

Montalvo

Guardian
Safety Chucks

EST. 1947

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Better Web Control®

NEW



2015 Catalog



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The Montalvo Guardian Safety Chuck

Emphasis on design, flexibility, technology and quality.

- The journal inserts are the only wear parts and are quickly and easily removed using only two wrenches!
- The standard chuck journal seat is hardened to Rc = HRC 48-50.
- The steel handwheel has a black oxide finish.
- Within maximum and minimum limits the shaft end may be customized.
- All shaft ends are drilled, tapped and machined with keyway.
- All housings are pre-drilled and tapped to accept a Montalvo brake.
- Mounting holes on flange mount chucks are counter bored.
- DXF files and 3D models are available for all sizes.

Guardian safety chucks are designed with flexibility in mind to meet specific customer needs. Montalvo engineers can assist you with the proper technical solution for your web winding application.

Standards

The Montalvo Corporation, world renowned supplier of quality web control products and services, offers a full line of safety chucks as part of an ongoing effort to supply customers with a total web control package.

The Guardian includes a series of three different normal chuck sizes and one sliding chuck size. The sliding chuck is available with either a moving head or a moving head and shaft. Both allow customers to axially align a shafted roll to a web guide or a trimmer on either unwind or rewind operations. The journal seat/handwheel assembly bolts to the shaft with four bolts and is easily serviced.

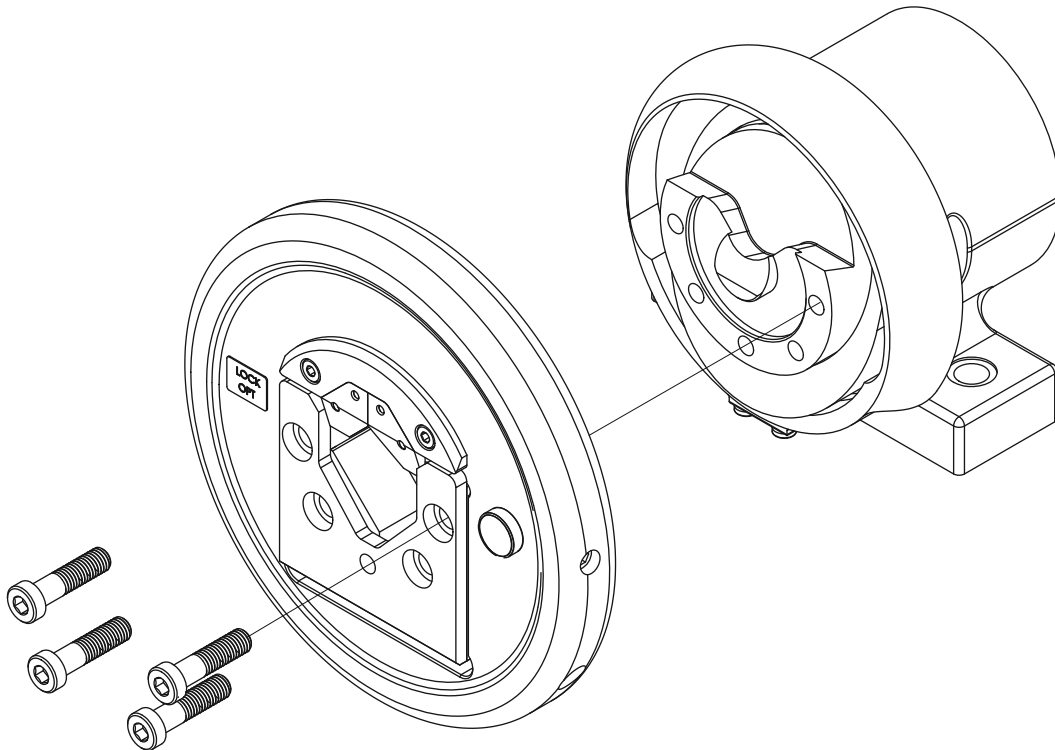
Guardian chucks provide a safe and effective way of coupling torque devices to shafted unwinds or rewinds. Heavy duty bearing design ensures maximum load and speed capacities for most converting applications. The easily replaceable journal seat / handwheel assembly supports a variety of shaft journal configurations without modification. Tightly held journal seat tolerances also provide superior roll winding / unwinding concentricity.

Shaft lengths are available to correspond to all Montalvo brakes and a wide variety of applications. Montalvo application engineers are available to assist customers with new installations or retrofit applications.

Check out Montalvo's wide range of web control products for the converting, paper, composites, nonwovens and plastic film industries. These include brakes, clutches, electronic tension controls and indicators, load cells, and safety chucks.

The Difference

Handwheels and journal seats are critical parts of a safety chuck and subject to wear. That is why all Guardian chucks are equipped with an easily replaceable journal seat/handwheel assembly. This component is designed to be quickly installed or removed using only one wrench!



- The tilting handwheel/chuck journal seat assembly, is interchangeable as a unit.
- Handwheels are available with two different types of journal seats. They can be mounted to the same type of chuck without replacing the shaft.
- The replacement handwheel/chuck journal seat assembly is mounted concentrically to the shaft and is attached using high tensile strength bolts.
- The finger guard covers the gap between handwheel and housing.
- Our modular design is not only maintenance friendly but also minimizes inventory of spare parts.

Product Overview

“Normal” safety chucks

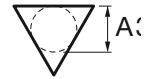
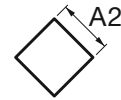
- Pedestal and flange chucks
- With and without shaft end
- Square dimensions 20 - 50 mm
- Roll weights to 30,000N*

“Sliding” safety chucks

- Pedestal and flange chucks
- With and without shaft end
- With “stationary” or with “sliding” shaft end
- 50 or 100 mm axial adjustment
- Square dimensions 20 - 50 mm
- Roll weights to 30,000N*

Consider using Montalvo Tension Control Brakes and Clutches

- High Thermal Capacity
- Multiple Torque Range
- Easy Maintenance



Size	Max. Roll Weight* N (lb)	Max. Torque Nm (in-lb)	Max. Shaft Extension mm (in.)	V-Type Square Journal Seat* A2 = mm (in.)	Triangle Journal Seat A3 = mm (in.)
G1000	10,000 (2,248)	200 (1,770)	Ø35k6 x90 (3.54)	20-30 (1.000-1.25)	20-30 (0.787-1.181)
G1800	18,000 (4,047)	380 (3,363)	Ø50k6 x100 (3.94)	30-40 (1.25-1.50)	32-38 (1.260-1.496)
G3000	30,000 (6,744)	1,200 (10,621)	Ø65k6 x140 (5.51)	40-50 (1.50-2.00)	40-47 (1.575-1.850)

***Chucks with A2 journal seats are required to have safety locks if roll weights exceed 70% of maximum roll weight.**

Deflection, Torque and Winding Speed

Deflection

Roll weight is the first consideration in the selection of a chuck.

The maximum permissible roll weight given in the data sheets refers to shaft journal design A3.

Chucks with A2 journal seats are required to have safety locks if roll weights exceed 70% of maximum roll weight.

The information given in this catalog refers to the load capacity of our chucks. You must consider the design, size, stability and hardness of the shaft journal as well (see below).

Torque

The maximum permissible roll weight given in the data sheets refers to shaft journal design A3.

Winding Speed

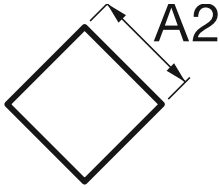
“Standard” chucks may be used up to 300 m/min winding speed.

For winding speeds over 300 m/min., “high speed, dynamically balanced” chucks should be used (see “Options”).

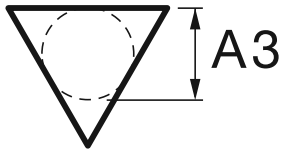
If your application requires combining maximum rated roll weight, torque and winding speed, please contact Montalvo for technical support.

Shaft Journal Designs

V-Type Square (A2)



- Easy loading of the winding shaft
- Common to most air shaft journals
- Special attention to alignment and shaft deflection is required
- Reduced play between chuck seat and journal
- Tolerance 0 / +0.1 mm
- Safety lock required when loads exceed 70% max. load rating.



Triangle (A3)

- Recommended for high rpm applications
- Easy loading of the winding shaft
- Max. capacity for roll weight & torque
- Reduced play between chuck seat and journal
- Tolerance H7

Shaft End

Shaft end dimension may be specified by the customer.

If the dimensions of the shaft end are within the min./max. limits given in the data sheets and can be produced on a CNC-lathe, there is no additional charge.

- The max. shaft diameter cannot be exceeded.
- Shaft ends, shown in the part designation by the suffix -MW-(D)x(L) are machined with a parallel key to DIN 6885, part 1, and with end threaded to DIN 332, form D. Shafts may be specified to inch tolerances as well.

Ø SHAFT (mm)	THREAD	DEPTH
over 16 to 21	M6	16
over 21 to 24	M8	19
over 24 to 30	M10	22
over 30 to 38	M12	28
over 38 to 50	M16	36
over 50 to 85	M20	42

Winding Shaft Journal

There are min./max. limits for journal seat geometry as shown on data sheets:

- Within these limits any diameter and length may be specified.
- The published values for roll weight and torque always refer to the maximum value of the journal seat geometry A3.
- To minimize wear, maximum journal size should be chosen.

In addition to total load and winding speed, deflection of the winding shaft plays an important role in the life expectancy of the journal seat and shaft journal. Therefore, please note the following:

- Carefully chamfered edges provide for safe closing function.
- Conical or tapered winding shaft journals offer improved performance and should be used whenever possible.
- Winding shafts designed for minimal deflection should be used.
- The hardness of the shaft journals and the chuck journal seat should be made to suit each other. This means that the part which is least expensive and easiest to replace can be designed as the wear part. Expensive winding shafts should always be matched with chucks having journal seats of lower hardness.

With the exception of light applications, low winding speeds, short winding shafts or low bearing loads, winding shaft journals should conform to the specifications given in the chapters “Normal-Chucks” and “Sliding-Chucks”!

Installation

Note the following when installing chucks:

- Excessive deflection of the winding shaft causes an upward force on the handwheel with each revolution when it is in the 12 o'clock or loading position.
- Continuous abuse of this type leads to wear on the chuck housing.
- In cases of advanced wear to the chuck housing, the handwheel could be forced open in the downward position. This presents the risk that the winding shaft could fall out during operation.
- Wear to the chuck housing presents extreme risk of accident! (See "Maintenance" section covering possible defects and their causes!)

During installation, or before start-up, please check the following:

- Does the winding shaft load easily?
- Does the winding shaft have axial play of 0.5 mm?
- Check for proper closing function of the handwheel (it should be possible to open and close the handwheel by hand without using excessive force and without the use of tools).
- Check that the chucks are precisely aligned. Ensure that, with the handwheels closed, the winding shaft can be moved easily in an axial direction when the chuck is in loading position as well as at various rotating positions.

Please contact Montalvo in case of special situations.

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Handwheel Safety Lock

Options:

- OS designates **NO** lock
- RS designates **Right** side lock (shown below)
- LS designates **Left** side lock

Sometimes it may be prudent or even imperative, with high-speed chucks for example, to install a safety lock which will avoid unintentional opening of the handwheel during operation.

The safety lock system:

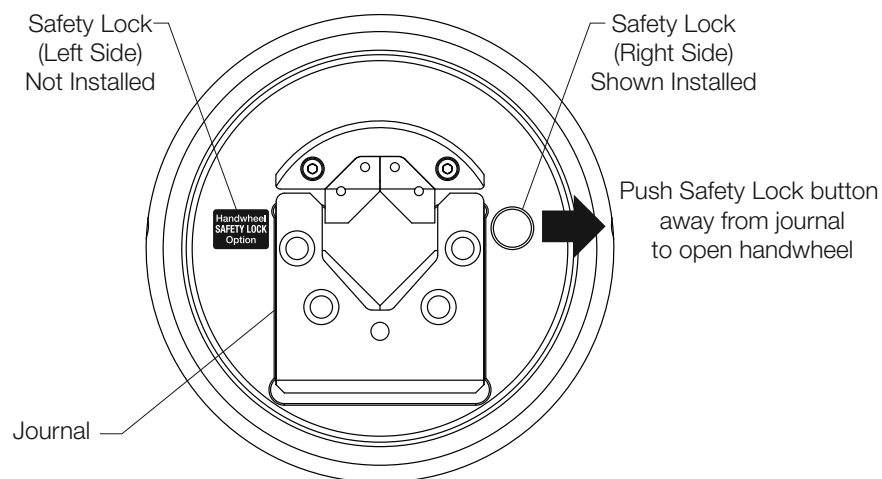
- A spring loaded, hardened pin indexes into a bore opposite the ball catch.
- In order to unlock the handwheel this pin must be pushed away from the center of the hand wheel (see below).
- When closing the hand wheel the pin clicks into place automatically.

A handwheel safety lock is shown below.

- Lock installed on RIGHT side shown.
- Can be ordered with NO locks, RIGHT lock or LEFT lock.
- Can be easily installed, swapped from side to side or repaired by customer.



Chucks with A2 journal seats are required to have safety locks if roll weights exceed 70% of maximum roll weight.



Axial Carrier

The axial carrier is standard with sliding safety chucks. It can also be mounted on normal chucks.

Normal chucks can be mounted on two separate sliding bases and the axial connection of the chucks can be transmitted by the winding shaft.

The use of axial carriers can also be useful, if the chucks are installed rigidly and a precise positioning of the winding shaft is required. In this event the winding shaft journals must be designed to match sliding safety chucks.

Conical Chuck Journal Seat

A cost effective alternative to conical shaft journals.

A cost effective alternative to machining journals with difficult and expensive undercuts is the conical journal seat, which allows the use of simple journals without the risk of excessive stress and wear. They are special order - please call Montalvo for further details.

Handwheel Open/Closed Indicator and Handwheel Opening Position Indicator

Option 12h (handwheel opening position)

- Two different designs available: 12h/li (left) & 12h/re (right)
- Ensures that the proximity switch cable does not hinder operation

Both options (handwheel open/closed and opening position)

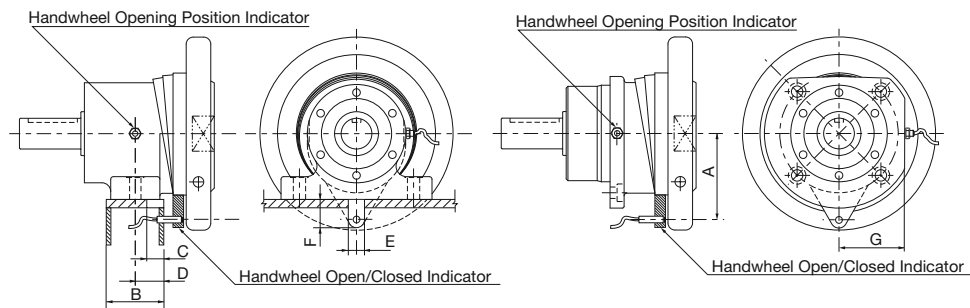
- May be installed separately or together

Definition “left / right”

- Determined by the front view of the handwheel

Available sizes (“normal” design / pedestal or flange mount)

- G1000, G1800 and G3000



SIZE	A	B	C	D	E	F	G
G1000	76	60	23	30	20	19	67
G1800	96	65	20	32.5	20	29	75
G3000	107	120	20	60	20	40	85

Electrical Specifications

Voltage 12-24 VDC

Circuitry PNP (3-conductor, + switched)

Characteristic NO

Power..... max. 100 mA (not short circuit resistant)

Cable..... 2m

High Speed Safety Chucks

High speed safety chucks should be used for web speeds over 300 m/min.

High speed safety chucks offer the following:

- Handwheel safety lock
- Balanced shaft and handwheel
- Journal design A3 only
- Maximum load = 0.6 x catalog value

Note: adhere to the installation instructions and pay special attention to the journal design (tolerance, materials, hardness, etc.)

Increased Handwheel Opening Angle

Guardian safety chuck handwheels can be fully opened within a range of +/- 10 degrees from the vertical axis.

If the shaft is turned beyond that, the handwheel begins to close and is totally closed at 30 degrees from the vertical axis.

If required, opening angle can be enlarged to customer specifications. Never use an opening angle in excess of +/- 30 degrees as this increases the risk of the winding shaft falling out of the chuck!

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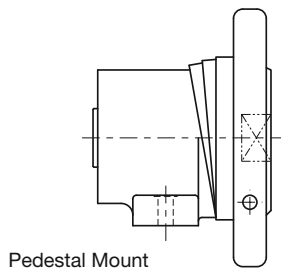
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Overview

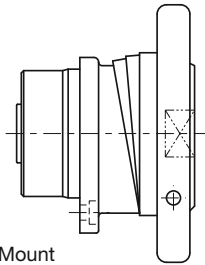
Guardian Normal Safety Chucks are available as pedestal or flange mount.



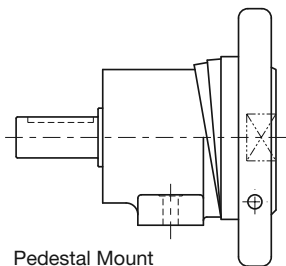
Pedestal Mount

-OW-

Without shaft end



Flange Mount

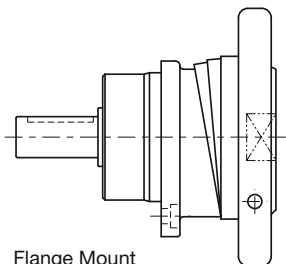


Pedestal Mount

-BR-

Shaft end

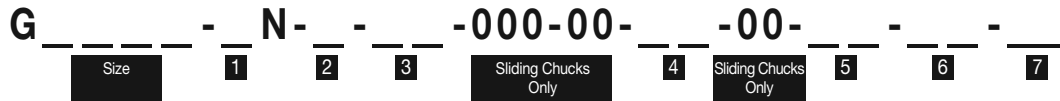
Prepared for mounting a brake



Flange Mount

Order Code

The following is an explanation of the code used to describe Guardian normal safety chucks. At the beginning of each description is the chuck size. It indicates the maximum roll weight in kilograms.



1	Type Of Chuck & Mount	SN	normal / pedestal mount
		FN	normal / flange mount
2	Journal Seat Design	2	V-type square (A2)
		3	triangle (A3)
3	Journal Seat Size	—	measurement of A (journal seat) in millimeters (mm)
4	Handwheel Safety Lock	OS	without handwheel safety lock
		RS	with Right Side handwheel safety lock
		LS	with Right Side handwheel safety lock
5	Axial Carrier	OX	without axial carrier
		MX	with axial carrier
6	Type Of Chuck End	OW	without shaft end
		BR	with shaft end and bolt circle in housing or sliding sleeve (for brake mounting)
7	Shaft End / Brake		Diameter x Length (DxL) of shaft end (additional specs may be required)
		—	drawing number of special shaft
		—	Montalvo brake model number (or other brake specs)

Examples

The following examples are of typical order codes:

G1800-SN-2-40-000-00-OS-OX-OW

G1800	maximum roll weight up to 1,800 kilograms (kg) (or 18,000 N)
SN	normal chuck in pedestal mount
2	journal design is V-type square (A2)
40	journal size of 40 mm (measurement A from data sheet)
000	option for sliding chucks only
00	option for sliding chucks only
OS	without handwheel safety lock
OX	without axial carrier
OW	without shaft end

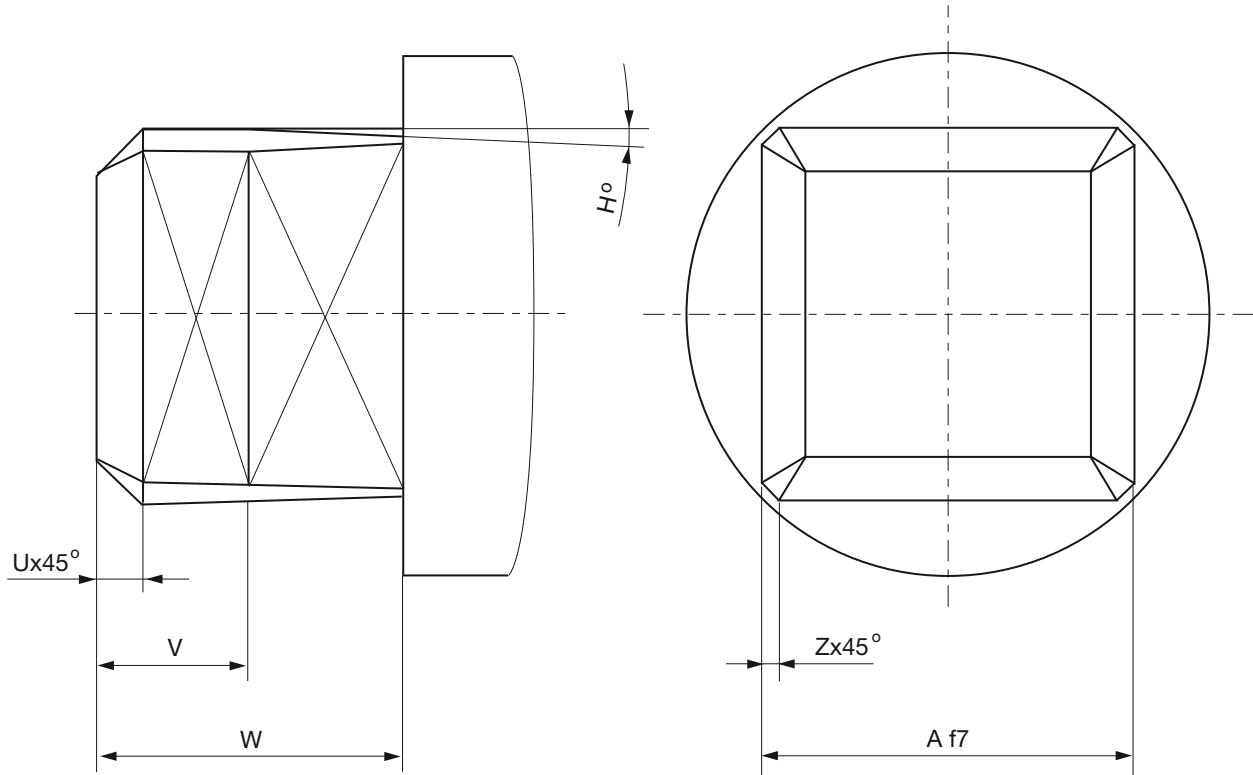
G3000-FN-2-50-000-00-RS-OX-BR-50k6x110

G3000	maximum roll weight up to 3,000 kilograms (kg) (or 30,000 N)
FN	normal chuck in flange mount
2	journal design is square normal (A2)
50	journal size of 50 mm (measurement A from data sheet)
000	option for sliding chucks only
00	option for sliding chucks only
RS	with Right Side handwheel safety lock
OX	without axial carrier
BR	with shaft end and bolt circle in housing for brake attachment
50k6x110	diameter x length of shaft end (including key acc. DIN 6885, sh. 1 and thread on face acc. DIN 332, form D)

