLY)		2

NOTE:

1. RECOMMENDED SPARE PARTS ARE ITEMS NUMBER B3, B9 & B17.
2. WHEN ORDERING PARTS, SPECIFY VALVE SIZE AND MODEL NUMBER FROM DATA PLATE, ALSO GIVE DRAWING NUMBER WITH PART NAME, ITEM NUMBER AND QUANTITY.
3. ITEM NUMBER B7 IS NOT REQUIRED ON THE 3.5, 4, 4.5, 5, 6, 8.5 & 10 VALVES USE BONNET SCREWS ON BODY ASSEMBLY TO MOUNT ACTUATOR TO VALVE.

G	54620	04/28/99
F	50312	09/17/98
E	53449	12/23/96
D	52951	12/01/94
C	52689	02/25/94
B	51744	06/15/92
A	51112	03/04/91

DeZURIK
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www.dezurik.com

GB-6 AND GB-12 GEAR UNIT FOR SUBMERGED SERVICE
WITH HANDWHEEL AND NUT ACTUATORS

DOCT. CODE	DRAWN	APPROVED
C1	RBA	BOOS
CHECKED	RJP	DATE
		10-30-81

A22555



RECOMMENDED LONG AND SHORT TERM STORAGE PROCEDURES

LONG-TERM STORAGE

1. All resilient seated valves shall be stored in the open (unseated) position.
2. All valves with adjustable packing glands should have the packing gland loosened prior to storage.
3. Valves shall be separately packaged in a sealed polyethylene plastic enclosure with a minimum of one package of desiccant inside, dependent upon valve size.
4. Prepared valves shall be warehoused in a clean, dry, indoor facility on concrete or raised racks, with temperature ranging from 35°F to 95°F (2°C to 35°C).
5. Valves shall not be near electric motors or other equipment which may emit Ozone which can cause deterioration of elastomers used for valve and actuator components.
6. The valves shall be inspected periodically to replace the desiccant if required, and to repair any damage to the polyethylene plastic enclosures.
7. Valves with cylinder operators and control valves which are stored for extended periods may be subject to cylinder blow-by caused by permanent distortion of any of the seals. Valves should be operated prior to installation and damaged seals replaced.
8. Valves with electric motor operators shall be stored in accordance with the individual motor manufacturer's recommended long-term storage procedures in addition to Paragraphs 1, 2 and 3 above.
9. All electrical components, if applicable, should be inspected and all electrical contacts cleaned before operation.
10. Valves shall be enclosed in fully sheathed wooden crates or boxes.

SHORT-TERM STORAGE

1. Valve should be protected from the weather, avoid exposure to excessive moisture or dirt. Store at temperatures ranging from 35°F to 95°F (2°C to 35°C).