



## Characteristics CHD SERIES

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Worm gear - worm wheel set  
Bearings  
Screw spindle  
Nut  
Seals  
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## CHARACTERISTICS CHD SERIES

### HOUSING

For 2.5, 5, 10 and 25 sizes CHD SERIES housings are made of aluminium alloy; for the 50 and 100 sizes the housings are made of cast iron. The aluminium alloy housings receive an anti-oxidant treatment, while cast iron housings have a specific paint finish.

Furthermore, aluminium housings can be supplied on request with different treatments such as: anodizing, phosphate-chromate conversion coating, and GHA Golden Hard Anodizing (patent no. EP1207220) which inhibits bacterial proliferation by means of silver ions, an excellent treatment for food, chemical, pharmaceutical industry applications and many others.

### WORM GEAR - WORM WHEEL SET

The worm gear - worm wheel set is made respectively with the worm gear with involute profile in case-hardened and tempered steel and the worm wheel in G-CuSn12Ni2 bronze.

### BEARINGS

Only primary brand bearings are used, to guarantee top quality and constant performance in all conditions of use.

For all sizes, thrust ball bearings are mounted on the worm wheel, while radial bearings are used on the worm gear in sizes 2.5, 5, 10 and 25 and taper roller bearings in sizes 50 and 100.

### SCREW SPINDLE

Standard spindles are made of carbon steel with right hand, rolled thread. On request, we can supply spindles with multiple starts, with left hand screw, and in stainless steel.

### NUT

Rotating nuts are made of bronze and, on request, can be supplied in special polymers that allow use of the system without lubrication.

### SEALS

To guarantee hermetic sealing of the gearbox, radial seals are fitted both on the worm wheel and the work gear, with the exception of size 2.5, in which the seal on the worm gear is achieved with sealed bearings and O-rings. In flange spigots (where present) a static seal is provided by O-rings. Rings in VITON, SILICONE, and TEFLON are available for special situations. For these requirements, please contact our engineering-sales department.

### JACK LUBRICATION

Lubrication is a fundamental requirement for proper functioning and long life of the jack. This is why the CHD SERIES has been designed for separate lubrication of gearbox and screw spindle, allowing the use of different and specific lubricants for each.

Special lubrication solutions can be provided on request for high temperatures, low temperatures and for the food industry.

### JACK GEARBOX LUBRICATION

The gearbox is filled with high-quality synthetic liquid grease that guarantees lifetime lubrication under normal conditions. An oil lubricated version is available on request.

### SCREW SPINDLE LUBRICATION

The lubrication system on the travelling version allows lubrication of the spindle during operation, ensuring the distribution of grease over its entire length. For the rotary version, nuts can be supplied with a grease nipple on request.

#### **WARNING! SPINDLE LUBRICATION MUST BE PROVIDED BY THE END USER.**

The user must regularly inspect the spindle and lubricate in accordance with the duty cycle.

CHIARAVALLI GROUP SpA pre-lubricates spindles with specific grease. Grease type and quantity information can be found in the use and maintenance manual.



## CHOICE OF SIZE AND MODEL

The choice of model and dimensions must be made by the customer according to the application, as CHIARAVALLI GROUP SpA is unable to predict conditions of use, load types and magnitudes, the operating environment and all other conditions that affect the operation and lifetime of the jack.

We are happy to provide assistance on request, giving the necessary information for correct selection of the product.

## LOAD DEFINITION

### STATIC LOADS

By definition, all loads acting on the jack when all its components are at rest are static loads.

### DYNAMIC LOADS

By definition, all loads acting on the jack while its components are moving are dynamic loads.

### PULL LOADS

A pull or tension load is a load that acts on the spindle axis in the opposite direction to the jack housing. In this case the jack can work at the maximum permissible load.

### PUSH LOADS

A push or compression load is a load that acts on the spindle axis in the direction of the jack housing. In this particular case the spindle may be subject to so-called "buckling load" so there is a limitation to the maximum permissible load on the jack (see jack calculations section page 16)

## MAXIMUM PERMISSIBLE LOADS

The jacks are designed to withstand the nominal static load permitted in tension and compression. The permissible load depends on the type of jack mounting and the load direction.

### A) Jack resting on level surface, spindle facing upwards and push load.

The maximum static load may be limited with respect to the nominal load, depending on the stroke of the jack. The length of the spindle must be checked at buckling load.

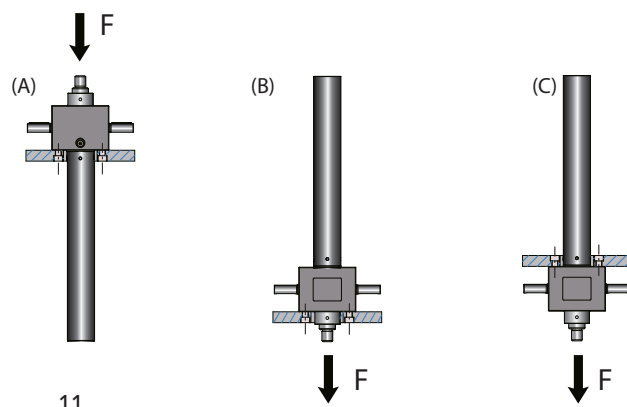
### B) Jack resting on a flat surface, spindle facing downwards and pull load.

The jacks can withstand the maximum nominal static load.

### C) Jack mounted under a flat surface, spindle facing downwards and pull load supported by the fixing screws.

The jacks can withstand the maximum nominal static load only if the fixing specifications are observed: screw length and tightening torque. (These values are given in the use and maintenance manual.)

**This type of fixing should be avoided unless absolutely necessary. It is preferable to fix the jacks on top of a flat surface.**





## JACK INPUT TORQUE

### MAXIMUM PERMISSIBLE INPUT TORQUE FOR INDIVIDUAL JACKS

For optimal life of the jack, the maximum input torque values shown in the "general technical data" table (pages 24/47) must not be exceeded.

### DRIVE TORQUE FOR A SINGLE JACK

The drive torques required for load lifting by a single jack are given in the "performance tables" (pages 24/47).

If the load to be lifted is not shown in the tables, refer to the "calculation formulas" chapter (page 14).

### MAXIMUM PERMISSIBLE TORQUE ON WORM GEARS (THROUGH-TORQUE)

In systems consisting of multiple jacks, driven by a single motor, the maximum permissible torque allowed on the worm gear of the individual jacks must be checked. The maximum permissible torque on the worm is significantly higher than the maximum torque allowed on the jack, as only the worm gear and not the worm wheel teeth is subjected to torsion.

The values are shown in the "general technical data" table (pages 24/47)

If the value is exceeded, select a larger size, change the mounting position or increase the speed, without prejudice to the prescriptions given in the previous paragraphs.

### DRIVE TORQUE FOR LIFTING SYSTEMS

To calculate the drive torque required for a multi-jack system, it is not sufficient to sum the individual torque values of the various jacks: the efficiency of the entire system must be taken into account. To perform the calculation, refer to the "calculation formulas" chapter (page 14).

## LIFTING SPEED

Lifting speeds are shown in the "performance tables" (pages 24/47).

To calculate the lifting speed with an rpm value other than that shown in the table, refer to the formula given in the "calculation formulas" chapter (page 14)

To increase the travel speed, screws with two starts can be used to double the linear speed of the jack. The use of these screws reduces the dynamic load, which is limited by the jack's maximum input torque.

These screws also make the jack reversible, which must be countered by installing a mechanical brake.