G1000-SN-3-30-000-00-LS-OX-BR-V300

G1000	maximum roll weight up to 1,000 kilograms (kg) (or 10,000 N)
SN	normal chuck in pedestal mount
3	journal design is triangle (A3)
30	journal size of 30 mm (measurement A from data sheet)
000	option for sliding chucks only
00	option for sliding chucks only
LS	with Left Side handwheel safety lock
OX	without axial carrier
BR	with shaft end and bolt circle in housing for brake attachment
V300	type of brake: Montalvo V Series High Performance Single Disc

Square Journal (A2)

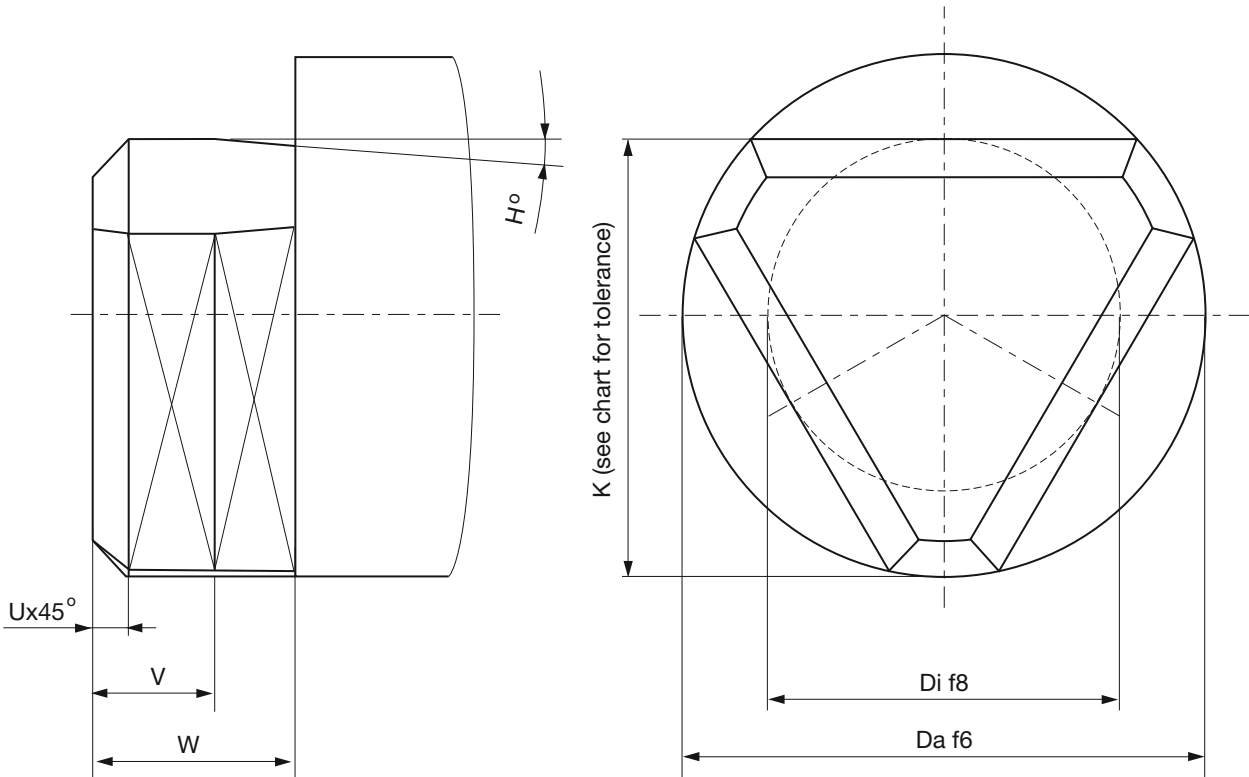


SIZE	A min.	A max.	W	V	U	Z	H
G1000	20	30	27	14	4	1	0.3
G1800	30	40	30	15	5	1.5	0.4
G3000	40	50	32	16	5	2	0.5

Legend:

A min.	minimum square dimension
A max.	maximum square dimension
W	minimum total length of the journal
V	length of the cylindrical part of the journal
U	front face bevel
Z	side bevel
H	angle for journal undercut

Triangular Journal (A3)



SIZE	Di (f8)	Tolerance for K	W	V	U	H
G1000	20	-0.027/-0.036	27	14	4	0.3
G1000	over 20 to 30	-0.031/-0.039	27	14	4	0.3
G1800	32 to 33	-0.033/-0.044	30	15	5	0.4
G1800	over 33 to 38	-0.037/-0.047	30	15	5	0.4
G3000	40 to 47	-0.037/-0.047	32	16	5	0.5

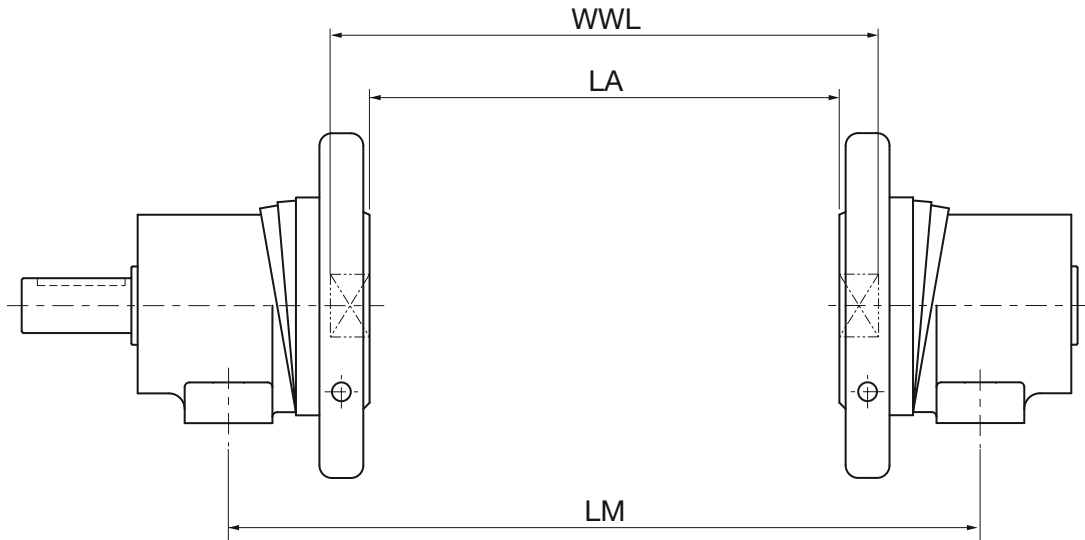
Legend:

Di	triangle - inner circle diameter (tolerance f8)
Da	triangle - circumference diameter (tolerance f6) $Da = Di \times 1.5$
W	minimum total length of the journal
V	length of the cylindrical part of the journal
U	front face bevel
K	control dimension (note tolerances) $K = Di/2 + Da/2$
H	angle for journal undercut

Winding Shaft Lengths

Calculate winding shaft lengths for PEDESTAL MOUNT (SN) normal chucks using the following formula:

$$\text{WWL} = \text{LM} - \text{K} - \text{AS}$$



SIZE	K	AS
G1000	112	0.5
G1800	130	0.5
G3000	194	0.5

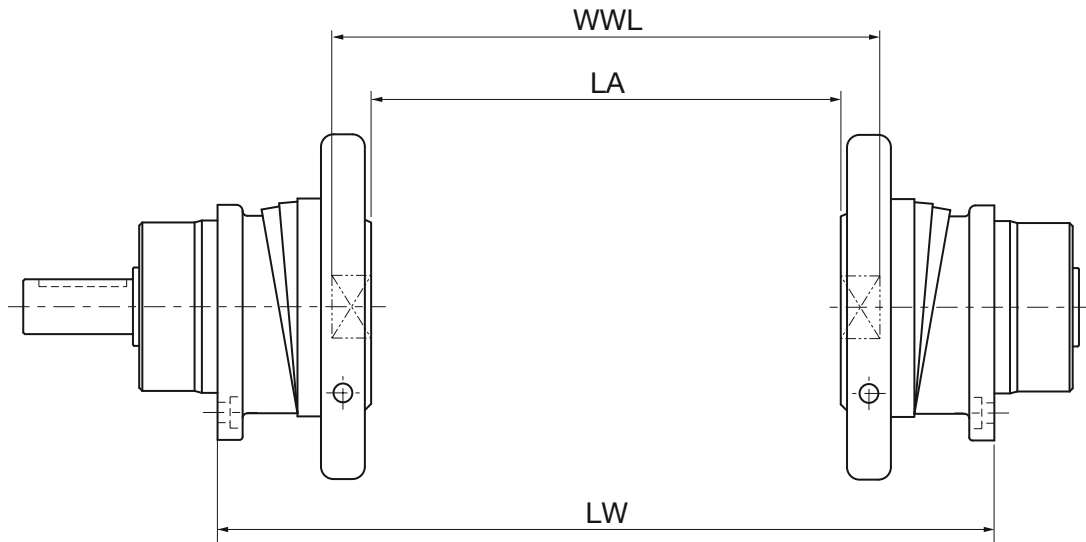
Legend:

WWL	winding shaft length
LA	distance between chucks
LM	mounting distance
K	specific constant
AS	axial play of the winding shaft

Winding Shaft Lengths

Calculate winding shaft lengths for FLANGE MOUNT (FN) normal chucks using the following formula:

$$WWL = LW - K - AS$$



SIZE	K	AS
G1000	138	0.5
G1800	146	0.5
G3000	206	0.8

Legend:

WWL	winding shaft length
LA	distance between chucks
LW	mounting distance
K	specific constant
AS	axial play of the winding shaft

Specification Sheets

The following five application data sheets will help to determine which Guardian normal safety chuck best meets your requirements. The information must be complete and accurate and must accompany each order. The sheets, when properly filled out, will clearly define a specific model of chuck. Remember... the most important method of identification of our chucks is the part number!

The part number will give all relevant information, e.g.:

- Design (shaft end, chuck journal seat, housing, etc.)
- Summary of all component parts used (part number = part number list)
- Options
- Finish, etc.
- Spare parts (sufficient info in part number to order spare parts)

The part number can be found on the packing and purchase order.

Below is a list of the specification data sheets for the Guardian Safety Chuck:

G1000 p. 25

G1800 p. 26

G3000 p. 27

NORMAL CHUCKS

Specifications

G1000- N- - - -000-00- -00- - - -

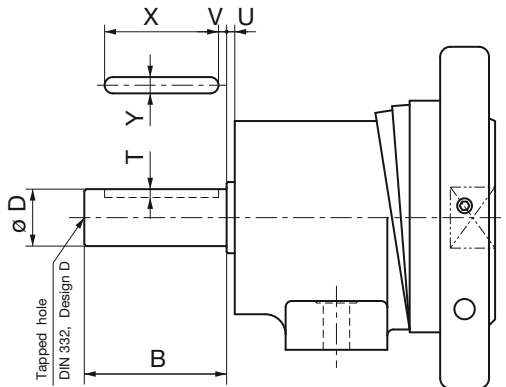
1
2
3
Sliding Chucks Only
4
Sliding Chucks Only
5
6
7

Roll weight max.: 10,000 N (2,248 lb)

Torque max.: 200 Nm (1,770 in-lb)

1	Housing	SN	☐ pedestal mount		☐ standard as per data sheet
		FN	☐ flange mount		☐ special housing as per drawing
2	Journal Seat (see page 6)	2	☐ V-Type Square (A2) ◇	—	☐ Special as per drawing
		3	☐ Triangle (A3) ▽		
3	Size of Journal Seat	20	☐ (mm) standard with ◇		
		25	☐ (mm) standard with ◇		
		30	☐ (mm) standard with ◇▽	—	☐ (mm) min. / max. (data sheet)
4	Safety Lock (see page 11)	OS	☐ without safety lock	LS	☐ with safety lock - LEFT side
		RS	☐ with safety lock - RIGHT side		
5	Axial Carrier (see page 12)	OX	☐ without axial carrier		
		MX	☐ with axial carrier plate		
6	Shaft End (see page 7)	OW	☐ without shaft end	BR	☐ with shaft end

Shaft end to be defined when option 6 is equal to BR



☐	std. shaft (mm)	☐	special shaft
B	70	B	
D	Ø28 k6	D	
X	56	X	
Y	8	Y	
T	4	T	
U	4	U	
V	4	V	
☐	Special shaft end as per attached drawing		

☐ Brake attachment: Type of brake _____ or define special shaft end (see above)

Further Options	Hardness	☐ 48/50 HRC = standard	☐ _____ HRC	☐ not hardened	see page 8
	Seat	☐ cylindrical = standard	☐ conical (special order)		see page 12
	Balanced	☐ not balanced = standard	☐ balanced Q=_____ n=_____ rpm		see page 14
	Indication	☐ Handwheel Open/Closed	☐ 12h left	☐ 12h right	see page 13
Technical Data	Roll weight max.	_____ N (_____ lb)	Winding shaft diameter	_____ mm (_____ in)	
	Roll diameter max.	_____ mm (_____ in)	Winding shaft length	_____ mm (_____ in)	
	Roll width max.	_____ mm (_____ in)	Deflection of winding shaft	_____ mm (_____ in)	
	Roll width min.	_____ mm (_____ in)	Torque max.	_____ Nm (_____ in-lb)	
	Winding speed max.	_____ m/min (_____ ft/min)	Substrate:		
	Tension max.	_____ N (_____ lb)	Additional:		

Company:

Name:

Date:

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NORMAL CHUCKS

Specifications

G1800- N- - - -000-00- - -00- - - -

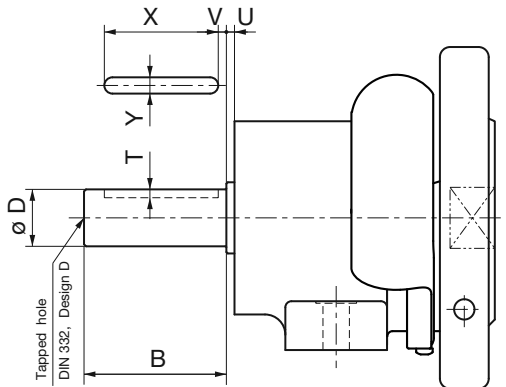
1
2
3
Sliding Chucks Only
4
Sliding Chucks Only
5
6
7

Roll weight max.: 18,000 N (4,047 lb)

Torque max.: 380 Nm (3,363 in-lb)

1	Housing	SN	☐ pedestal mount		☐ standard as per data sheet
		FN	☐ flange mount		☐ special housing as per drawing
2	Journal Seat (see page 6)	2	☐ V-Type Square (A2) ◇		
		3	☐ Triangle (A3) ▽	—	☐ Special as per drawing
3	Size of Journal Seat	30	☐ (mm) standard with ◇	36	☐ (mm) - standard with ▽
		35	☐ (mm) standard with ◇		
		40	☐ (mm) standard with ◇	—	☐ (mm) min. / max. (data sheet)
4	Safety Lock (see page 11)	OS	☐ without safety lock	LS	☐ with safety lock - LEFT side
		RS	☐ with safety lock - RIGHT side		
5	Axial Carrier (see page 12)	OX	☐ without axial carrier		
		MX	☐ with axial carrier plate		
6	Shaft End (see page 7)	OW	☐ without shaft end	BR	☐ with shaft end

Shaft end to be defined when option 6 is equal to BR



☐	std. shaft (mm)	☐	special shaft
B	70	B	
D	Ø35 k6	D	
X	56	X	
Y	10	Y	
T	5	T	
U	4	U	
V	4	V	
☐	Special shaft end as per attached drawing		

☐ Brake attachment: Type of brake _____ or define special shaft end (see above)

Further Options	Hardness	☐ 48/50 HRC = standard	☐ _____ HRC	☐ not hardened	see page 8
	Seat	☐ cylindrical = standard	☐ conical (special order)		see page 12
	Balanced	☐ not balanced = standard	☐ balanced Q=_____ n=_____ rpm		see page 14
	Indication	☐ Handwheel Open/Closed	☐ 12h left	☐ 12h right	see page 13
Technical Data	Roll weight max.	_____ N (_____ lb)	Winding shaft diameter	_____ mm (_____ in)	
	Roll diameter max.	_____ mm (_____ in)	Winding shaft length	_____ mm (_____ in)	
	Roll width max.	_____ mm (_____ in)	Deflection of winding shaft	_____ mm (_____ in)	
	Roll width min.	_____ mm (_____ in)	Torque max.	_____ Nm (_____ in-lb)	
	Winding speed max.	_____ m/min. (_____ ft/min)	Substrate:		
	Tension max.	_____ N (_____ lb)	Additional:		

Company:

Name:

Date:

NORMAL CHUCKS

Specifications

G3000- N- - - -000-00- -00- - - -

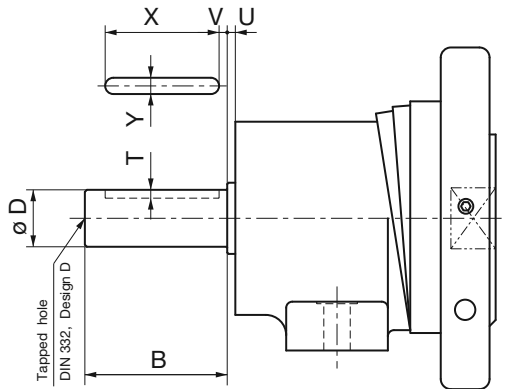
1
2
3
Sliding Chucks Only
4
Sliding Chucks Only
5
6
7

Roll weight max.: 30,000 N (6,744 lb)

Torque max.: 1,200 Nm (10,621 in-lb)

1	Housing	SN	☐ pedestal mount		☐ standard as per data sheet
		FN	☐ flange mount		☐ special housing as per drawing
2	Journal Seat (see page 6)	2	☐ V-Type Square (A2) ◇		
		3	☐ Triangle (A3) ▽	—	☐ Special as per drawing
3	Size of Journal Seat	40	☐ (mm) standard with ◇	46	☐ (mm) - standard with
		45	☐ (mm) standard with ◇		
		50	☐ (mm) standard with ◇	—	☐ (mm) min. / max. (data sheet)
4	Safety Lock (see page 11)	OS	☐ without safety lock	LS	☐ with safety lock - LEFT side
		RS	☐ with safety lock - RIGHT side		
5	Axial Carrier (see page 12)	OX	☐ without axial carrier		
		MX	☐ with axial carrier plate		
6	Shaft End (see page 7)	OW	☐ without shaft end	BR	☐ with shaft end

Shaft end to be defined when option 6 is equal to BR



☐	std. shaft (mm)	☐	special shaft
B	110	B	
D	Ø50 k6	D	
X	100	X	
Y	14	Y	
T	5.5	T	
U	4	U	
V	4	V	
☐	Special shaft end as per attached drawing		

☐ Brake attachment: Type of brake _____ or define special shaft end (see above)

Further Options	Hardness	☐ 48/50 HRC = standard	☐ _____ HRC	☐ not hardened	see page 8
	Seat	☐ cylindrical = standard	☐ conical (special order)		see page 12
	Balanced	☐ not balanced = standard	☐ balanced Q=_____ n=_____ rpm		see page 14
	Indication	☐ Handwheel Open/Closed	☐ 12h left	☐ 12h right	see page 13
Technical Data	Roll weight max.	_____ N (_____ lb)	Winding shaft diameter	_____ mm (_____ in)	
	Roll diameter max.	_____ mm (_____ in)	Winding shaft length	_____ mm (_____ in)	
	Roll width max.	_____ mm (_____ in)	Deflection of winding shaft	_____ mm (_____ in)	
	Roll width min.	_____ mm (_____ in)	Torque max.	_____ Nm (_____ in-lb)	
	Winding speed max.	_____ m/min. (_____ ft/min)	Substrate:		
	Tension max.	_____ N (_____ lb)	Additional:		

Company:

Name:

Date:

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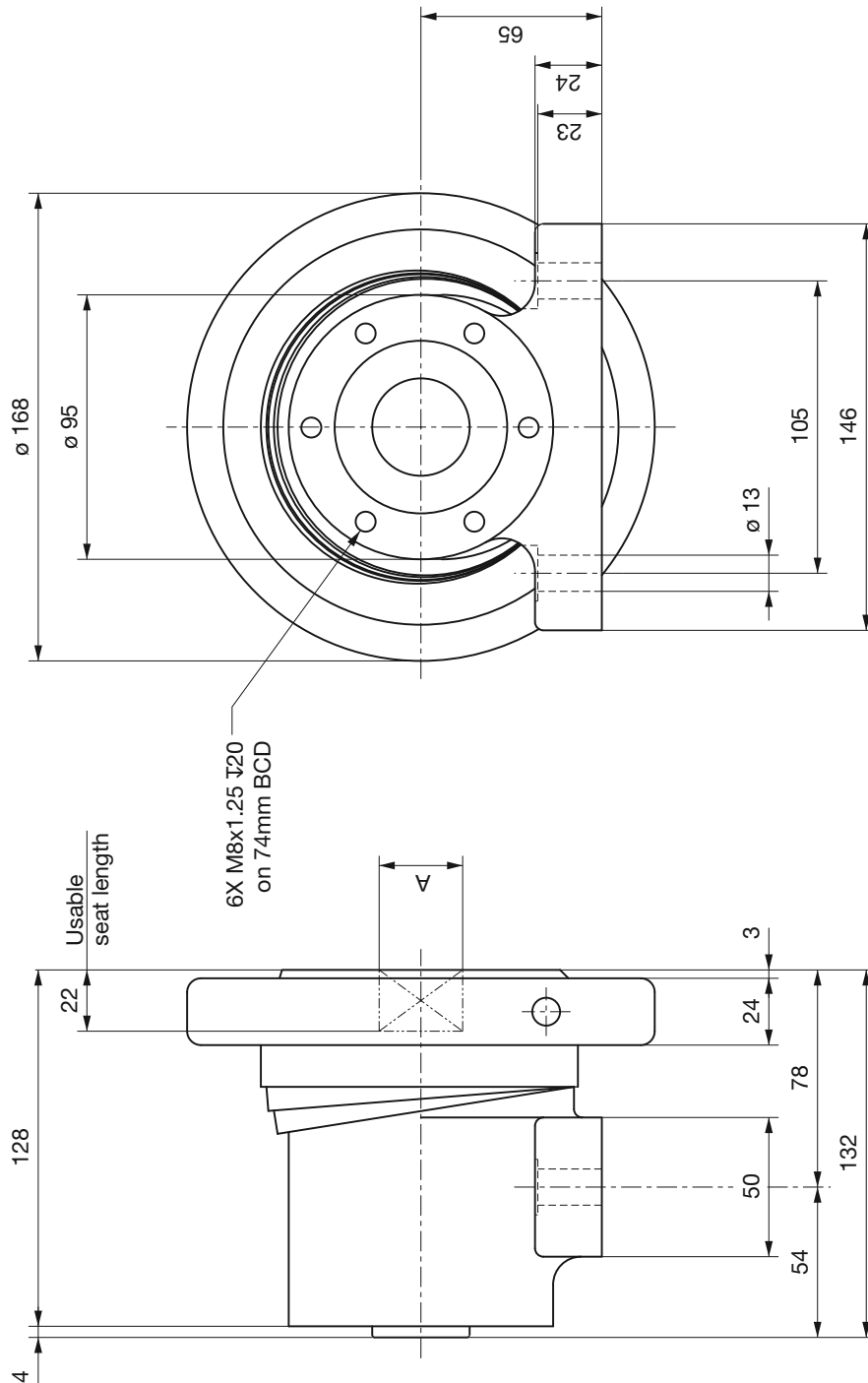
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G1000-SN-__-__-000-00-OS-00-OW

Roll weight: max. 10,000 N (2,248 lb)

Torque: max. 200 Nm (1,770 in-lb)



Standard Journal Types							
	Standard	min.	max.		Standard	min.	max.
A2	20/25/30	20	30	A3	30	20	30
							

Caution: To prevent damage, journals must be manufactured according to Montalvo specifications!

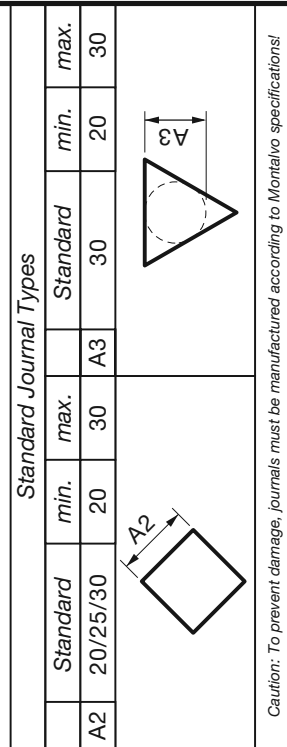
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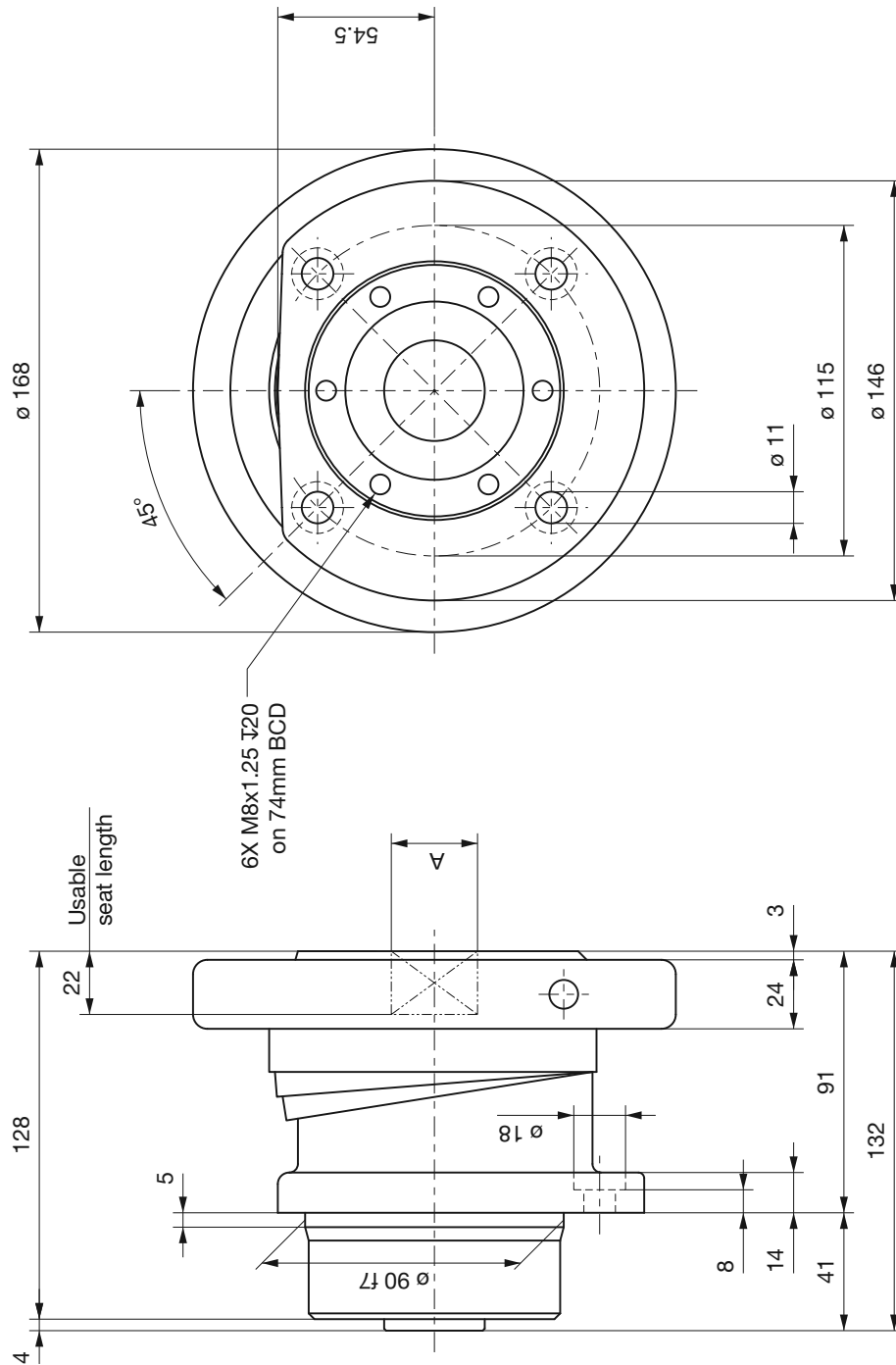
Torque: max. 200 Nm (1,770 in-lb)



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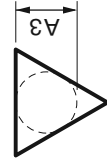
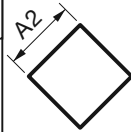
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Torque: max. 200 Nm (1,770 in-lb)



Standard Journal Types

	Standard	min.	max.	Standard	min.	max.
A2	20/25/30	20	30	A3	30	30



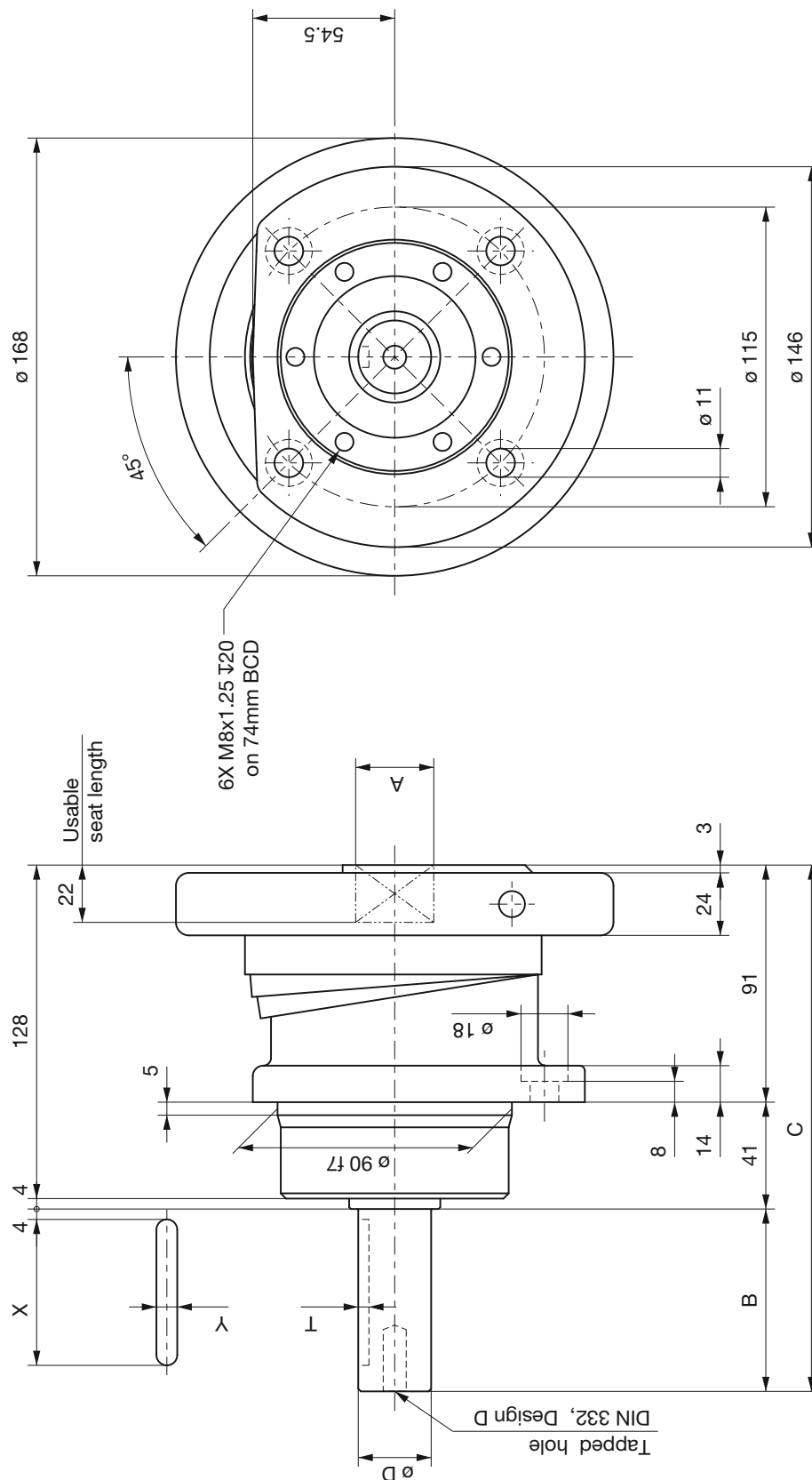
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Torque: max. 200 Nm (1,770 in-lb)



Available dimensions				
	Standard	min.	max.	Description
D	28 k6	20	35	Shaft diameter
B	70		90	Shaft length
C	202	132	222	Total length
X	56	DIN 6885 Bl. 1		Key length
Y	8			Key width
T	4			Key depth

G024.0

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Standard Journal Types							
	Standard	min.	max.		Standard	min.	max.
A2	20/25/30	20	30	A3	30	20	30
							

Caution: To prevent damage, journals must be manufactured according to Montalvo specifications!

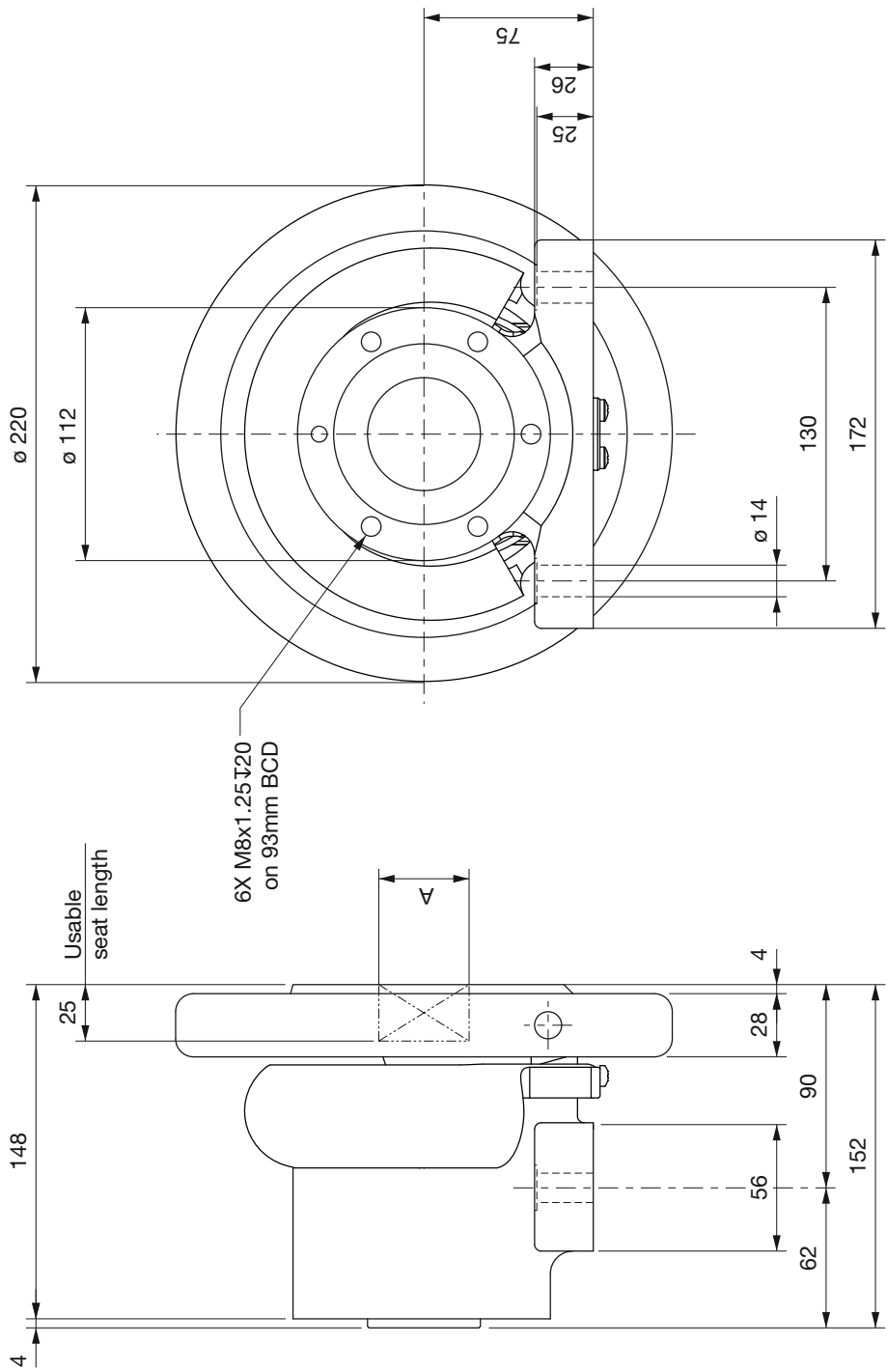
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G1800-SN- _ - _ -000-00-OS-00-OW

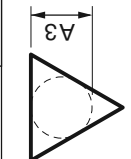
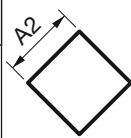
Roll weight: max. 18,000 N (4,047 lb)

Torque: max. 380 Nm (3,363 in-lb)



Standard Journal Types

	Standard	min.	max.	Standard	min.	max.
A2	30/35/40	30	40	A3	32	38



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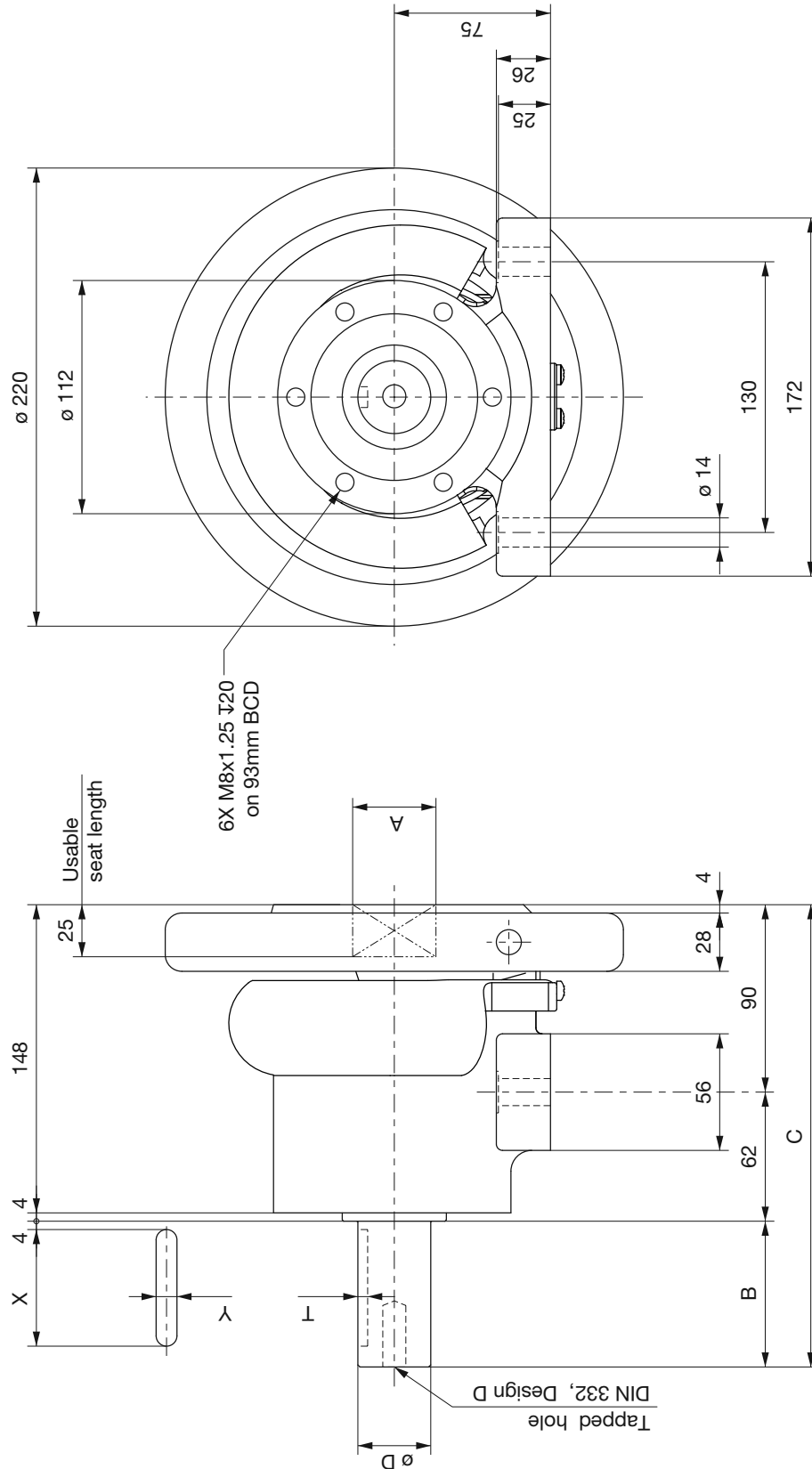
G031.0