To reduce the travel speed, jack input speed must be decreased. This can be achieved using a motor with a greater number of poles, an inverter, or by interposing a gear reducer between the motor and the jack. In all cases, always pay attention to the maximum permissible input torque to the jack.

## STROKE

During the design stage, pay attention to the screw jack maximum stroke and comply with the safety overrun distances.

Contact with mechanical limit stops that may damage internal components of the jack is not permitted.

### STROKE MONITORING

Travelling versions can be equipped with control systems to prevent the jack from reaching stroke limit positions and thus come into contact with a mechanical limit stop.

Stroke control for the rotating version must be incorporated in the structure by the customer's engineering department.

For control system selection, refer to (pages 57/58)



## TEMPERATURE AND SERVICE FACTOR

In general, screw jacks are not suitable for continuous duty.

The performance data given in the tables are referred to a service factor of 20% in a 60 minute period at 20°C ambient temperature.

The working temperature range must not exceed -20° + 60°C (jack) and -20° + 80°C (spindle)

In limit conditions select a larger jack; consult our engineering-sales department for different service factors or temperatures.

## ROTATION AND MOVEMENT DIRECTION

### JACK ROTATION DIRECTIONS

Standard jacks are fitted with right-hand worm screws and right-hand spindles. The figure shows the rotation directions and the respective linear movements.

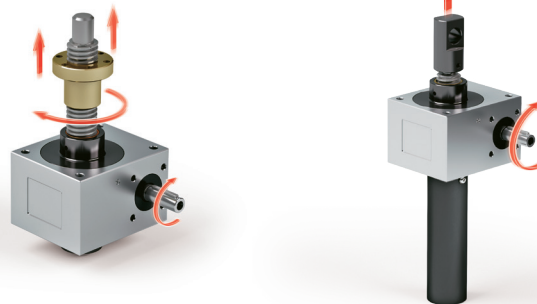
### MULTIPLE SYSTEM ROTATION DIRECTIONS

When creating a multi-jack system, pay attention to the system's rotation direction. We recommend consulting our standard assembly diagrams. (pages 18/20) In the case of 3-way bevel gearboxes, the direction of rotation can be changed simply by rotating the gearbox.

### IRREVERSIBILITY / REVERSIBILITY

In principle, jacks with single-start trapezoidal screws offer a high level of irreversibility. System inertia can vary depending on the application and can be eliminated by using a mechanical brake.

A brake is also recommended in applications characterised by shock loads or strong vibrations. Jacks with double-start trapezoidal spindles or ball screws are reversible and a mechanical brake is necessary.



## BACKLASH AND WEAR

### AXIAL BACKLASH

There is a certain amount of axial backlash between the screw spindle and the nut, as necessary for this type of coupling to function properly.

The axial backlash can only be detected in applications in which the load changes from compression to traction or vice versa.

### NUT WEAR

Nut wear must be checked at regular intervals.

The maximum permissible wear between screw and nut is 25% of the pitch.

Type of Nut	Pitch [mm]	Maximum Permissible Wear [mm]
Tr16x4 Tr18x4 Tr20x4	4	1
Tr30x6	6	1.5
Tr40x7	7	1.75
Tr55x9	9	2.25

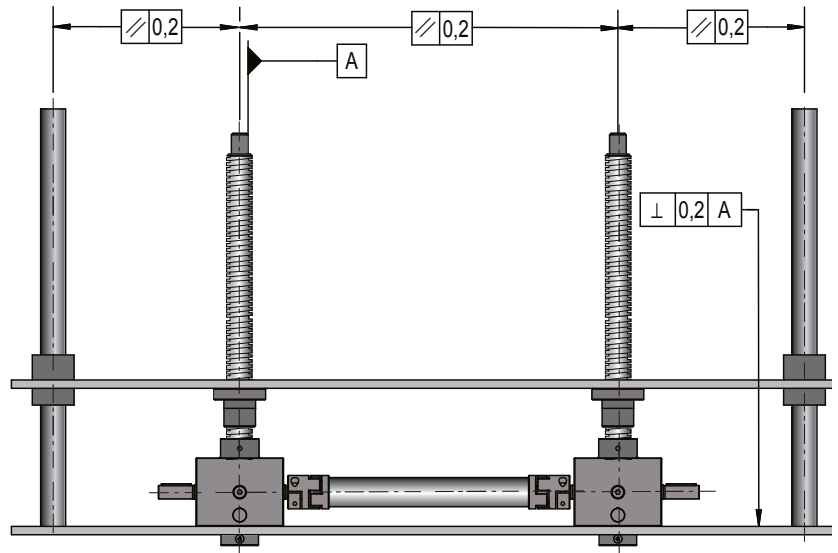


## INSTALLATION

Choose the type of jack fixing in the design stage, to ensure it is subjected to exclusively axial loads.

Pay the utmost attention to parallelism and orthogonality of the system. In multi-jack systems, parallelism must be guaranteed between one jack and the next. Parallelism errors can compromise correct operation of the system, causing overheating, premature wear or failure.

During commissioning of the jack or system, a series of checks must be carried out following the instructions in the use and maintenance manual.



## CALCULATION SECTION

Before starting sizing procedures, carefully evaluate all the loads acting on the jack or the multi-jack system.

### SIZING A SINGLE JACK

Calculation of torque needed to move the load:

$$M_t = \frac{F * p}{2000 * 3.14 * \eta_m * i} + M_l$$

Calculation of power needed to move the load:

$$P = \frac{M_t * n_1}{9550}$$

Travel speed calculation:

$$V = \frac{n_1 * p}{i * 60}$$



That reads as:

- F** = load [N]
- P** = load [kW]
- p** = leadscrew/ballscrew pitch [mm]
- η<sub>m</sub>** = overall screwjack efficiency (see efficiency table, pages 24/47)
- i** = reduction ratio
- M<sub>t</sub>** = motor torque on motorshaft [ Nm]
- n<sub>1</sub>** = motorspeed [rpm]
- V** = linear speed [mm/s]
- MI** = Idling torque [N/mm] (see table, pages 24/47)

## SIZING A MULTI-JACK SYSTEM

The torque required for a lifting system is the total of the individual jack torque values and is increased according to the friction losses of the transmission components such as couplings, connecting shafts, bevel gearboxes, etc.

Calculation of torque needed to move the load:

$$M_t = \left( \frac{n * F * p}{2000 * 3.14 * \eta_m * i * \eta_c} \right) + (MI * N)$$

Calculation of power needed to move the load:

$$P = \frac{M_t * n_1}{9550}$$

That reads as:

- P** = power [kW]
- n** = number of screwjacks
- F** = load for single screwjacks [N]
- η<sub>m</sub>** = overall screwjack efficiency
- η<sub>c</sub>** = overall system efficiency

$$\frac{1}{1 - [(1-N) * 0,05]}$$

- N** = number of screwjacks and bevelgears
- i** = screwjack reduction ratio
- MI** = Idling torque (see table, pages 24/47)

For the configurations shown on pages 18-20 the efficiency (η<sub>c</sub>) is shown next to each figure.

When using multiple jacks with a single motor, check the maximum permissible through-torque on the individual jacks (see pages 24/47).





## BUCKLING LOAD CHECK

When the jacks are subjected to a compression load - even occasionally, the screw must be verified at buckling load by referring to the Euler diagrams.