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G1800-SN- _ - _ _ -000-00-OS-00-BR

Roll weight: max. 18,000 N (4,047 lb)

Torque: max. 380 Nm (3,363 in-lb)



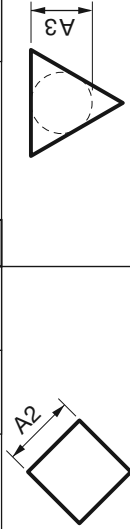
Available dimensions			
Standard	min.	max.	Description
D	35 k6	28	50
B	70	100	Shaft diameter
C	222	152	Shaft length
X	56	252	Total length
Y	10		Key length
T	5		Key width
			Key depth

G032.0

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Standard Journal Types

Standard	min.	max.	Standard	min.	max.
A2	30/35/40	30	A3	32	38



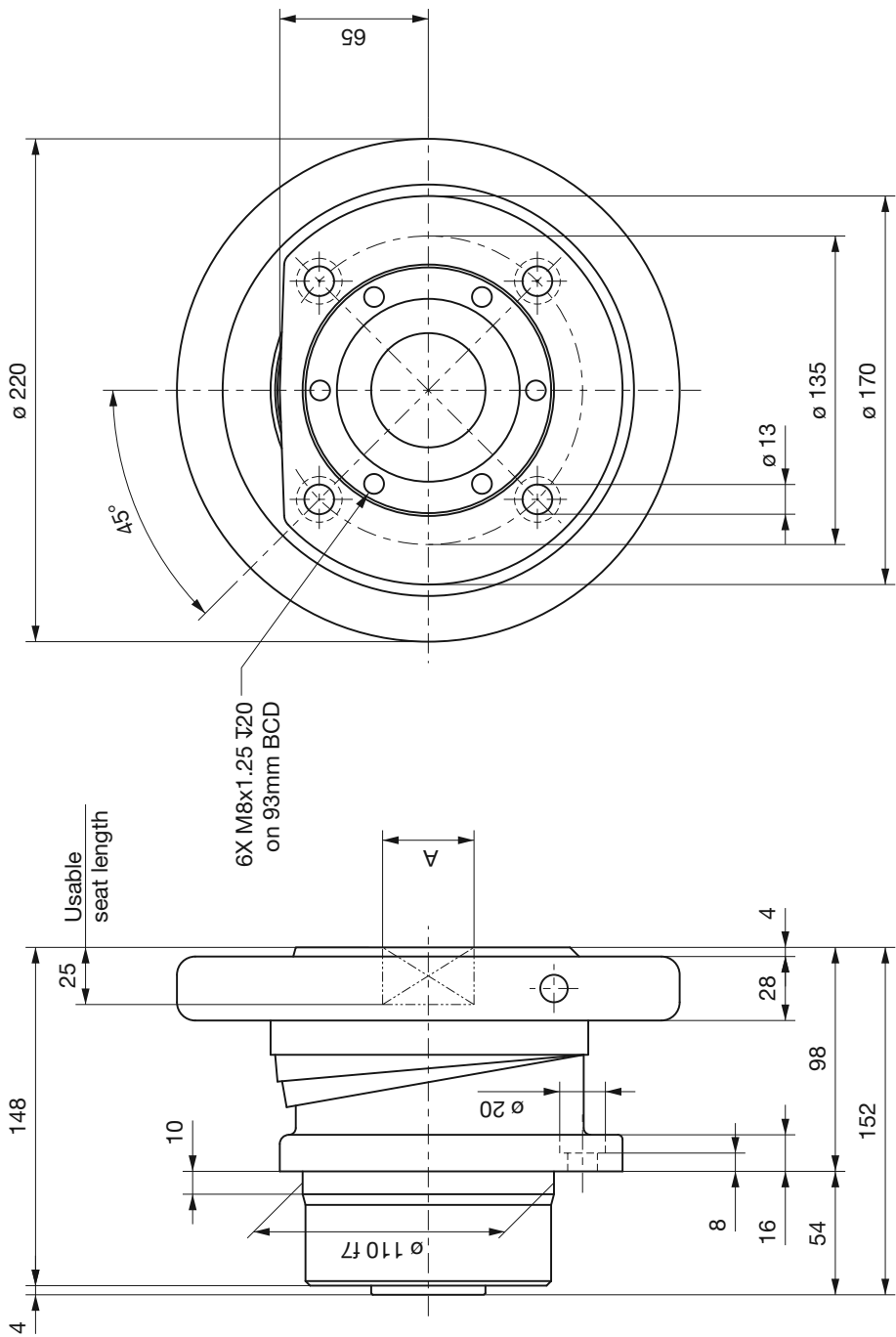
Caution: To prevent damage, journals must be manufactured according to Montalvo specifications!

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G1800-FN- _ - _ -000-00-OS-00-OW

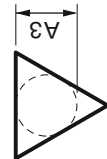
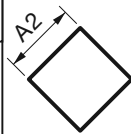
Roll weight: max. 18,000 N (4,047 lb)

Torque: max. 380 Nm (3,363 in-lb)



Standard Journal Types

	Standard	min.	max.	Standard	min.	max.
A2	30/35/40	30	40	A3	32	38



Caution: To prevent damage, journals must be manufactured according to Montalvo specifications!

G033.0

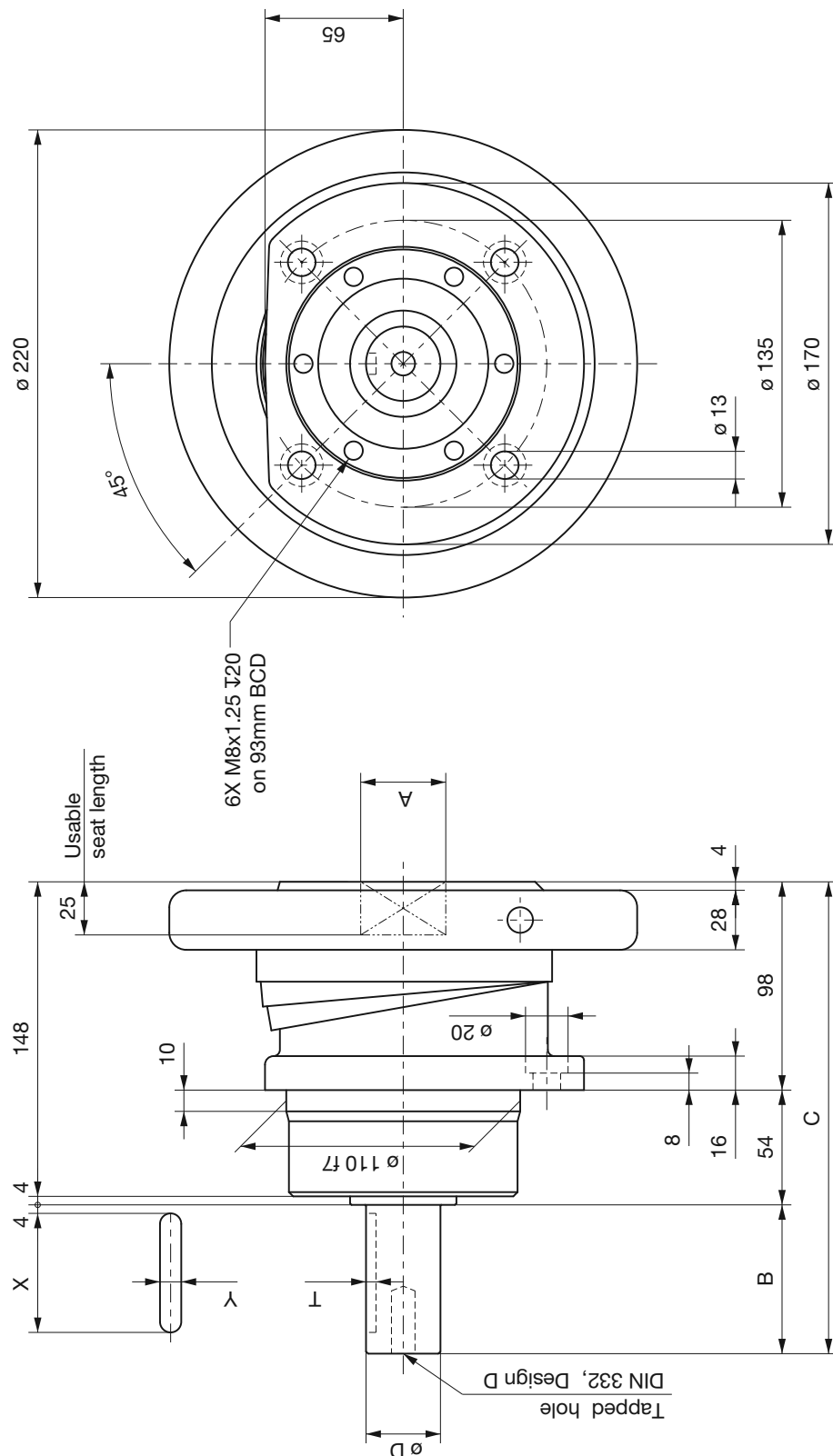
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G1800-FN-__-___-000-00-OS-00-BR

Roll weight: max. 18,000 N (4,047 lb)

Torque: max. 380 Nm (3,363 in-lb)



Available dimensions			
Standard	min.	max.	Description
D	35 k6	28	50
B	70	100	Shaft length
C	222	152	252
X	56	DIN 6885	
Y	10		
T	5		
Bl. 1			Key length
			Key width
			Key depth

G034.0

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Standard Journal Types

	Standard	min.	max.	Standard	min.	max.
A2	30/35/40	30	40	A3	32	38



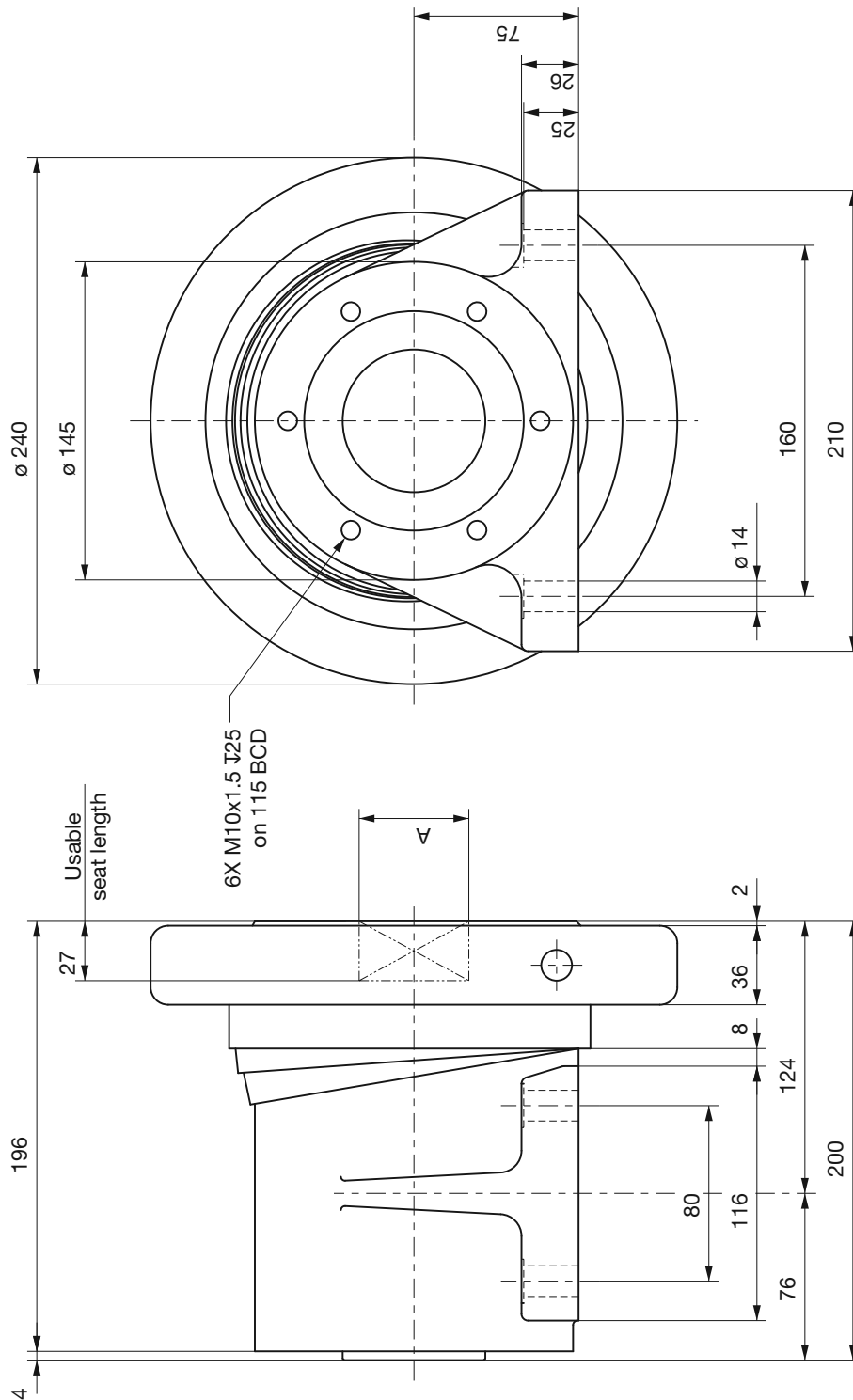
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G3000-SN-__-__-000-00-OS-00-OW

Roll weight: max. 30,000 N (6,744 lb)

Torque: max. 1,200 Nm (10,621 in-lb)



Standard Journal Types							
	Standard	min.	max.		Standard	min.	max.
A2	40/45/50	40	50	A3	46	40	47
							

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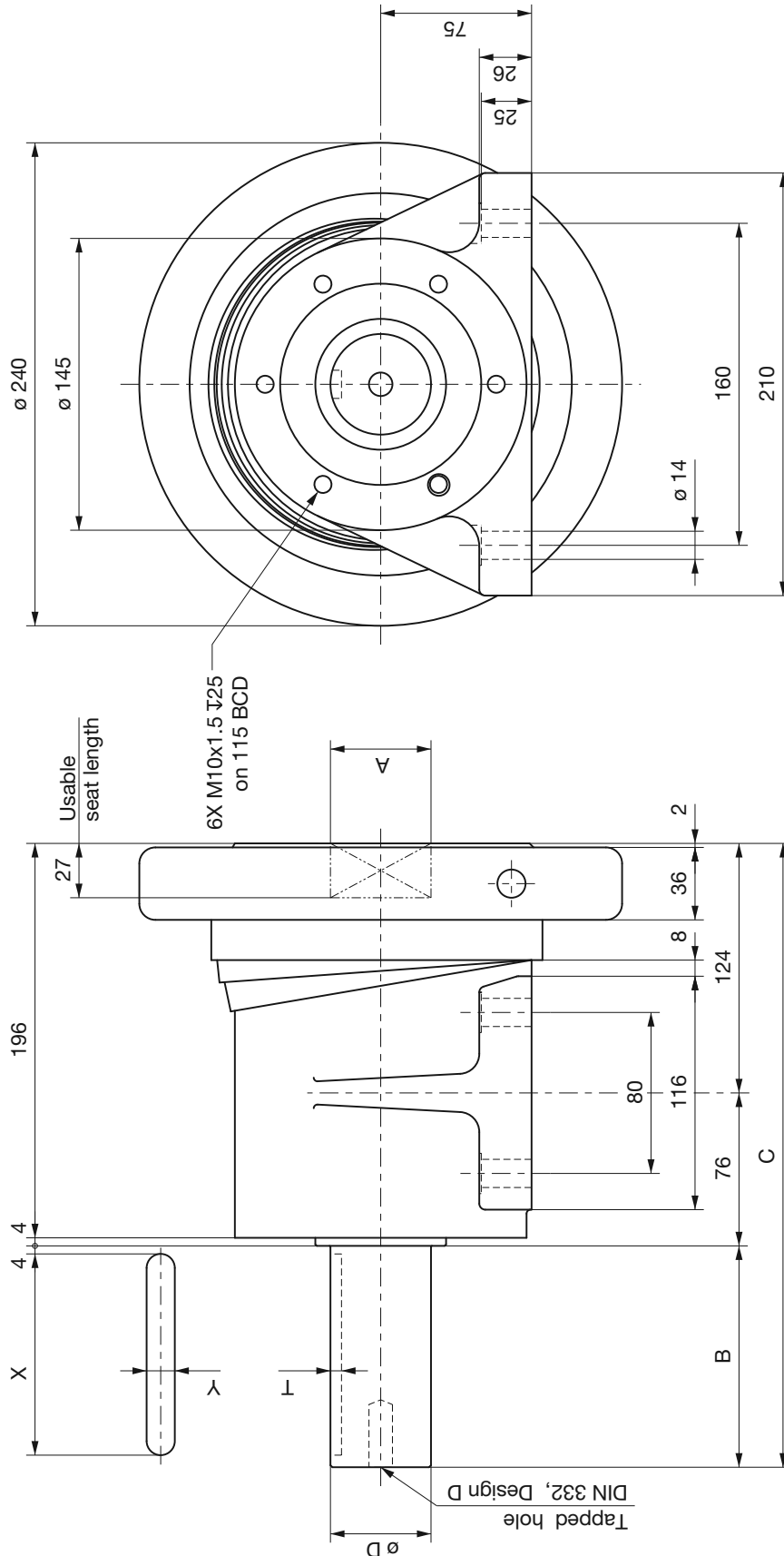
G041.0

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G3000-SN-__-__-000-00-OS-00-BR

Roll weight: max. 30,000 N (6,744 lb)

Torque: max. 1,200 Nm (10,621 in-lb)



Available dimensions			
Standard	min.	max.	Description
D 50 k6	35	65	Shaft diameter
B 110		140	Shaft length
C 310	200	340	Total length
X 100	DIN 6885 Bl. 1		Key length
Y 14			Key width
T 5.5			Key depth

G042.0

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Standard Journal Types

	Standard	min.	max.	Standard	min.	max.
A2	40/45/50	40	50	A3	40	47



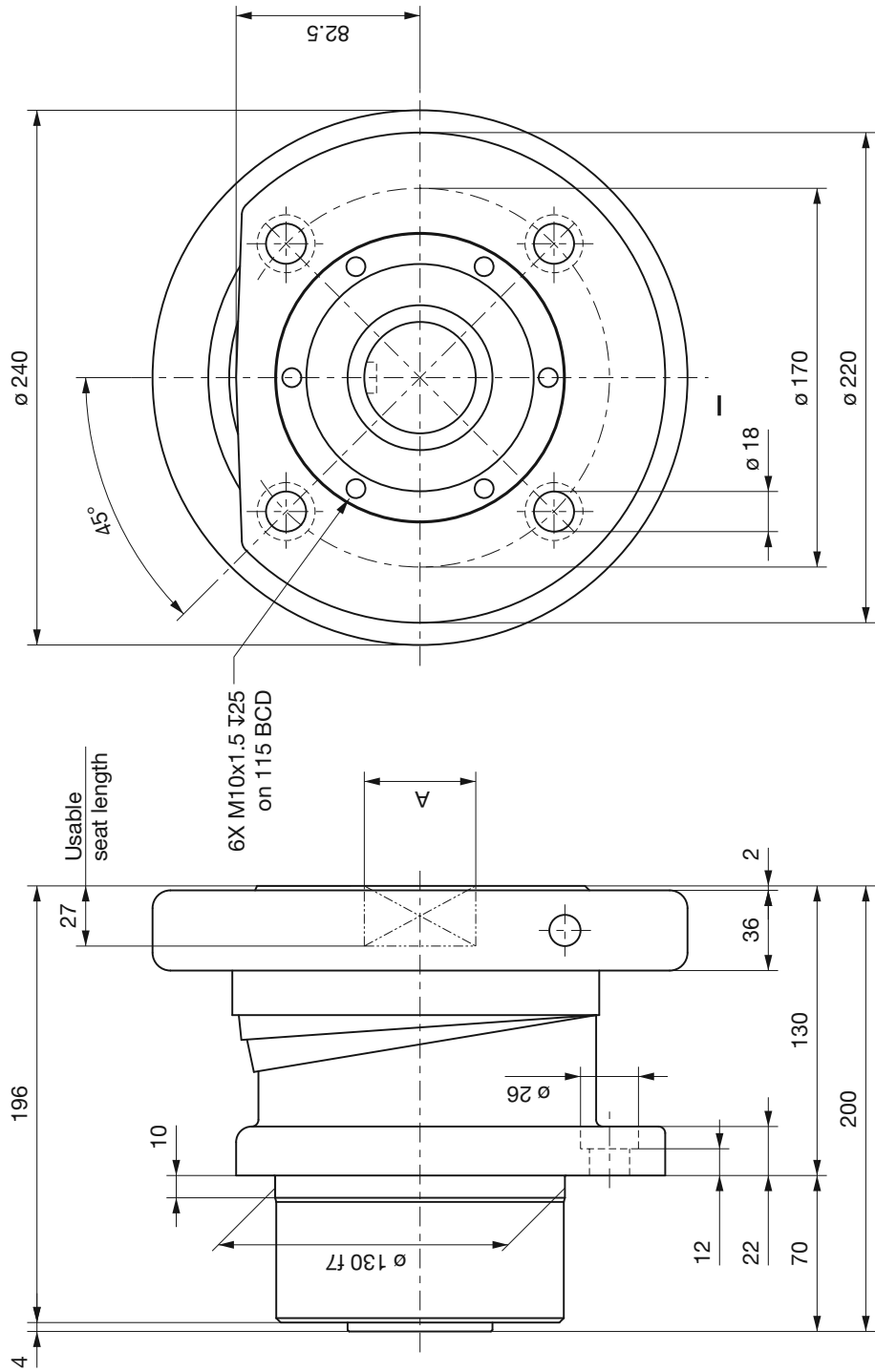
Caution: To prevent damage, journals must be manufactured according to Montalvo specifications!

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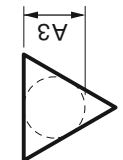
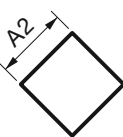
G3000-FN- _ - _ _ -000-00-OS-00-OW

Roll weight: max. 30,000 N (6,744 lb)

Torque: max. 1,200 Nm (10,621 in-lb)



Standard Journal Types							
	Standard	min.	max.		Standard	min.	max.
A2	40/45/50	40	50	A3	46	40	47

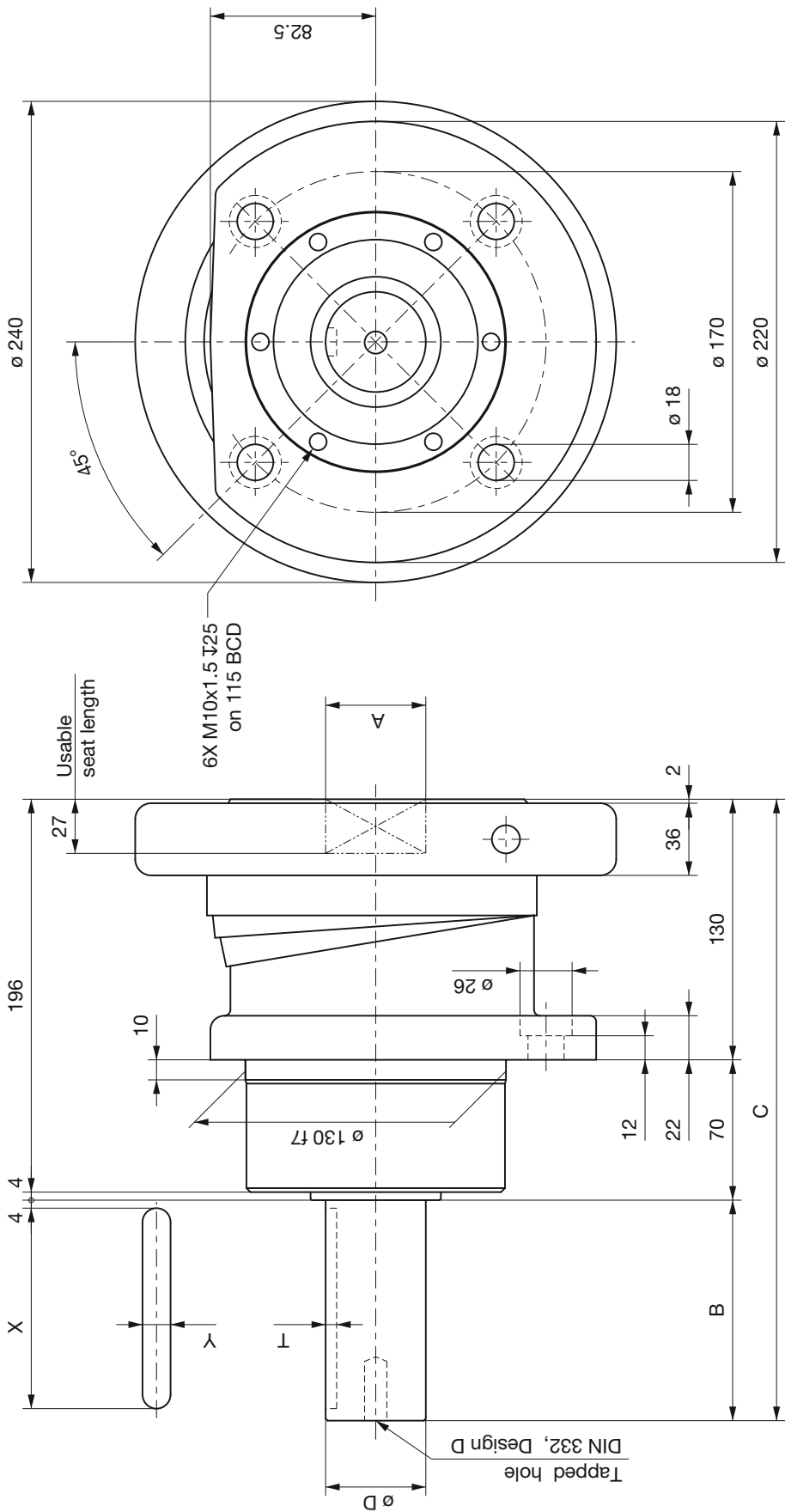


Caution: To prevent damage, journals must be manufactured according to Montalvo specifications!

G3000-FN-__-___-000-00-OS-00-BR

Roll weight: max. 30,000 N (6,744 lb)

Torque: max. 1,200 Nm (10,621 in-lb)



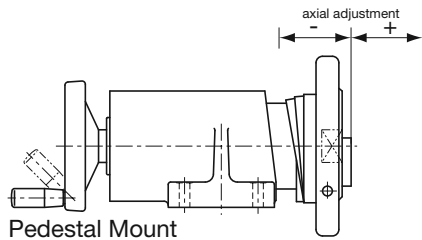
Standard Journal Types					
Standard	min.	max.	Standard	min.	max.
A2	40/45/50	40	A3	46	47

Caution: To prevent damage, journals must be manufactured according to Montalvo specifications!

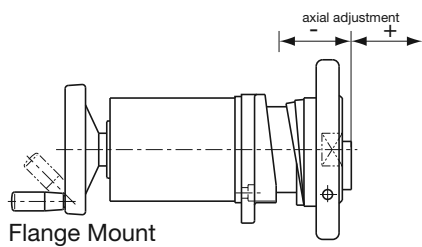
Available dimensions			Description
Standard	min.	max.	
D	50 k6	35	Shaft diameter
B	110	140	Shaft length
C	310	200	Total length
X	100	DIN 6885	Key length
Y	14	Bl. 1	Key width
T	5.5		Key depth

Overview

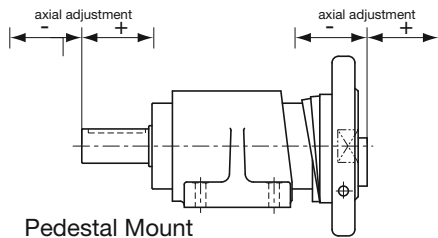
Guardian Sliding Safety Chucks are a cost effective solution for axial adjustment of rolls during operation. Manufactured with either a 50mm (+/- 25mm) or 100mm (+/- 50mm) adjustment range, they are available as pedestal (SS) or flange (FS) mount.



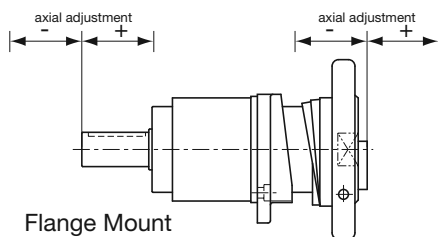
-HR- - -OW-
Without shaft end
Axial adjustment by handwheel



-AZ- - -OW- (not shown)
Without shaft end
Axial adjustment by freely definable drive pivot



-FW- - -BR-
Sliding shaft end
Additional thread in sliding sleeve
Both parts equipped with self centering spline
Prepared for mounting a brake



Order Code

Guardian Sliding Safety Chucks are a cost effective solution for axial adjustment of rolls during operation. Manufactured with either a 50mm (+/- 25mm) or 100mm (+/- 50mm) adjustment range, they are available as pedestal (SS) or flange (FS) mount.

G1800- **S-** **1** **2** **3** **4** **5** **6** **7** **8** **9**

1	Type Of Chuck & Mount	SS	sliding / pedestal mount
		FS	sliding / flange mount
2	Journal Seat Design	2	V-type square (A2)
		3	triangle (A3)
3	Journal Seat Size	—	measurement of A (journal seat) in millimeters (mm)
4	Axial Adjustment	050	50 mm (+/- 25 mm)
		100	100 mm (+/- 50mm)
5	Type of Sliding Chuck	HR	shaft drive
		AZ	shaft drive
		FW	sliding shaft end
6	Handwheel Safety Lock	OS	without handwheel safety lock
		RS	with safety lock - RIGHT side
		LS	with safety lock - LEFT side
7	Axial Carrier	MX	with axial carrier
		ST	with axial carrier pin
8	Type Of Chuck End	OW	without shaft end
		BR	with shaft end and bolt circle in housing or sliding sleeve (for brake mounting)
9	Shaft End / Brake		Diameter x Length (DxL) of shaft end (additional specs may be required)
		—	drawing number of special shaft
		—	Montalvo brake model number (or other brake specs)

Examples

The following examples are of typical order codes:

G1800-SS-2-40-100-HR-OS-MX-OW

G1800	maximum roll weight up to 1,800 kilograms (kg) (or 18,000 N)
SS	sliding chuck in pedestal mount
2	journal design is V-type square (A2)
40	journal size of 40 mm (measurement A from data sheet)
100	axial adjustment of 100 mm
HR	handwheel axial adjustment
OS	no handwheel safety lock
MX	with axial carrier
OW	without shaft end

G1800-SS-1-35-050-SW-LS-MX-BR-50k6x110

G1800	maximum roll weight up to 1,800 kilograms (kg) (or 18,000 N)
SS	sliding chuck in pedestal mount
2	journal design is V-type square (A2)
35	journal size of 35 mm (measurement A from data sheet)
050	axial adjustment of 50 mm
FW	with sliding shaft
RS	with handwheel safety lock - RIGHT side
MX	with axial carrier
BR	with shaft end and bolt circle in housing for brake attachment
50k6x110	diameter x length of shaft end (including key acc. DIN 6885, sh. 1 and thread on face acc. DIN 332, form D)

G1800-SS-3-30-100-FW-OS-MX-BR-0118

G1800	maximum roll weight up to 1,800 kilograms (kg) (or 18,000 N)
SS	sliding chuck in pedestal mount
3	journal design is triangle (A3)
30	journal size of 30 mm (measurement A from data sheet)
100	axial adjustment of 100 mm
FW	with sliding shaft
LS	with handwheel safety lock - LEFT side
MX	with axial carrier
BR	with shaft end and bolt circle in housing for brake attachment
0118	drawing number of special shaft for customer's brake

Axial Carrier

The axial carrier option is offered to facilitate the mechanical connection of two sliding chucks. Since only the type OW chuck is adjusted by means of a handwheel, electric or hydraulic drive, it is necessary to slave the opposite chuck through the winding shaft. The axial carrier offers the following advantages over conventional pin-type systems:

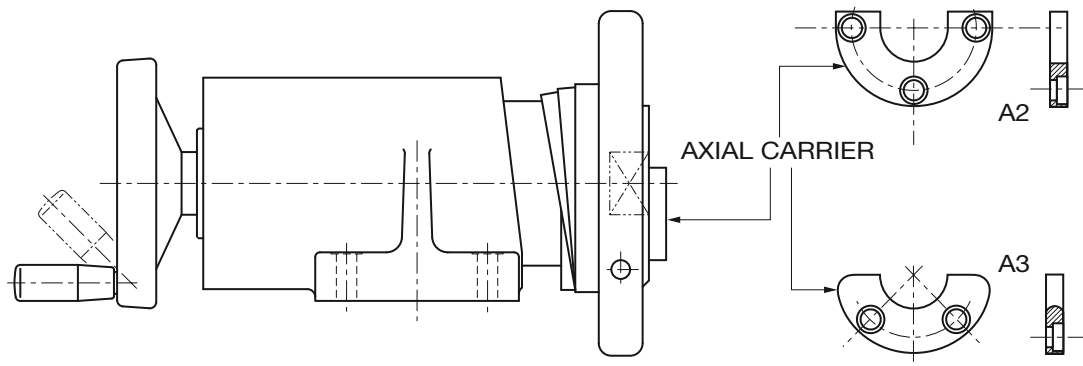
- Can be used in all designs of winding shaft journals
- Easier loading and unloading of the winding shaft

Note: Axial pin design is available for square normal journal (A1) as required.

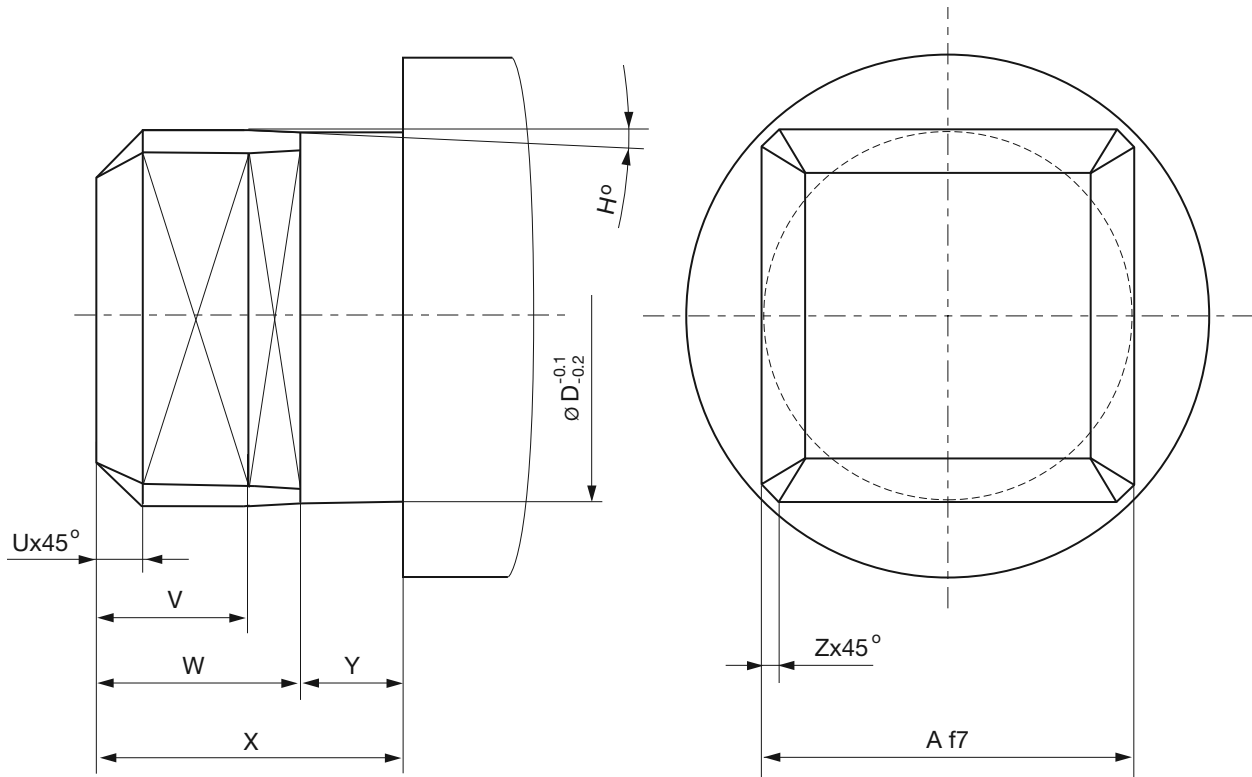
When unloading a roll, the lift should be parallel to the carrier to avoid mechanical interference.

Assembly of the axial carrier plate:

The axial carrier is mounted in front of the journal seat as shown below. The shaft journal requires a groove in which the axial carrier fits during loading.



Square Journal (A2)

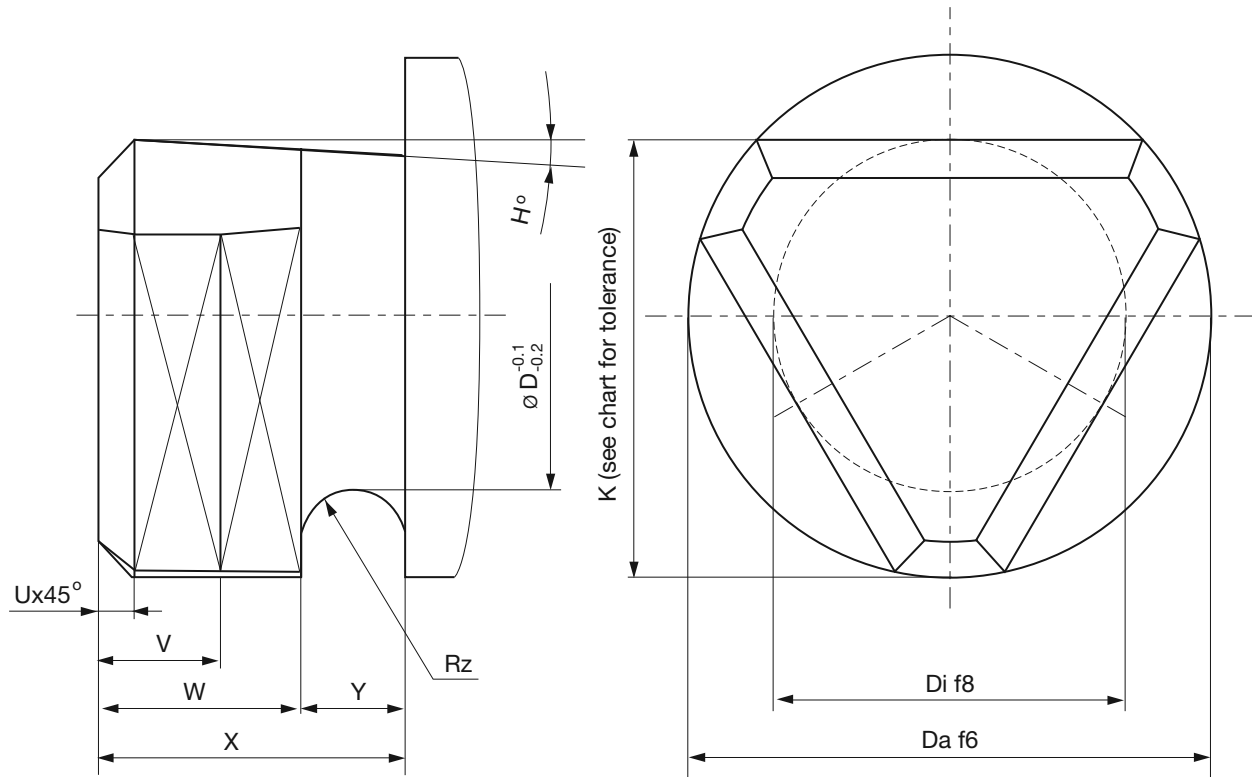


SIZE	A min.	A max.	W	X	Y	V	U	Z	H°
G1800	30	40	25	38	13	15	5	1.5	0.4

Legend:

A min.	minimum square dimension
A max.	maximum square dimension
W	journal length
X	minimum total length of the journal
Y	recess width
D	recess diameter D = A-1
V	length of the cylindrical portion of the journal
U	front face bevel
Z	side bevel
H	angle for journal undercut

Triangular Journal (A3)



SIZE	Di (f8)	Tolerance for K	W	X	Y	Rz	V	U	H°
G1800	32 to 33	-0.033/-0.044	24	36	12	6	15	5	0.4
G1800	over 33 to 38	-0.037/-0.047	24	36	12	6	15	5	0.4

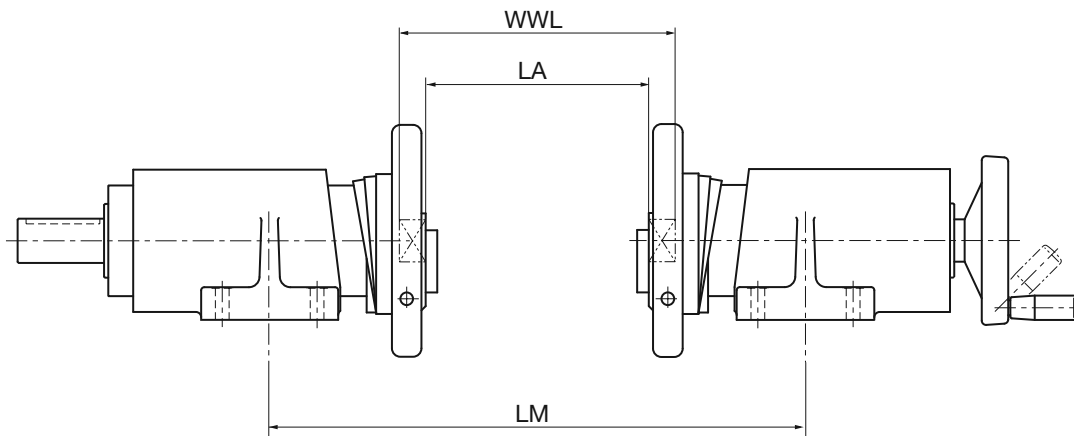
Legend:

Di	triangle - inner circle diameter (tolerance f8)
Da	triangle - circumference diameter (tolerance f6) Da = Di x 1.5
W	journal length
X	minimum total length of the journal
Y	recess width
D	recess diameter D = Di
Rz	front recess radius
V	length of the cylindrical portion of the journal
U	front face bevel
K	control dimension (note tolerances) K = Di/2 + Da/2
H	angle for journal undercut

Winding Shaft Lengths

Calculate winding shaft lengths for PEDESTAL MOUNT (SS) sliding chucks using the following formula:

$$\mathbf{WWL = LM - K}$$



SIZE	K (axial adj. 50mm)	K (axial adj. 100mm)
G1800	246	296

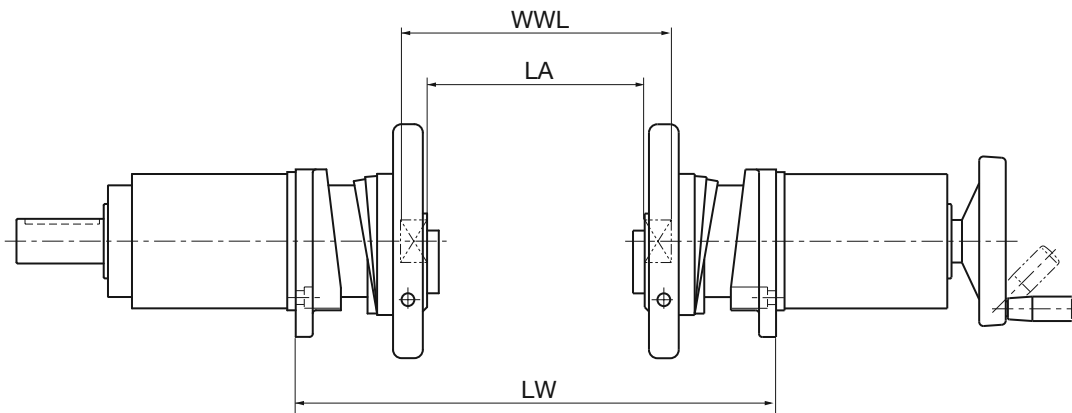
Legend:

WWL	winding shaft length
LA	distance between chucks
LM	mounting distance
K	specific constant

Winding Shaft Lengths

Calculate winding shaft lengths for FLANGE MOUNT (FS) sliding chucks using the following formula:

$$WWL = LM - K$$



SIZE	K (axial adj. 50mm)	K (axial adj. 100mm)
G1800	197	247

Legend:

WWL	winding shaft length
LA	distance between chucks
LM	mounting distance
K	specific constant

Specification Sheets

The application data sheet will help to determine which Guardian sliding safety chuck configuration best meets your requirements. The information must be complete and accurate and must accompany each order. The sheet, when properly filled out, will clearly define a specific chuck. Remember... the most important method of identification of our chucks is the part number!