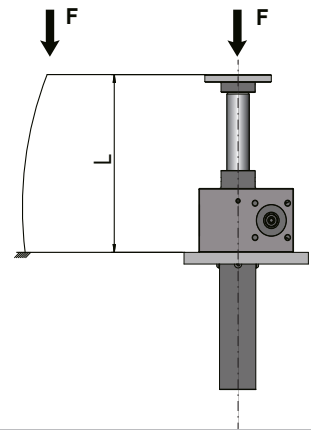
Find the reference diagram in accordance with the two constraints that support the jack. Once the type of fixing has been selected, find the maximum length of distance  $L$  on the graphs.

The graphs were plotted with a safety factor of 4.

### EULERO I

Constraint types:

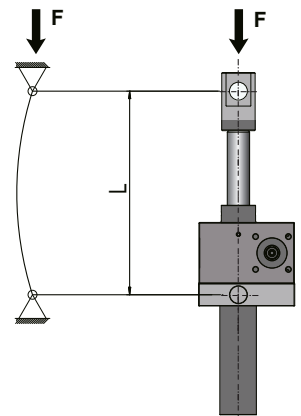
- **TRAVELLING VERSION**  
Fixed housing  
Unrestrained screw terminal.
- **ROTATING VERSION**  
Fixed housing  
Unrestrained nut.



### EULERO II

Constraint types:

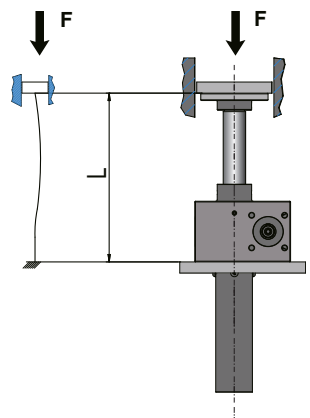
- **TRAVELLING VERSION**  
Hinged jack and screw terminal.
- **ROTATING VERSION**  
Hinged jack and nut.



### EULERO III

Constraint types:

- **TRAVELLING VERSION**  
Fixed jack housing  
Guided screw terminal.
- **ROTATING VERSION**  
Fixed jack housing  
Guided nut.

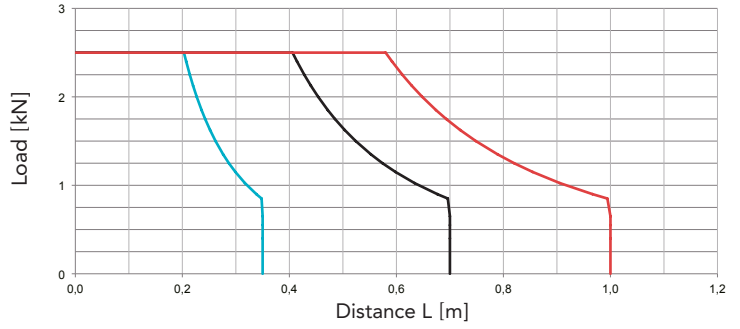




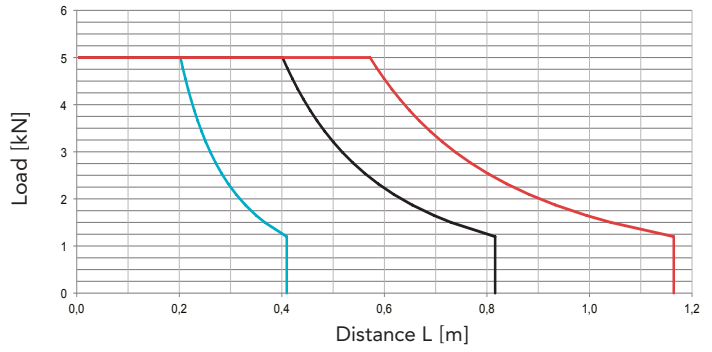
# GENERAL FEATURES

- Eulero I**
- Eulero II**
- Eulero III**

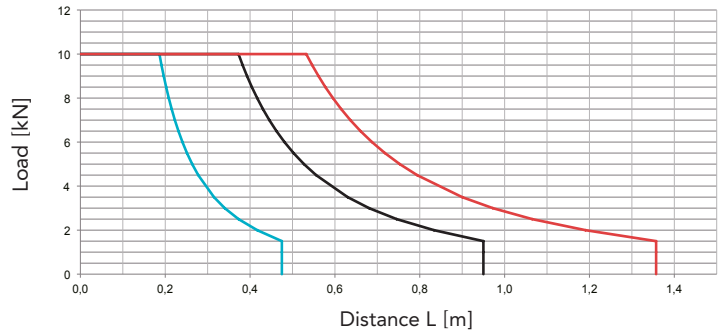
**Tr 16x4**



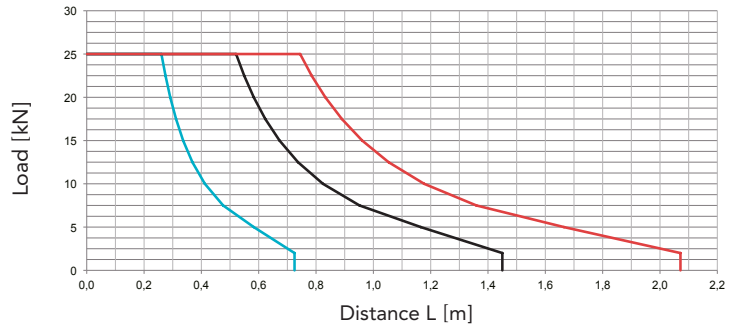
**Tr 18x4**



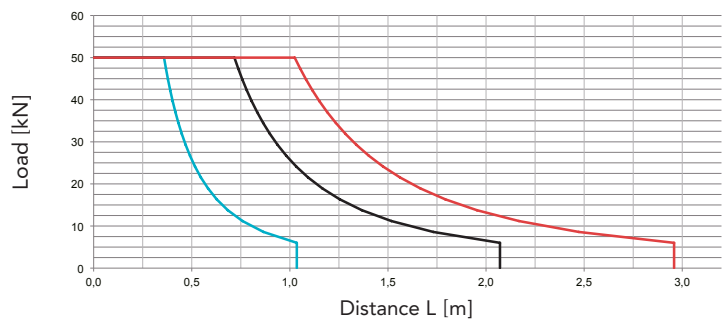
**Tr 20x4**



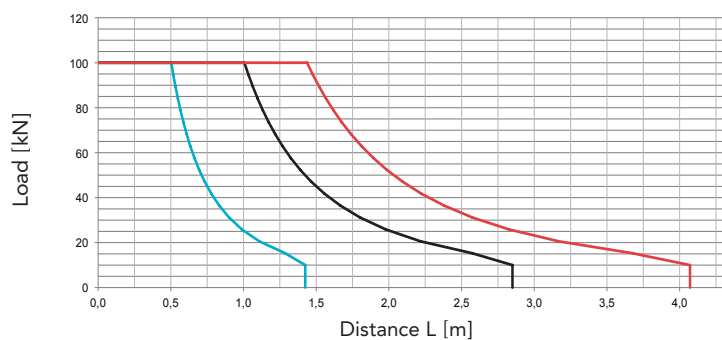
**Tr 30x6**



**Tr 40x7**

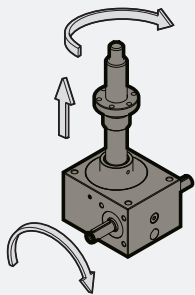


**Tr 55x9**

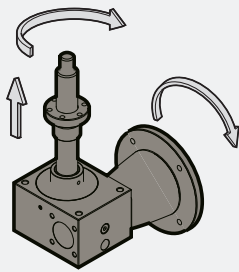




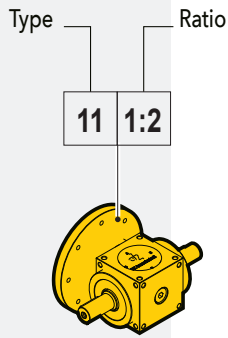
## LEGEND



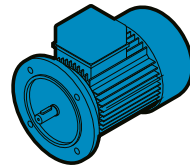
Screwjack



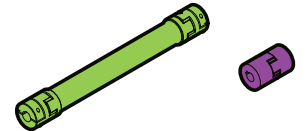
Bevel gear (Consult the QB series catalog)



- Available Ratios
- 1:1
  - 1:1,5
  - 1:2
  - 1:3
  - 1:4

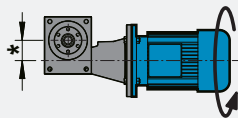


Motor

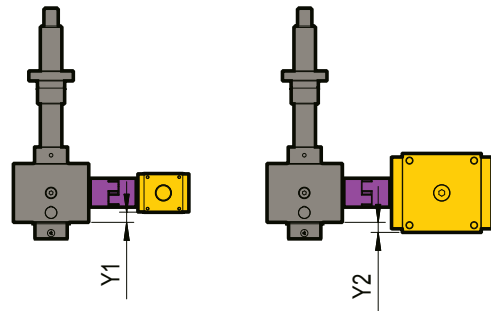


Transmission Shaft

Coupling



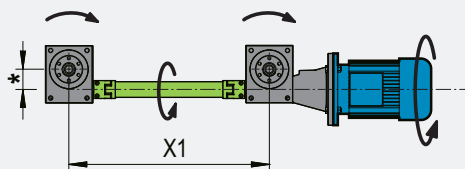
NOTE: The amount "\*" varies according to the jack sizeetto



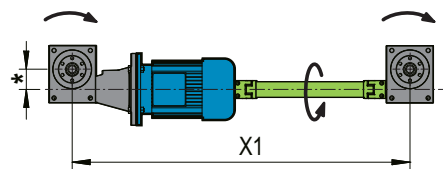
NOTE: The amounts Y1 and Y2 being the height of the jack and gear may have different measurements depending on the gear models used.