The part number will give all relevant information, e.g.:

- Design (shaft end, chuck journal seat, housing, etc.)
- Summary of all component parts used (part number = part number list)
- Options
- Spare parts (sufficient info in part number to order spare parts)

The part number can be found on packing slips and purchase orders.

SLIDING CHUCKS

Specifications

G1800- S- - - - -

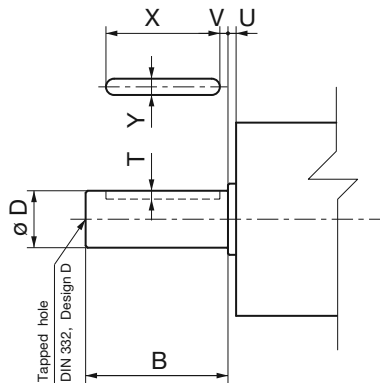
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Roll weight max.: 18,000 N (4,047 lb)

Torque max.: 380 Nm (3,363 in-lb)

1	Housing	SS	☐ pedestal mount		☐ standard as per data sheet
		FS	☐ flange mount		☐ special housing as per drawing
2	Journal Seat (see page 6)	2	☐ V-Type Square (A2) ◇		
		3	☐ Triangle (A3) ▽		☐ Special as per drawing
3	Size of Journal Seat	30	☐ (mm) standard with ◇	36	☐ (mm) - standard with ▽
		35	☐ (mm) standard with ◇		
		40	☐ (mm) standard with ◇		☐ (mm) min. / max. (data sheet)
4	Path	050	☐ axial adjustment +/- 25mm	100	☐ axial adjustment +/- 50mm
5	OW - Type	HR	☐ drive by hand wheel	AZ	☐ drive by driving shaft
6	BR - Type	FW	☐ sliding shaft end		
7	Safety Lock (see page 11)	OS	☐ without safety lock	LS	☐ with safety lock - LEFT side
		RS	☐ with safety lock - RIGHT side	BS	☐ with safety lock - both Left & RIGHT side
8	Axial Carrier (see page 12)	MX	☐ with axial carrier plate		
9	Shaft End (see page 7)	OW	☐ without shaft end	BR	☐ with shaft end & bolt circle in housing (for brake attachment)

For shaft end with SW/FW-BR and SW/BR or driving shaft with AZ-OW



☐	BR std. (mm)	☐	BR special	☐	AZ std. (mm)	☐	AZ special
B	82	B		B	28	B	
D	Ø42 k6	D		D	Ø20 h7	D	
X	70	X		X	20	X	
Y	12	Y		Y	6	Y	
T	5	T		T	3.5	T	
U	4	U		U	4	U	
V	4	V		V	4	V	
☐ BR or AZ as per attached drawing							

☐ Brake attachment: Type of brake _____ or define special shaft end (see above)

TECHNICAL DATA	FURTHER OPTIONS	Hardness	☐ 48/50 HRC = standard	☐ _____ HRC	☐ not hardened	see page 8	
		Seat	☐ cylindrical = standard	☐ conical (special order)			see page 12
		Balanced	☐ not balanced = standard	☐ balanced Q=_____ n=_____ rpm			see page 14
		Indication	☐ Handwheel Open/Closed	☐ 12h left	☐ 12h right	see page 13	
		Roll weight max.	_____ N (_____ lb)		Winding shaft diameter	_____ mm (_____ in.)	
		Roll diameter max.	_____ mm (_____ in.)		Winding shaft length	_____ mm (_____ in.)	
Roll width max.	_____ mm (_____ in.)		Deflection of winding shaft	_____ mm (_____ in.)			
Roll width min.	_____ mm (_____ in.)		Torque max.	_____ N (_____ lb)			
Winding speed max.	_____ m/min. (_____ ft./min.)		Substrate:				
Tension max.	_____ N (_____ lb)		Additional:				

Company:

Name:

Date:

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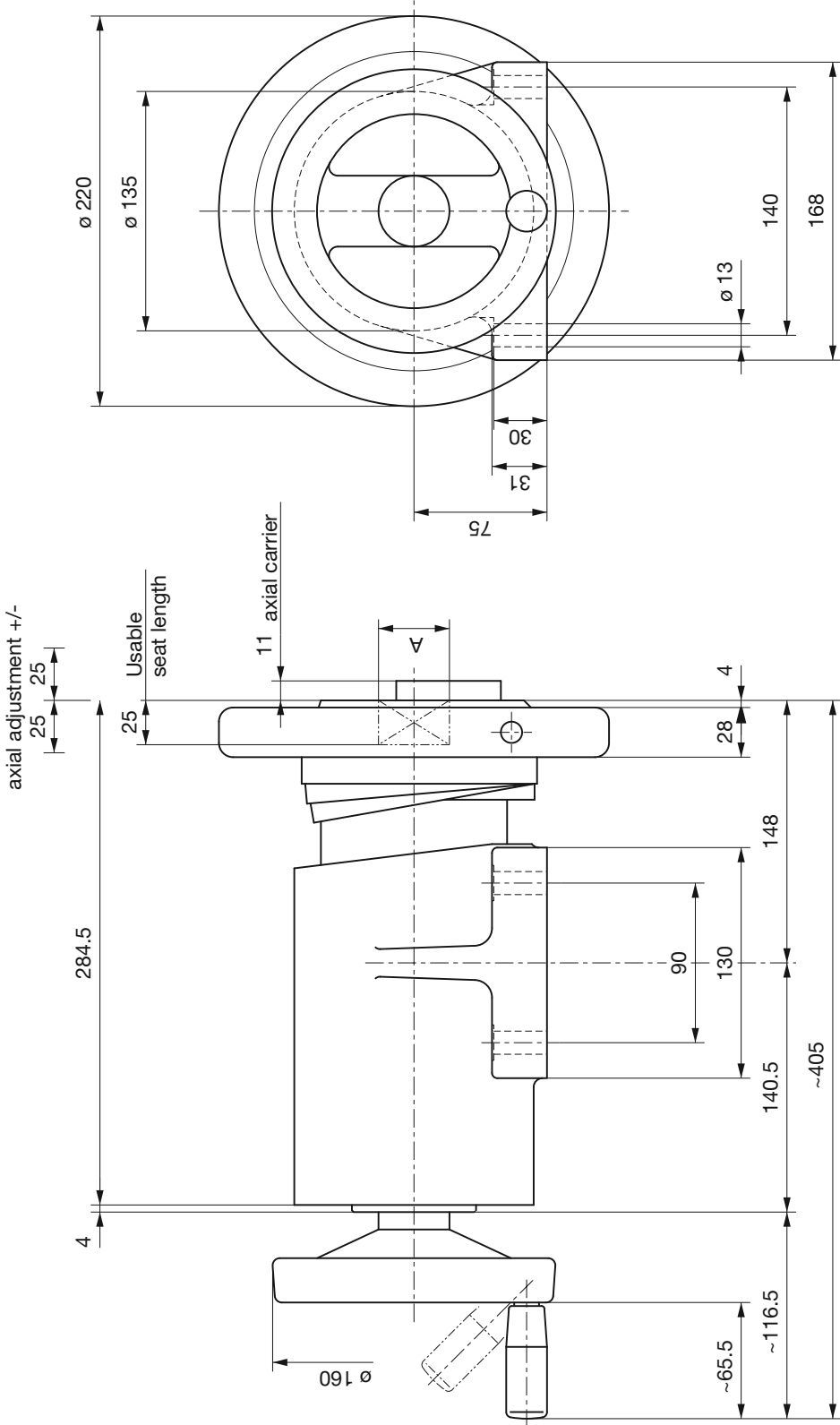
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G1800-SS-__-__-050-HR-OS-MX-OW

Roll weight: max. 18,000 N (4,047 lb)

Torque: max. 380 Nm (3,363 in-lb)



Standard Journal Types

	Standard	min.	max.	Standard	min.	max.
A2	30/35/40	30	40	A3	32	38



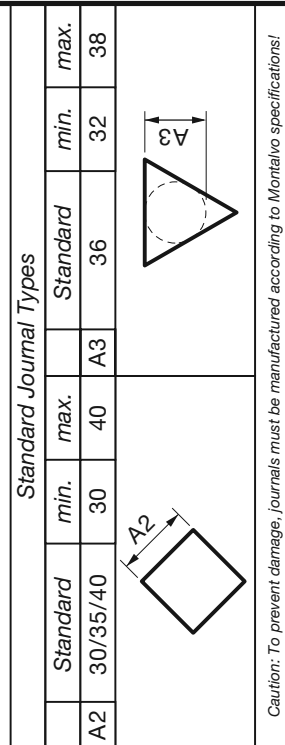
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Torque: max. 380 Nm (3,363 in-lb)



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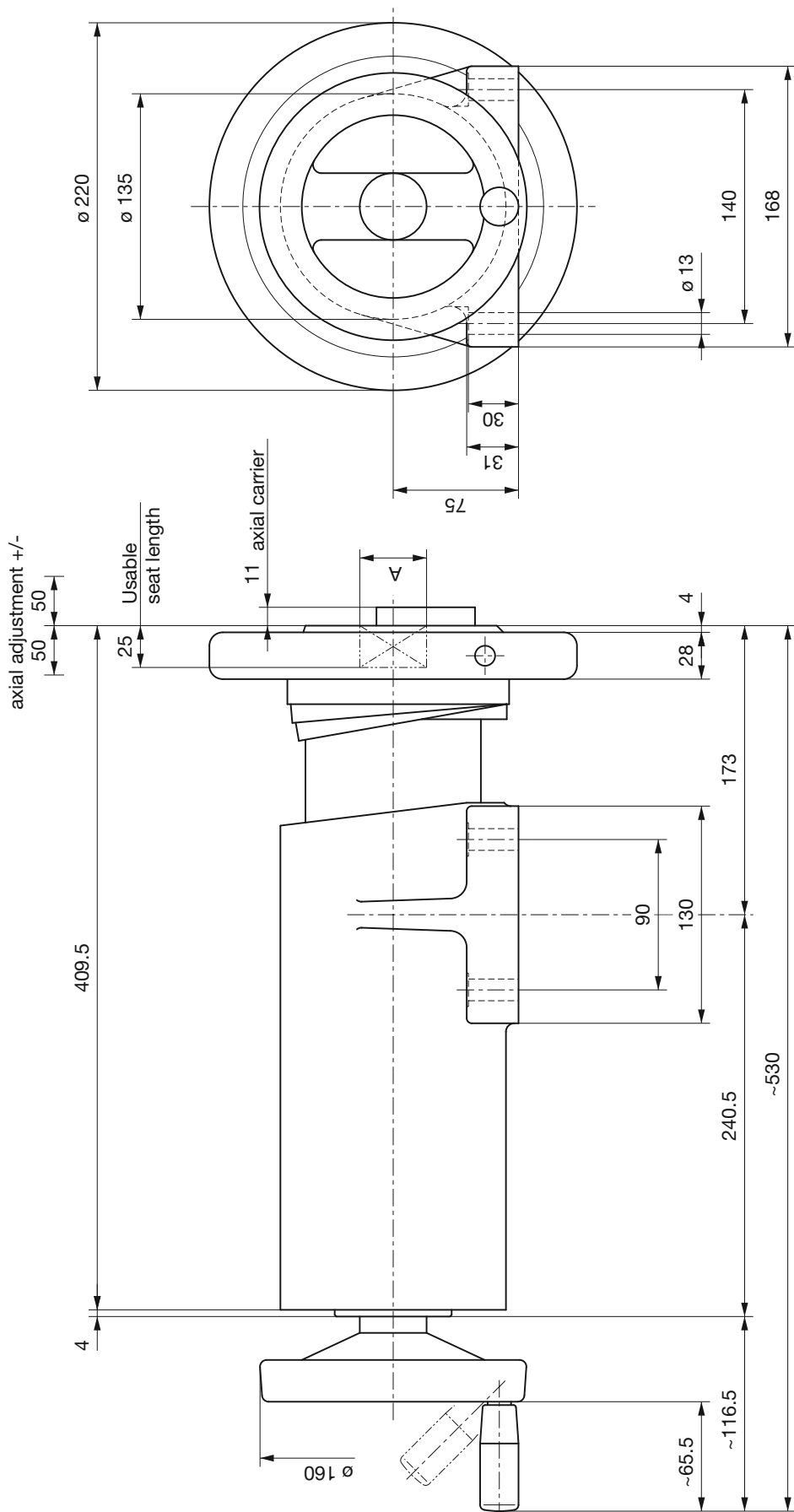
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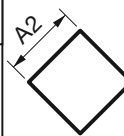
Roll weight: max. 18,000 N (4,047 lb)

Torque: max. 380 Nm (3,363 in-lb)



Standard Journal Types

		Standard	min.	max.		Standard	min.	max.
	A2	30/35/40	30	40	A3	36	32	38



Caution: To prevent damage, journals must be manufactured according to Montalvo specifications!

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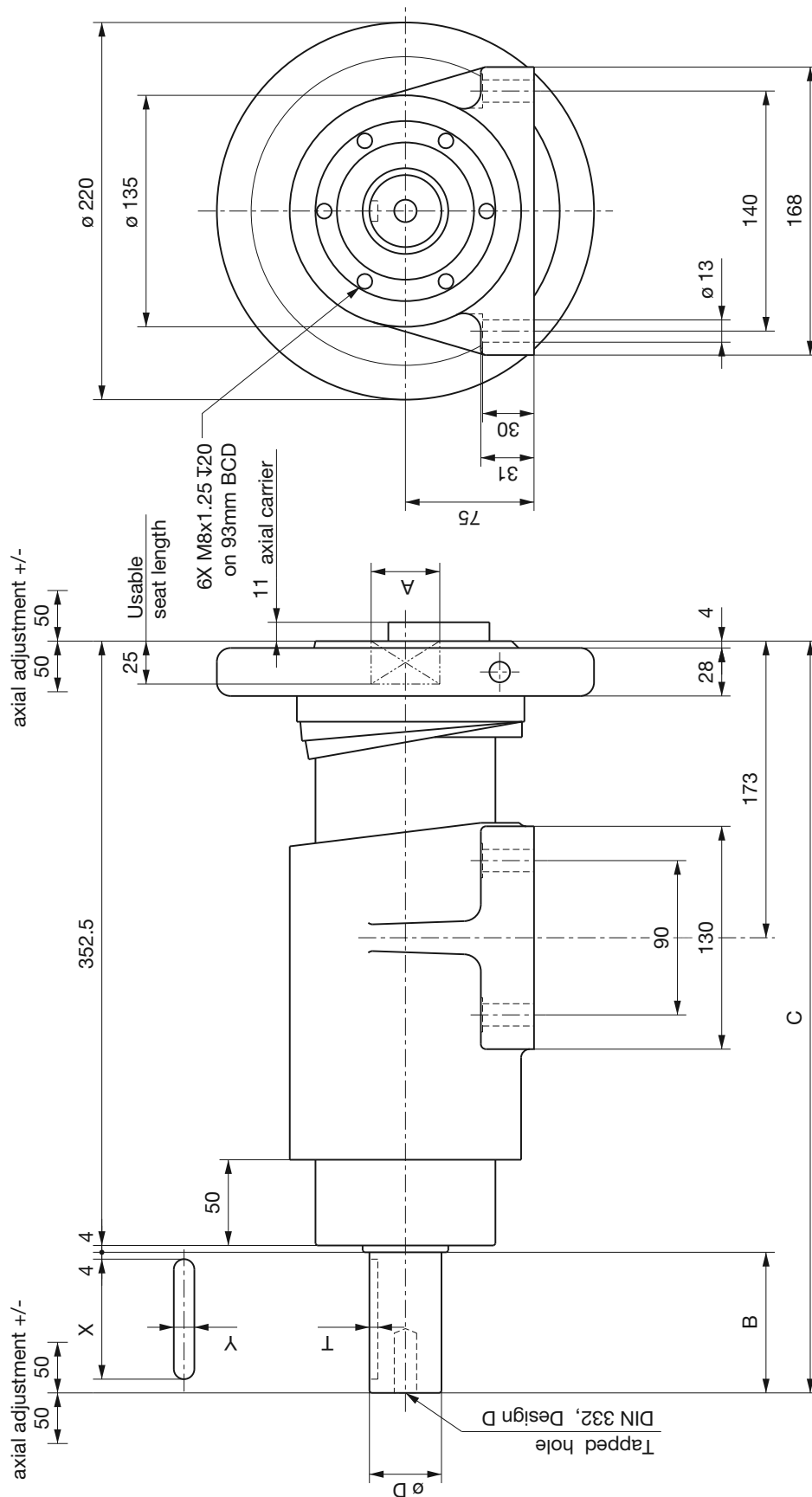
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G1800-SS- _ - _ _ -100-FW-OS-MX-BR

Roll weight: max. 18,000 N (4,047 lb)

Torque: max. 380 Nm (3,363 in-lb)



Available dimensions				
Standard	min.	max.	Description	
D 42 k6	28	50	Shaft diameter	
B 82		100	Shaft length	
C 438.5	356.5	456.5	Total length	
X 70	DIN 6885 Bl. 1		Key length	
Y 12			Key width	
T 5			Key depth	

Standard Journal Types				
	Standard	min.	max.	
A2	30/35/40	30	40	A3



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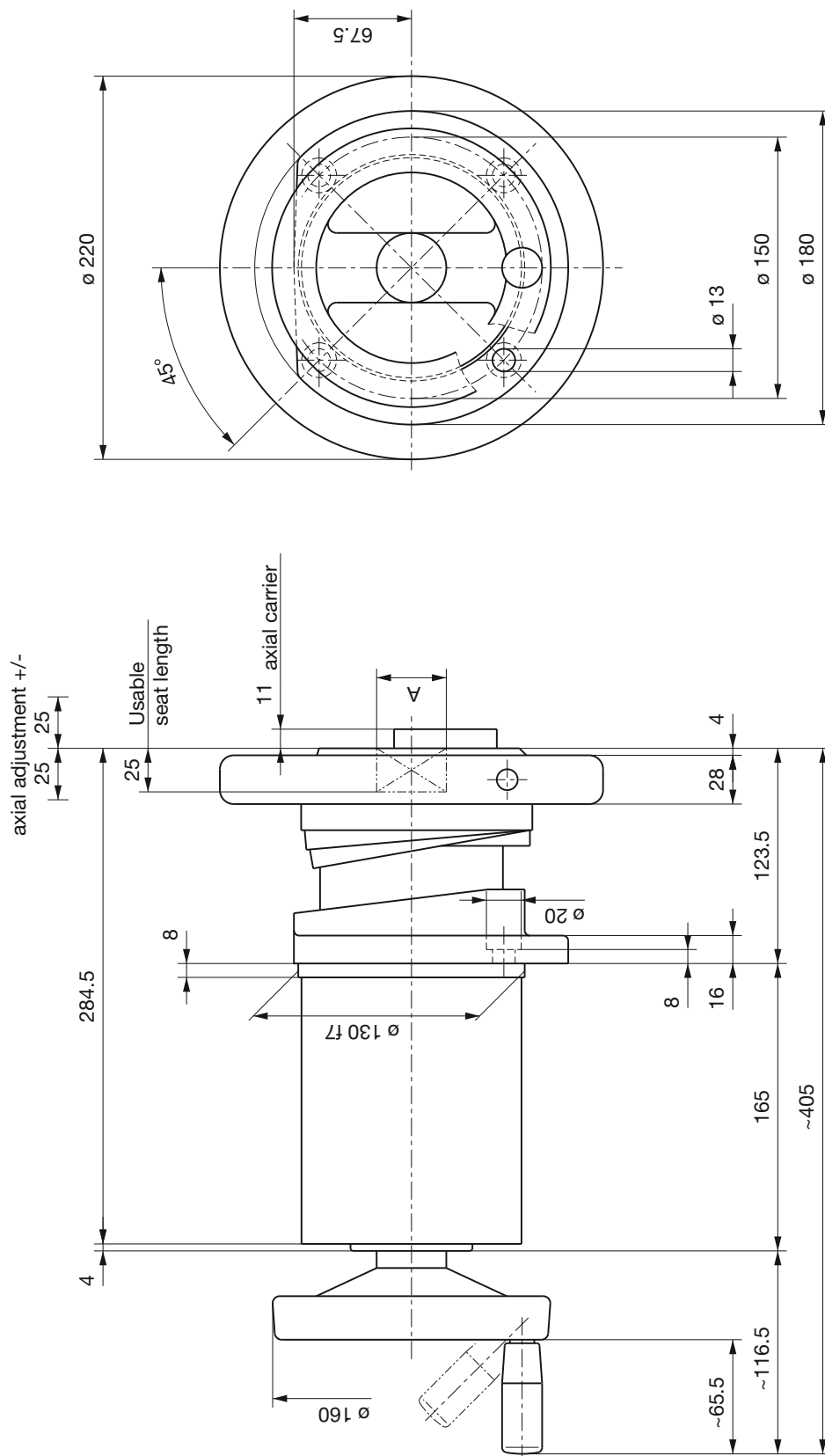
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G1800-FS- - -050-HR-OS-MX-OW