## 2.1 - 2.2 - 2.3 - 2.4

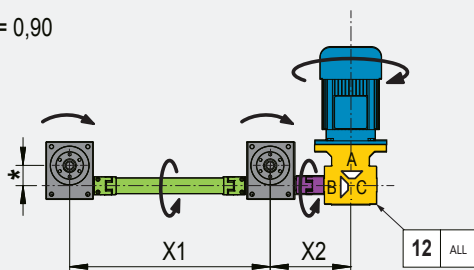
2.1  $\eta_c = 0,95$



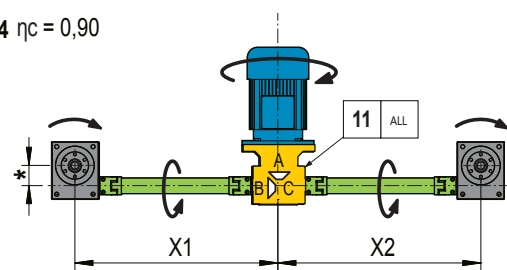
2.2  $\eta_c = 0,95$



2.3  $\eta_c = 0,90$



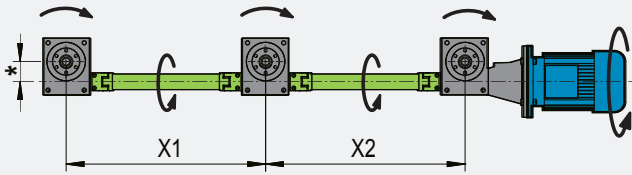
2.4  $\eta_c = 0,90$



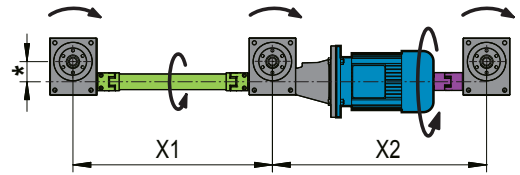


## 3.1 - 3.2 - 3.3 - 3.4 - 3.5 - 3.6 - 3.7

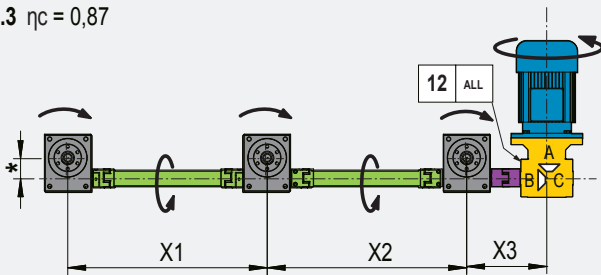
3.1  $\eta_c = 0,90$



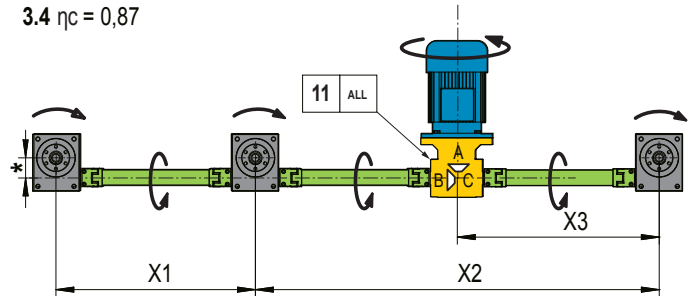
3.2  $\eta_c = 0,90$



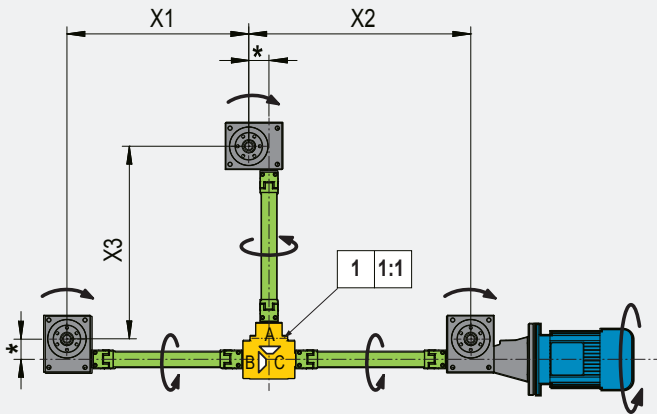
3.3  $\eta_c = 0,87$



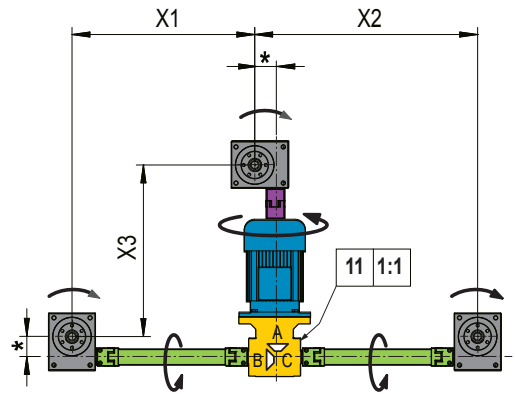
3.4  $\eta_c = 0,87$



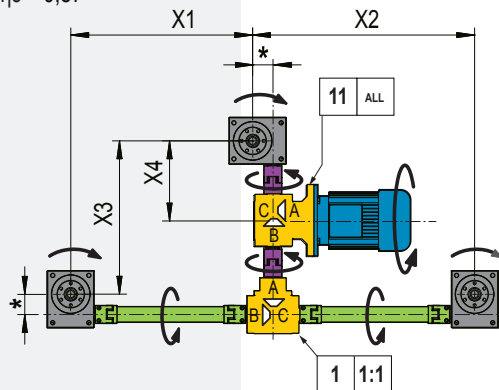
3.5  $\eta_c = 0,87$



3.6  $\eta_c = 0,87$



3.7  $\eta_c = 0,87$

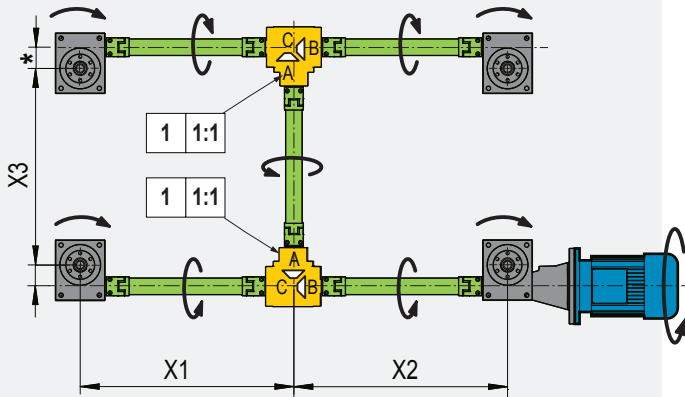




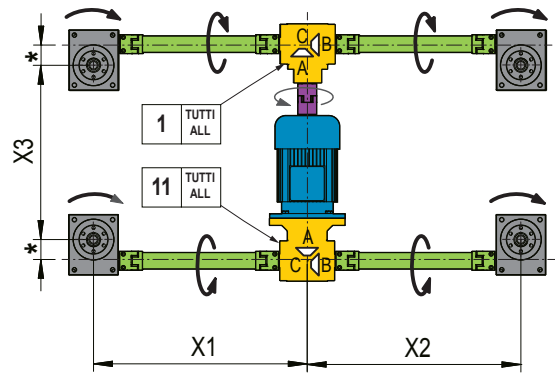
# ASSEMBLY DIAGRAMS

## 4.1 - 4.2 - 4.3

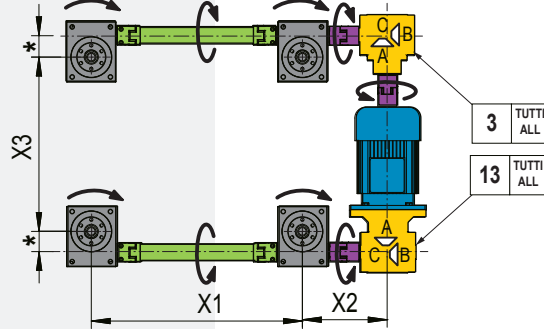
4.1  $\eta_c = 0,80$



4.2  $\eta_c = 0,80$

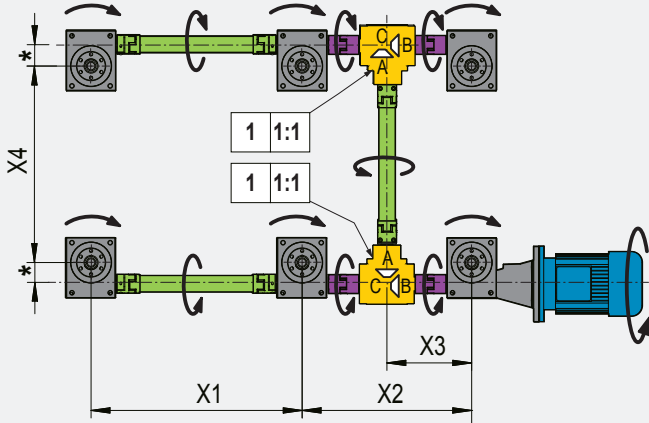


4.3  $\eta_c = 0,80$

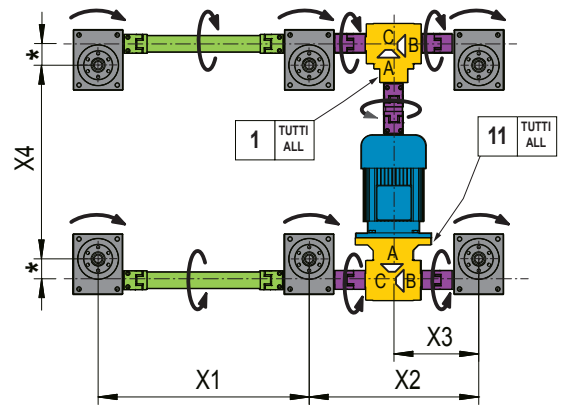


## 6.1 - 6.2 - 6.3

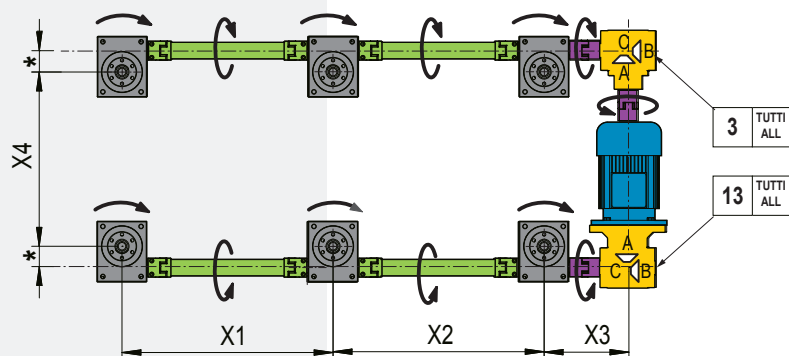
6.1  $\eta_c = 0,74$



6.2  $\eta_c = 0,74$

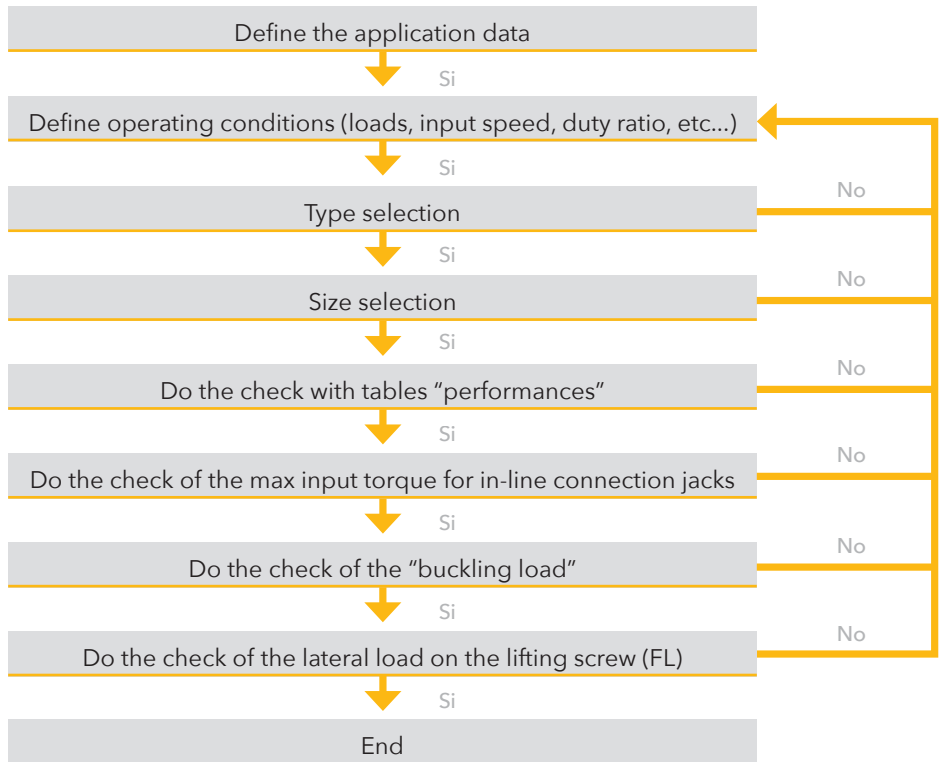


6.3  $\eta_c = 0,74$





# JACK SELECTION GUIDE

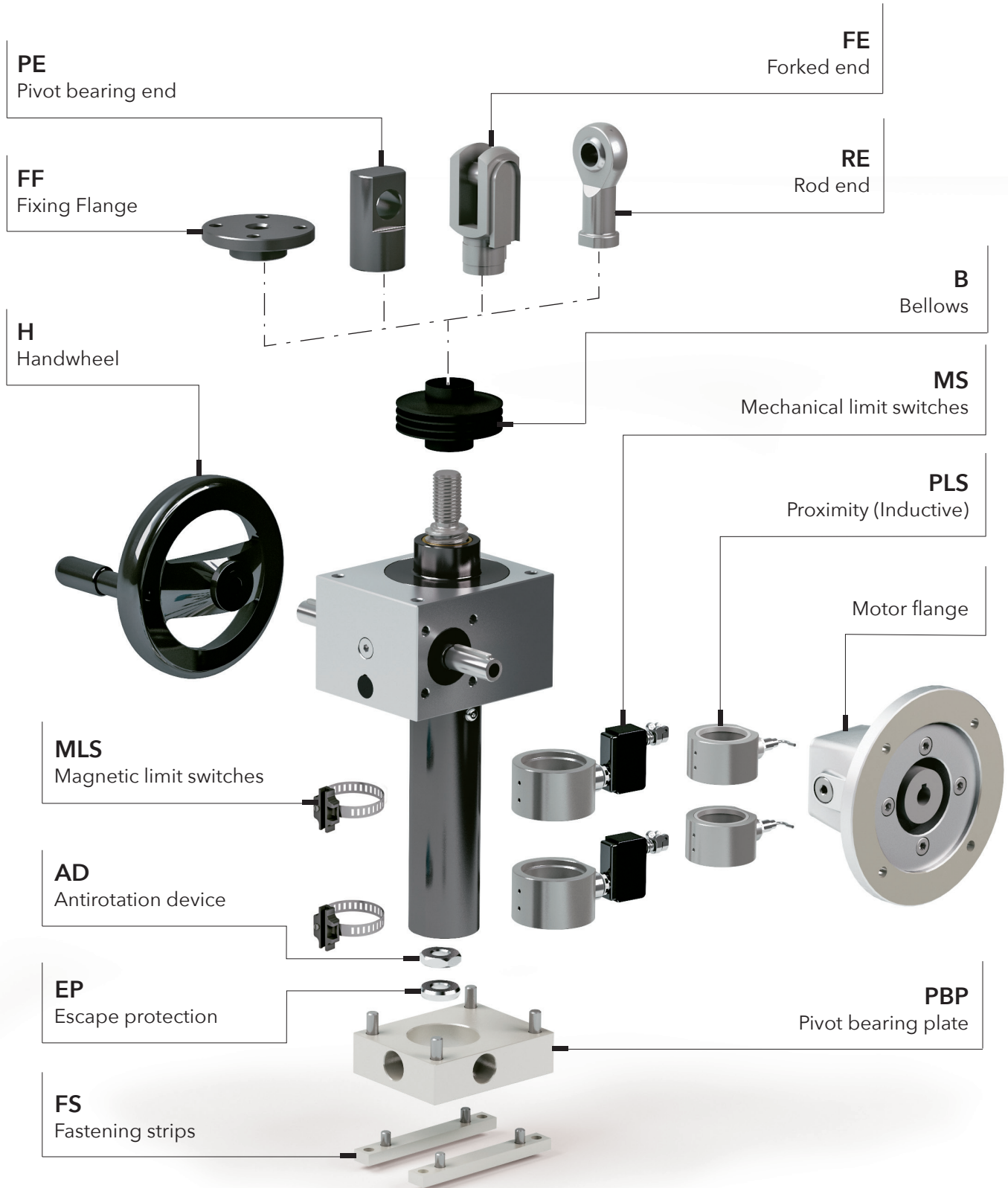


## ORDER CODE

Size	Type	Version	Reduction ratio	Screw	Stroke	Motor	Front Fixings	Accessories	Special
CHD2,5	T		N	Type Tr/VRS Diameter x pitch Tr18x4 - VRS 40x10	Stroke	Motor description CA-430-50-T-80-4-0,75	TE Treaded end (standard for type T)		SP
CHD5	R		L				PE Pivot bearing end		
CHD10							FF Fixing Flanged		
CHD25				Standard stroke Minimum stroke 50 mm in increments of 50 mm			RE Rod end		
CHD50							FE Forked end		
CHD100							CE Cylindrical end (standard for type R)		
							SE Special end		
							SN-R Safety Nuts (UP-R)		
							SN-T Safety Nuts UP-T version		
							IS Increased size screw UP-R		
							FS Fastening strips		
							PBP Pivot bearing plate		
							2PLS-1 N°2 Proximity (Inductive) sensors pos.1		
							2PLS-2 N°2 Proximity (Inductive) sensors pos.2		
							2PLS-3 N°2 Proximity (Inductive) sensors pos.3		
							2PLS-4 N°2 Proximity (Inductive) sensors pos.4		
							2MLS N° 2 Magnetic limit switches		
							3MLS N° 3 Magnetic limit switches		
							2MS-1 N° 2 Mecanical limit switches pos. 1		
							2MS-2 N° 2 Mecanical limit switches pos. 2		
							2MS-3 N° 2 Mecanical limit switches pos. 3		
							2MS-4 N° 2 Mecanical limit switches pos. 4		
							B Bellows		
							AD Antirotation Device (UP-T only)		
							EP Escape protection		
							SSV Stainless steel version		
							H Handwheel		
							VS Viton seals		
							SS Silicone seals		
A	2'shaft standard version								
B	1'shaft -left assembly								
C	1'shaft-right assembly								
D	2'shaft with motor flange and coupling-left assembly (without motor specify flange type)								
E	2'shaft with motor flange and coupling-right assembly (without motor specify flange type)								
F	1'shaft with motor flange and coupling-left assembly (without motor specify flange type)								
G	1'shaft with motor flange and coupling-right assembly (without motor specify flange type)								