Roll weight: max. 18,000 N (4,047 lb)

Torque: max. 380 Nm (3,363 in-lb)



Standard Journal Types							
	Standard	min.	max.		Standard	min.	max.
A2	30/35/40	30	40	A3	36	32	38
							

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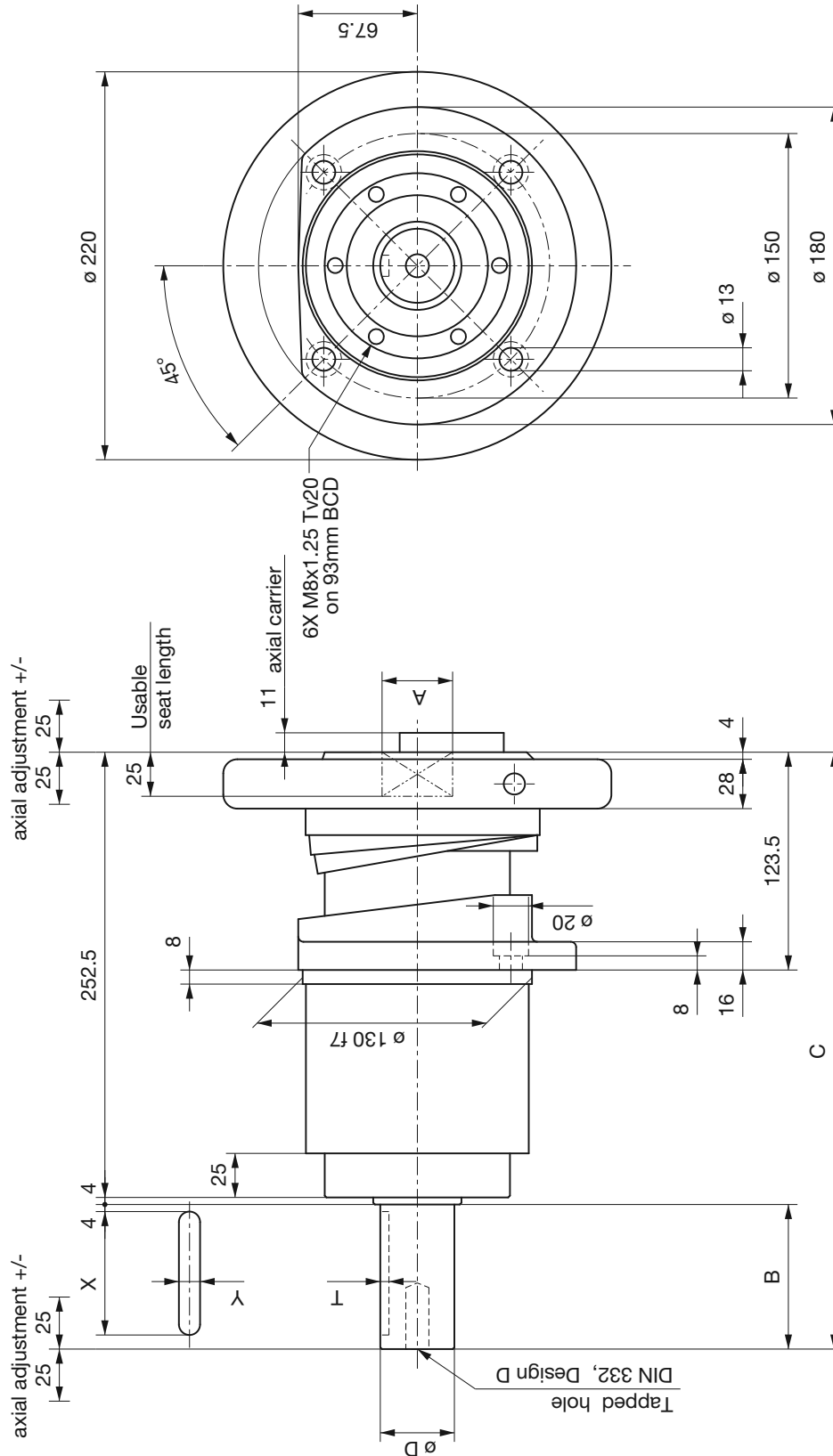
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G1800-FS- _ - _ _ -050-FW-OS-MX-BR

Roll weight: max. 18,000 N (4,047 lb)

Torque: max. 380 Nm (3,363 in-lb)



Available dimensions			
Standard	min.	max.	Description
D 42 k6	28	50	Shaft diameter
B 82		100	Shaft length
C 338.5	256.5	356.5	Total length
X 70	DIN 6885 Bl. 1		Key length
Y 12			Key width
T 5			Key depth

Standard Journal Types							
	Standard	min.	max.		Standard	min.	max.
A2	30/35/40	30	40	A3	36	32	38
							
Caution: To prevent damage, journals must be manufactured according to Montalvo specifications!							



Caution: To prevent damage, journals must be manufactured according to Montalvo specifications!

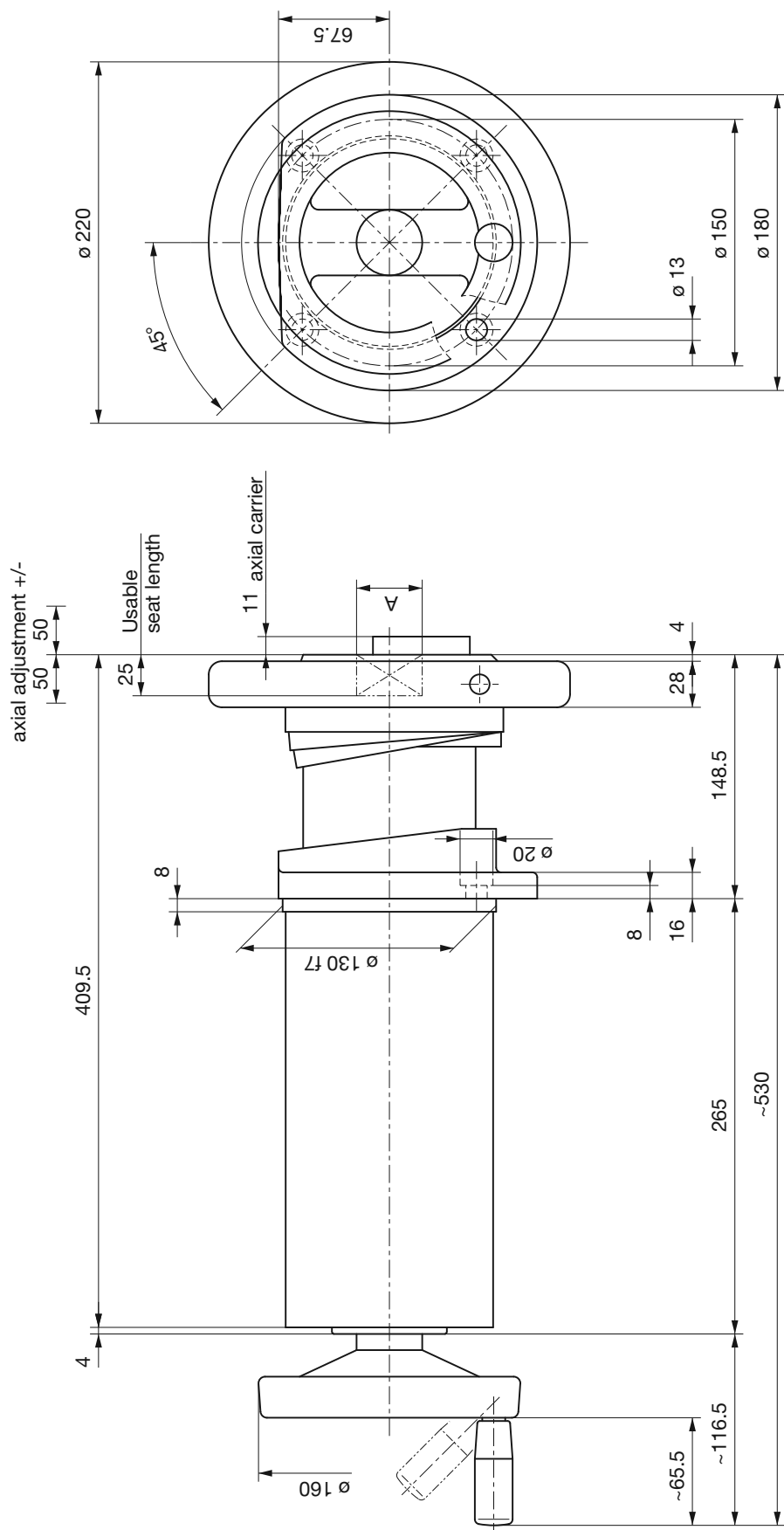
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G1800-FS- - -100-HR-OS-MX-OW

Roll weight: max. 18,000 N (4,047 lb)

Torque: max. 380 Nm (3,363 in-lb)



Standard Journal Types							
	Standard	min.	max.		Standard	min.	max.
A2	30°/35°/40°	30	40	A3	36	32	38
							

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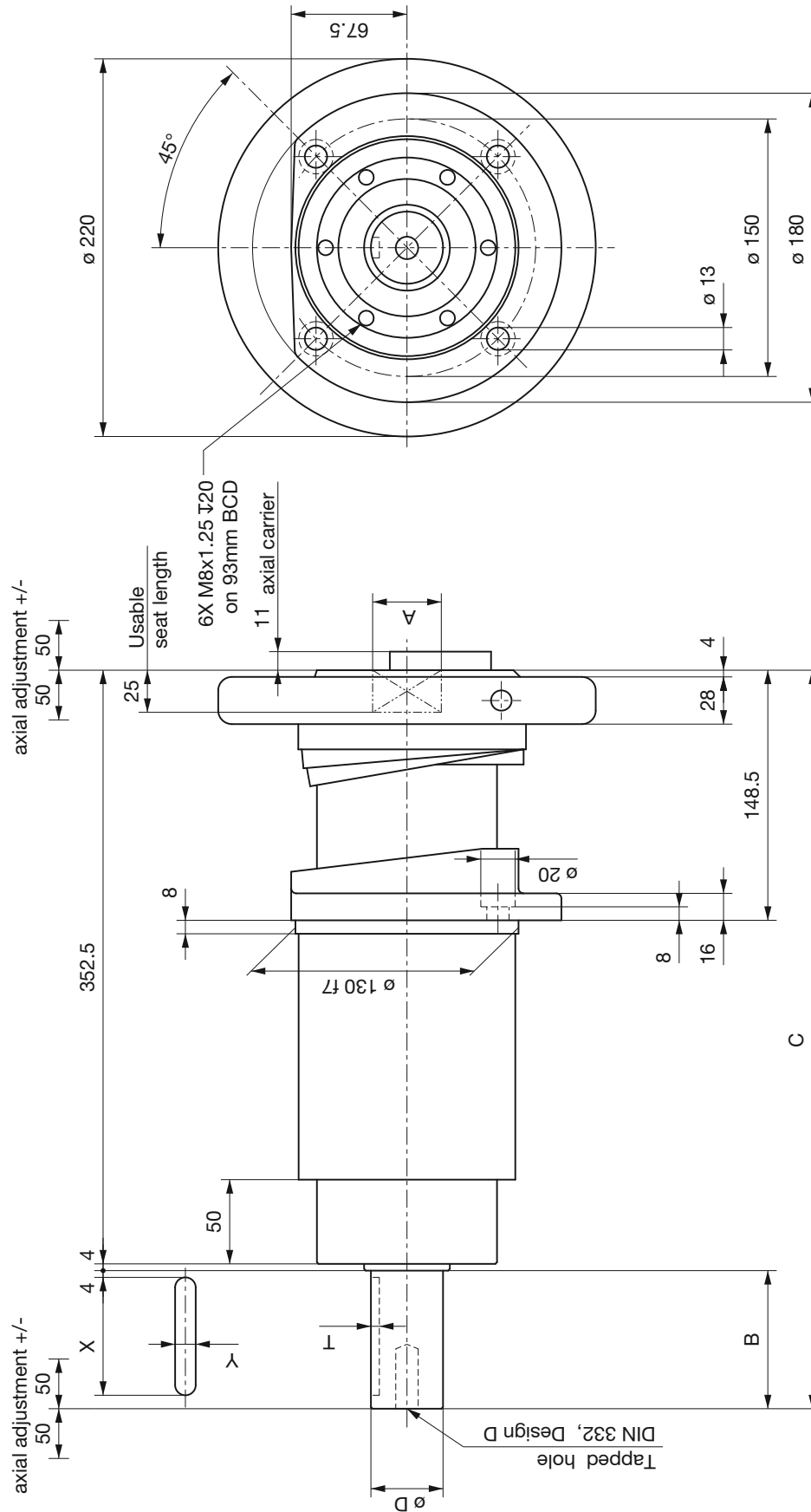
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G1800-FS- _ - _ -100-FW-OS-MX-BR

Roll weight: max. 18,000 N (4,047 lb)

Torque: max. 380 Nm (3,363 in-lb)



Available dimensions			
Standard	min.	max.	Description
D 42 k6	28	50	Shaft diameter
B 82		100	Shaft length
C 438.5	356.5	456.5	Total length
X 70	DIN 6885 Bl. 1		Key length
Y 12			Key width
T 5			Key depth

Standard Journal Types							
	Standard	min.	max.		Standard	min.	max.
A2	30/35/40	30	40		A3	36	38
							

Caution: To prevent damage, journals must be manufactured according to Montalvo specifications!



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Troubleshooting

Winding shaft cannot be easily loaded/unloaded or the journals jam when the shaft is being loaded

- Journal tolerance incorrect
- Chuck not properly aligned
- Not enough axial play

Handwheel cannot be opened or closed without using undue force

- Journal tolerance incorrect
- Journal/shaft too long
- Chuck not properly aligned
- Front face bevel missing or too small
- Excessive deflection of roll shaft

Winding shaft cannot be rotated correctly

- Journal tolerance incorrect
- Journal/shaft too long
- Chuck not properly aligned
- Winding shaft journal not in alignment

Handwheel opens slightly during operation, handwheel wobbles, iron filings from the housing can be seen, wear on the housing can be seen

- Ball catch defective or dirty
- Excessive winding shaft deflection
- Load or torque too high
- Incorrect weight or torque reduction with A2 journal seat
- Journal/shaft too long
- Too much axial play

Premature wear on the journal seat or on the winding shaft journal

- Journal not cut back
- Chuck not properly aligned
- Too much load on chuck
- Incorrect weight or torque reduction with A2 journal seat
- Excessive winding shaft deflection
- Wrong material used for journal
- Journal hardness not compatible with chuck journal seat

Noise

- Handwheel/journal tolerance too loose
- Chucks misaligned or damaged

Chuck has stiff movement

- Defective bearing
- Improper installation of brake or drive to chuck shaft

Routine

Guardian standard chucks require no extensive maintenance!

The ball bearings are lubricated for life. Because operating conditions vary, chuck life cannot be easily estimated.

The following items should be checked at regular intervals:

- ease of rotation
- ease of closing movement
- make sure that the ball-detent can be moved easily and that it latches correctly in the closed position
- check the condition of the journal seat and the shaft journals
- check the play between the shaft journal and the journal seat of the chuck and for true running of the handwheel
- check the function of the handwheel safety catch (if option is in use)
- visual check for unusual wear or damage

If the play between the handwheel and the shaft journal is outside of the limits listed below, replacement of both parts is recommended. This is especially important in the case of high loads and speeds.

Tolerance Range: Min. = 0.15mm. Max. = 0.2mm

Based on a combination of load and web speed, replacement of the handwheel and shaft journals is recommended when the gap between the parts exceeds 0.15 to 0.20 mm.

The following items should be cleaned and/or lubricated at regular intervals:

- all surfaces related to the ball-detent catch
- the running surface of the sliding sleeve (on sliding chucks)

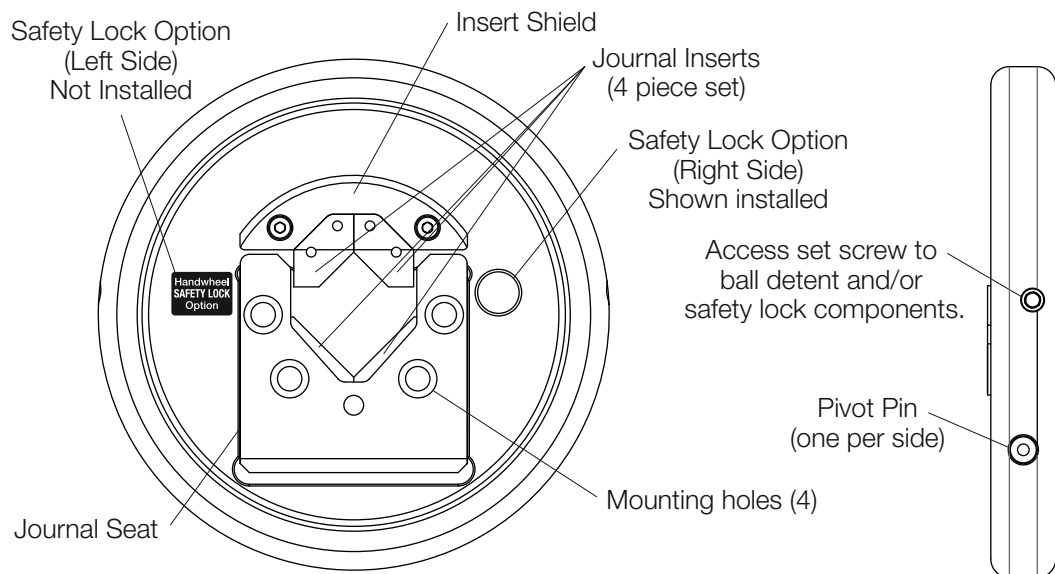
Handwheel Replacement

Handwheel and journal seat are supplied as an assembly and therefore they must not be disassembled!

The **two pivot pins** are secured in place by the manufacturer and *cannot be removed without destroying the handwheel assembly!*

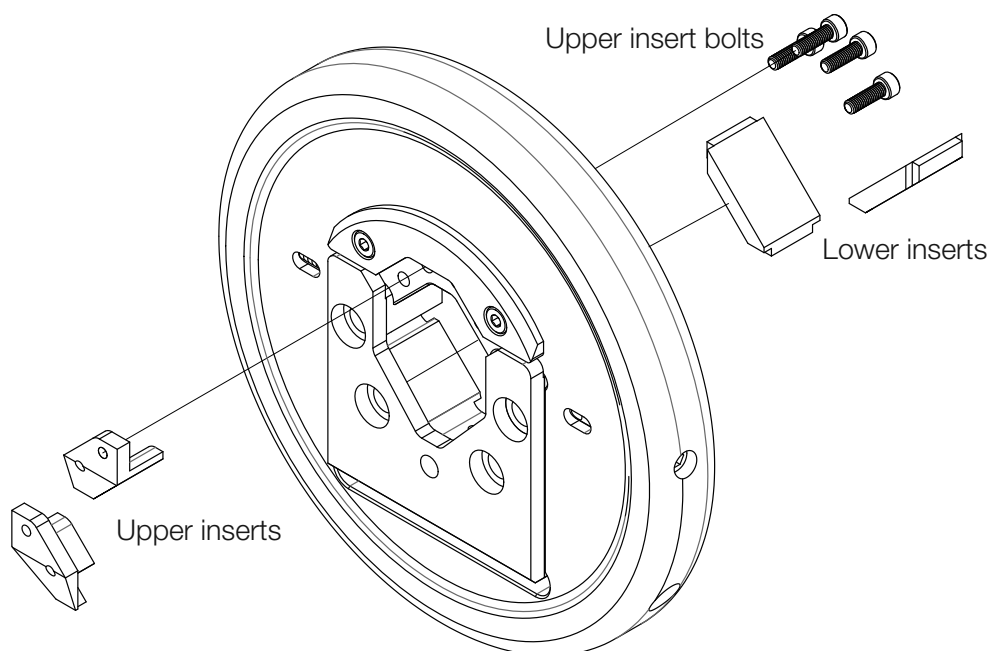
When removing the assembly, make sure that you do not press the journal seat out of the handwheel, as this would allow the ball catch to spring out causing it to eject all parts!