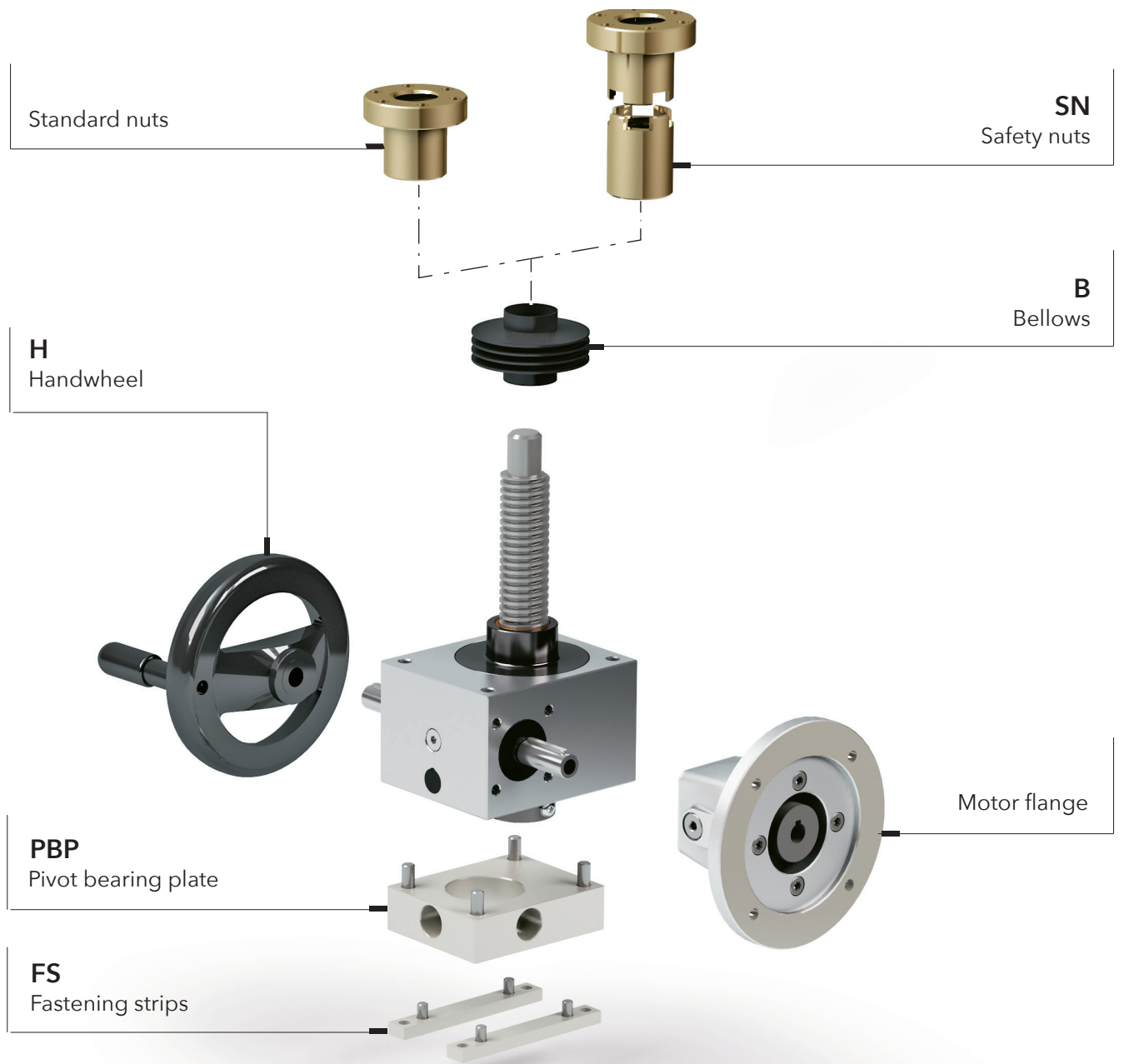


## TRAVELLING SCREW JACKS





**ROTATING SCREW JACKS**





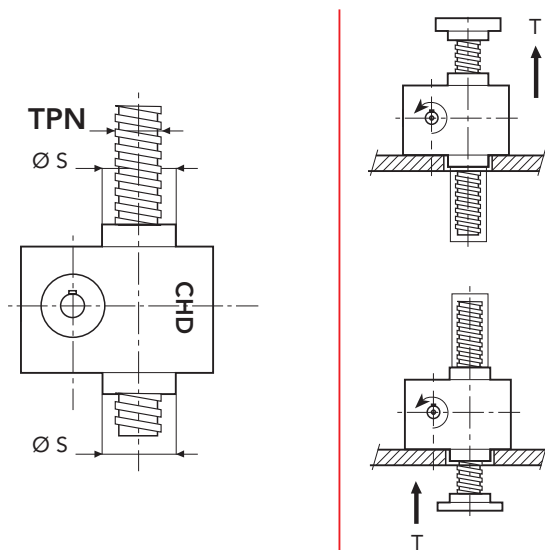
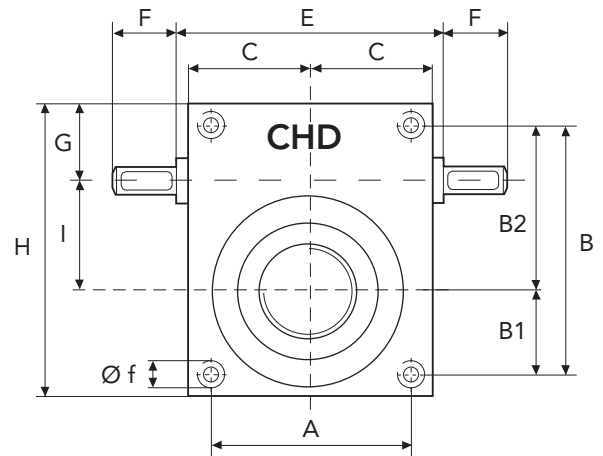
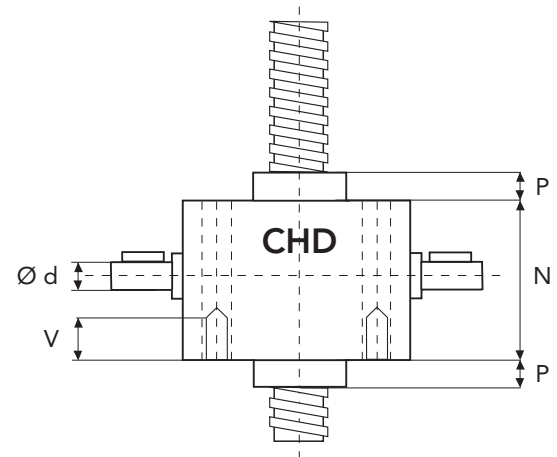


# SERIES CHD 2,5 TS

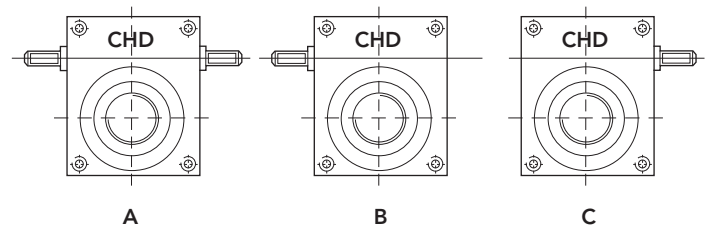
# TRANSLATING SCREW

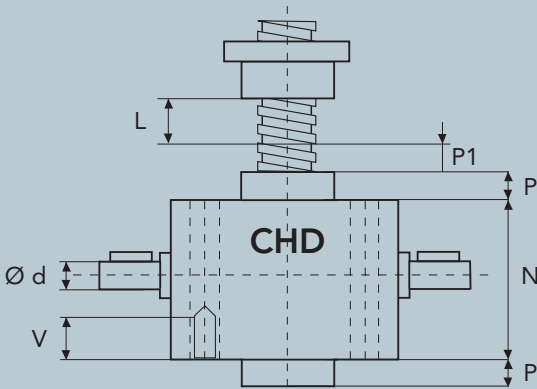
SERIES CHD 2,5 TS

SCREW JACK MODEL		CHD 2,5
LOAD	daN (Kg)	250
TPN SCREW	DIAMETER mm PITCH mm	16x4
GEAR RATIOS	NORMAL SPEED	1/4
	SLOW SPEED	1/16
STROKE FOR INPUT REV.	NORMAL SPEED	1
	SLOW SPEED	0,25
EFFICIENCY	NORMAL SPEED	36%
	SLOW SPEED	30%
JACK WEIGHT (Kg)		1
SCREW WEIGHT TPN X 100 mm (Kg)		0,25
CASE MATERIAL		ALUMINIUM
GREASE QTY (Kg)		0,02
GREASE TYPE	AGIP GR MU EP2	
OPERATING TEMPERATURE	-5 ° C +80 ° C	