A replacement handwheel is supplied as a complete unit including journal inserts.



Journal Insert Replacement

- 1 Remove handwheel (see instructions).
- 2 Remove lower inserts by sliding out towards back.
- 3 Remove (4) bolts holding upper inserts.
- 4 Reinstall new set of inserts making sure to use thread locking compound on (4) upper insert bolts.
- 5 Check upper insert alignment with shaft.
- 6 Reinstall handwheel (see instructions).



Handwheel Safety Lock Replacement

The handwheel safety lock prevents unintentional opening of the handwheel. It must be replaced when it becomes inoperable!

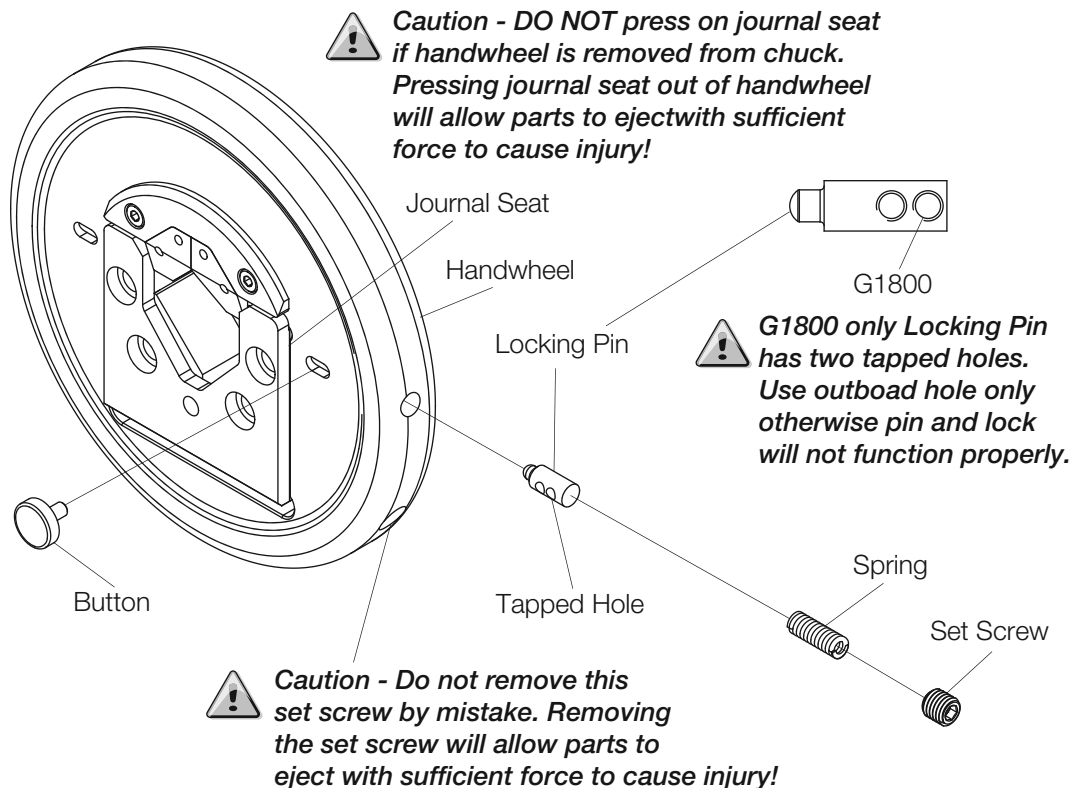
Follow the steps below to replace the Handwheel Safety Lock. Replacing the RIGHT side lock is shown below. Procedure for LEFT side replacement is identical. Make sure to observe all Lockout/Tagout procedures.

Removal:

- 1 - Remove set screw.
- 2 - Remove spring.
- 3 - Unscrew button.
- 4 - Remove locking pin.

Installation:

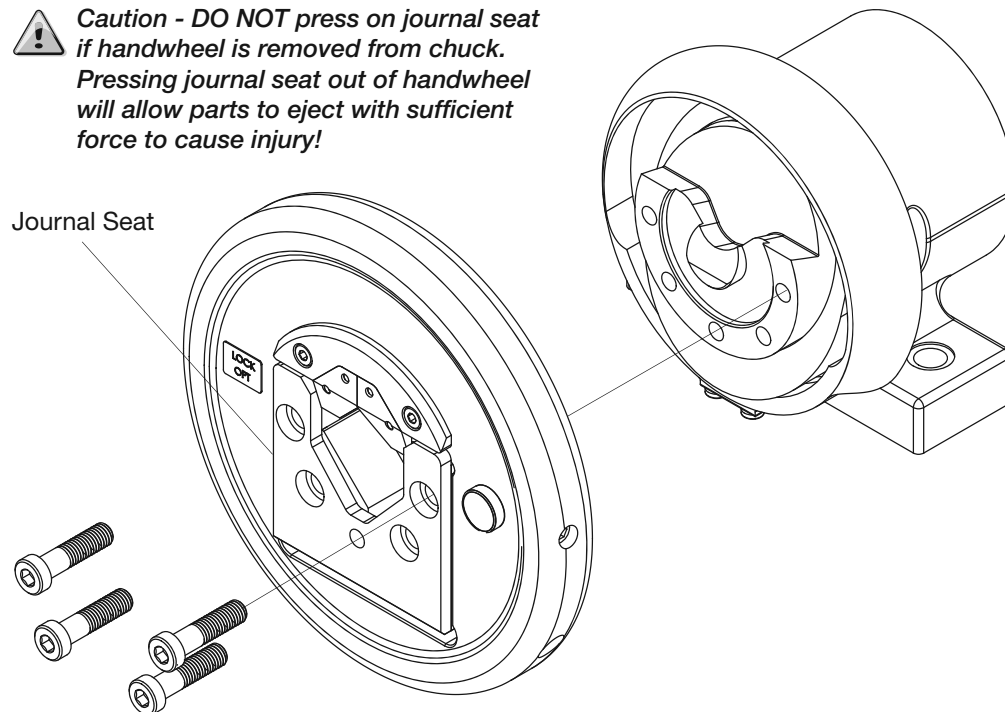
- 1 - Grease locking pin and insert into hole. Note position of tapped hole.
- 2 - Align tapped hole in pin with hole for button.
- 3 - Apply a drop of thread locking compound to threads of button.
- 4 - Screw button to pin. Do not overtighten - button should slide freely!
- 5 - Insert spring.
- 6 - Apply thread locking compound to set screw.
- 7 - Screw set screw into handwheel so that it is flush to edge of handwheel.
- 8 - Check free movement of button again. Adjust button as needed before thread locking compound sets up.



Removing / Installing Handwheels

- 1 Loosen the socket head cap screws on the journal seat. They are secured with a thread locking compound so it may be necessary to heat the heads of the screws to loosen them. Never heat the complete handwheel.
- 2 Remove the handwheel (whether defective or worn journal inserts).
- 4 Replace journal inserts if necessary (see instructions).
- 3 Clean the socket head cap screws and tapped holes to remove all traces of adhesive. Keep socket head cap screws and tapped holes free of grease.
- 4 Install a replacement or existing handwheel (with new journal inserts), without canting it, on the pilot stub of the shaft and make sure that the inclined surface on the back of the journal seat is parallel to the incline of the shaft.
- 5 Coat the socket head cap screws with a thread locking adhesive.
- 6 Tighten the socket head cap screws uniformly to specified torque making sure that the handwheel is not canted in the process.

⚠ Caution - DO NOT press on journal seat if handwheel is removed from chuck. Pressing journal seat out of handwheel will allow parts to eject with sufficient force to cause injury!

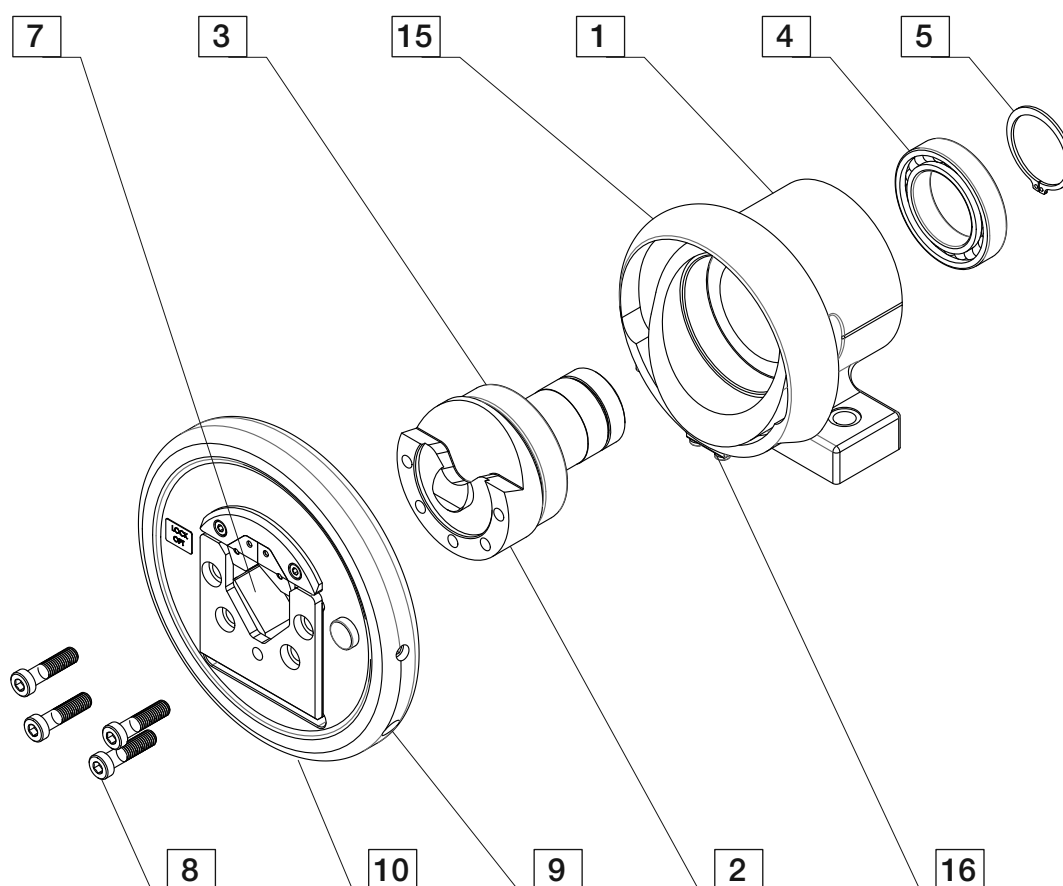


SIZE	Screw Type	Torque (Nm)
G1000	SHCS M8 x 30	35
G1800	SHCS M10 x 40	70
G3000	SHCS M12 x 45	120

Dismantling Normal Chucks

TYPE OW + BR

- 1** Remove the handwheel (10).
- 3** Remove the catch ring (5).
- 4** The shaft (2) can be removed through the front end by pressing or carefully tapping it. Bearing (3) will remain on the shaft. Bearing (4) will remain in the housing (1).
- 5** Perform necessary repair work.
- 6** Assembly is carried out in reverse sequence.



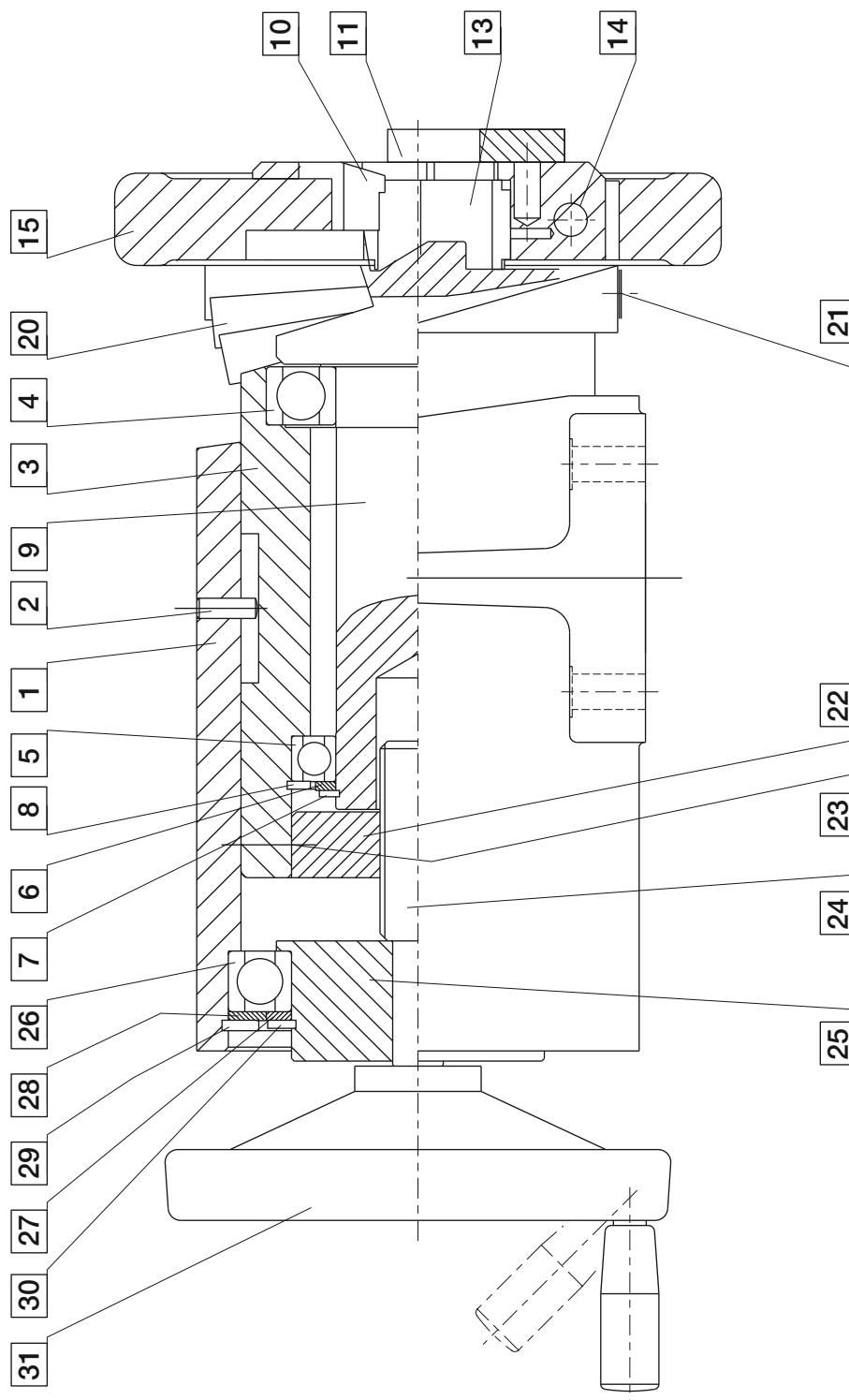
Dismantling Sliding Chucks

TYPE HR-OW

- 1** Remove the axial carrier (11).
- 2** Remove the handwheel.
- 3** Remove the turning safety (2).
- 4** By turning the handwheel (31), you can now push the sliding sleeve out of the housing.
- 5** Loosen the three threaded pins (23). They are secured with thread locking adhesive. Never heat the entire sliding sleeve!
- 6** Pull the thread ring (22) out from the rear.
- 7** Remove the retaining rings (7 & 8) and the support ring (6).
- 8** The shaft (9) can be removed through the front by pressing or carefully tapping it.
- 9** If you have to repair the adjustment mechanism, first remove the retaining ring (29) and the support ring (28).
- 10** Pull the complete adjustment mechanism out of the housing.
- 11** The threaded spindle (24), the spacer ring (25) and the handwheel (31) are bonded together and therefore form a single unit. They can be separate from each other only by heating them.
- 12** Assembly is performed in reverse sequence.
- 13** Make sure that thread locking adhesive is applied to the threaded pins (23) before assembling.

Keep all sliding parts, such as sliding sleeve and threaded spindle, clean. Carefully lubricate them with thickened grease containing molybdenum disulfide prior to assembly!

Dismantling Sliding Chucks



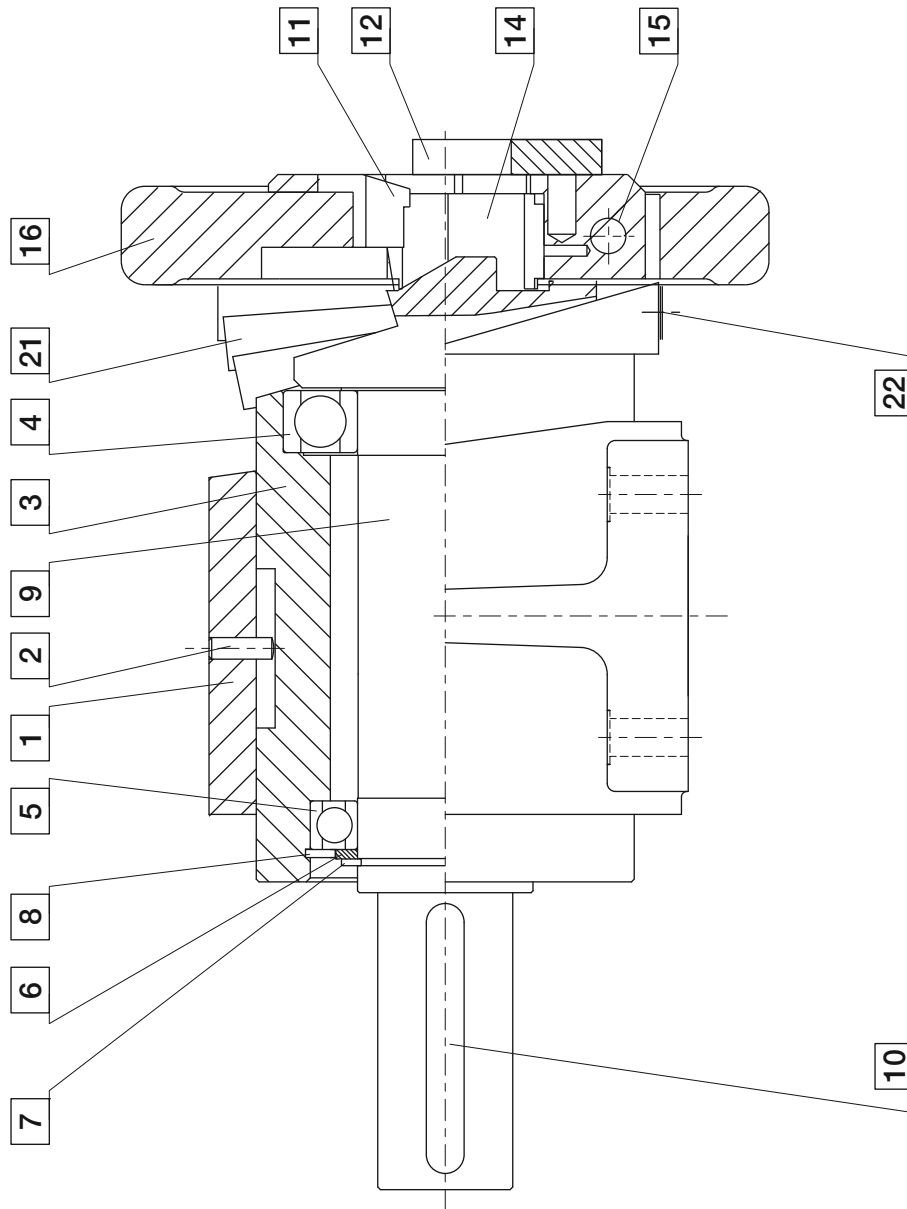
Dismantling Sliding Chucks

FW-BR

- 1** Remove the axial carrier (12).
- 2** Remove the handwheel.
- 3** Remove the turning safety (2).
- 4** You can then pull the sliding sleeve out of the housing.
- 5** Remove the retaining rings (7 & 8) and the support ring (pos. 6).
- 6** The shaft can now be removed through the front by pressing or carefully tapping it.
- 7** Assembly is performed in reverse sequence.

Keep the sliding sleeve clean and lubricate it carefully with thickened grease containing molybdenum disulfide before reassembly!

Dismantling Sliding Chucks



Ordering Spare Parts

Parts orders are more readily processed if you reference the part number of the safety chuck. All necessary information is clearly defined by it.

You will find the part number on the following:

- all delivery documents
- in chuck manual
- front face of safety chuck when finger guard is pushed back

On request you will receive a specific chuck manual containing the following:

- chuck designation
- part number
- specification sheet
- installation instructions
- information about winding shaft journals
- information about maintenance
- information about possible defects and their causes
- directions for replacing the handwheel
- directions for dismantling the safety chuck
- sectional view and specification of the component parts
- parts list
- information about ordering spare parts

Achieve More!

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