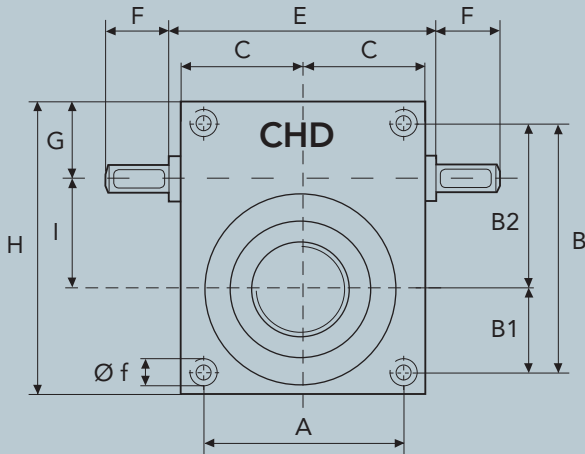


	A	B	B1	B2	C	E	F	G	H
CHD2,5	38	48	16	32	25	52	20	18	60
	I	N	P	P1	V	Ø d	Ø f	Ø s	TPN
CHD2,5	20	50	12	10	12	9	M6	26	16X4

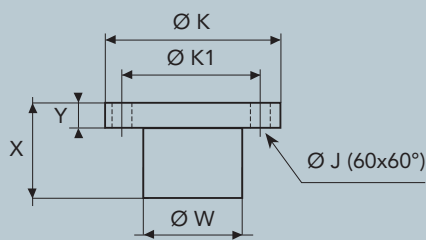




L = CORSA

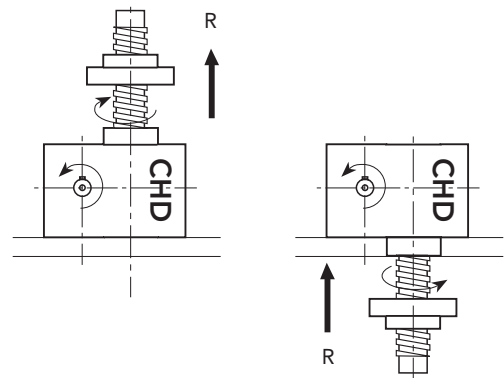
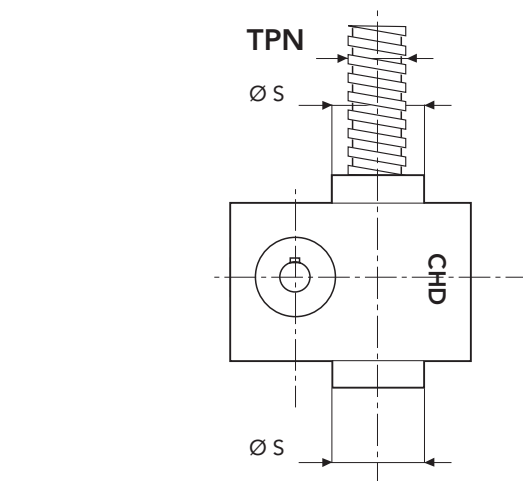


## BRONZE NUT

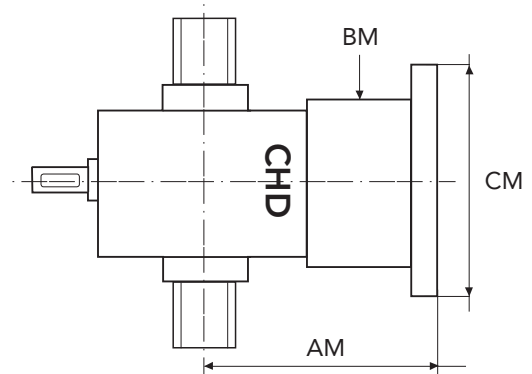


	X	Y	Ø W	Ø K	Ø K1	Ø J
CHD2,5	44	12	28	48	38	6

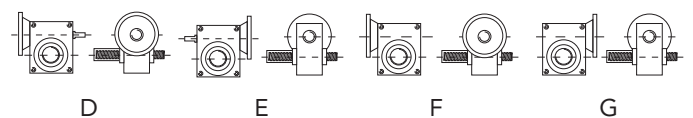
## CONFIGURATION



## PAM DIMENSIONS FOR BELL AND COUPLING



MOTOR	FLANGE TYPE	CM	AM	BM
GR. 56	B5	120	85	50
	B14	80		
GR. 63	B5	140	85	50
	B14	90		



SERIES CHD 2,5 RS

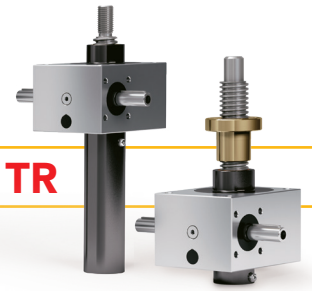


# SCREW JACK PERFORMANCE CHD 2,5

SCREW JACK PERFORMANCE SERIES CHD 2,5

## CHD TR SERIES

SCREW JACKS WITH  
TRAPEZOIDAL SCREWS



**CHD 2,5 TR**

16 x 4

Ratio		Load [kN]		2,5		2		1,5		1		0,5	
		nn1 rpm	speed	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]
N	1500	25,0	0,19	1,2	0,14	0,9	0,1	0,74	0,1	0,52	0,1	0,3	
	1000	16,7	0,13	1,2	0,1	0,9	0,1	0,74	0,1	0,52	0,1	0,3	
	750	12,5	0,1	1,2	0,1	0,9	0,1	0,74	0,1	0,52	0,1	0,3	
	500	8,3	0,1	1,2	0,1	0,9	0,1	0,74	0,1	0,52	0,1	0,3	
	300	5,0	0,1	1,2	0,1	0,9	0,1	0,74	0,1	0,52	0,1	0,3	
	100	1,7	0,1	1,2	0,1	0,9	0,1	0,74	0,1	0,52	0,1	0,3	
	50	0,8	0,1	1,2	0,1	0,9	0,1	0,74	0,1	0,52	0,1	0,3	
L	1500	6,3	0,1	0,4	0,1	0,3	0,1	0,25	0,1	0,2	0,1	0,12	
	1000	4,2	0,1	0,4	0,1	0,3	0,1	0,25	0,1	0,2	0,1	0,12	
	750	3,1	0,1	0,4	0,1	0,3	0,1	0,25	0,1	0,2	0,1	0,12	
	500	2,1	0,1	0,4	0,1	0,3	0,1	0,25	0,1	0,2	0,1	0,12	
	300	1,3	0,1	0,4	0,1	0,3	0,1	0,25	0,1	0,2	0,1	0,12	
	100	0,4	0,1	0,4	0,1	0,3	0,1	0,25	0,1	0,2	0,1	0,12	
	50	0,2	0,1	0,4	0,1	0,3	0,1	0,25	0,1	0,2	0,1	0,12	

## CHD VRS SERIES

ONLY ROTATING SCREW

see dimensions pages 48/49



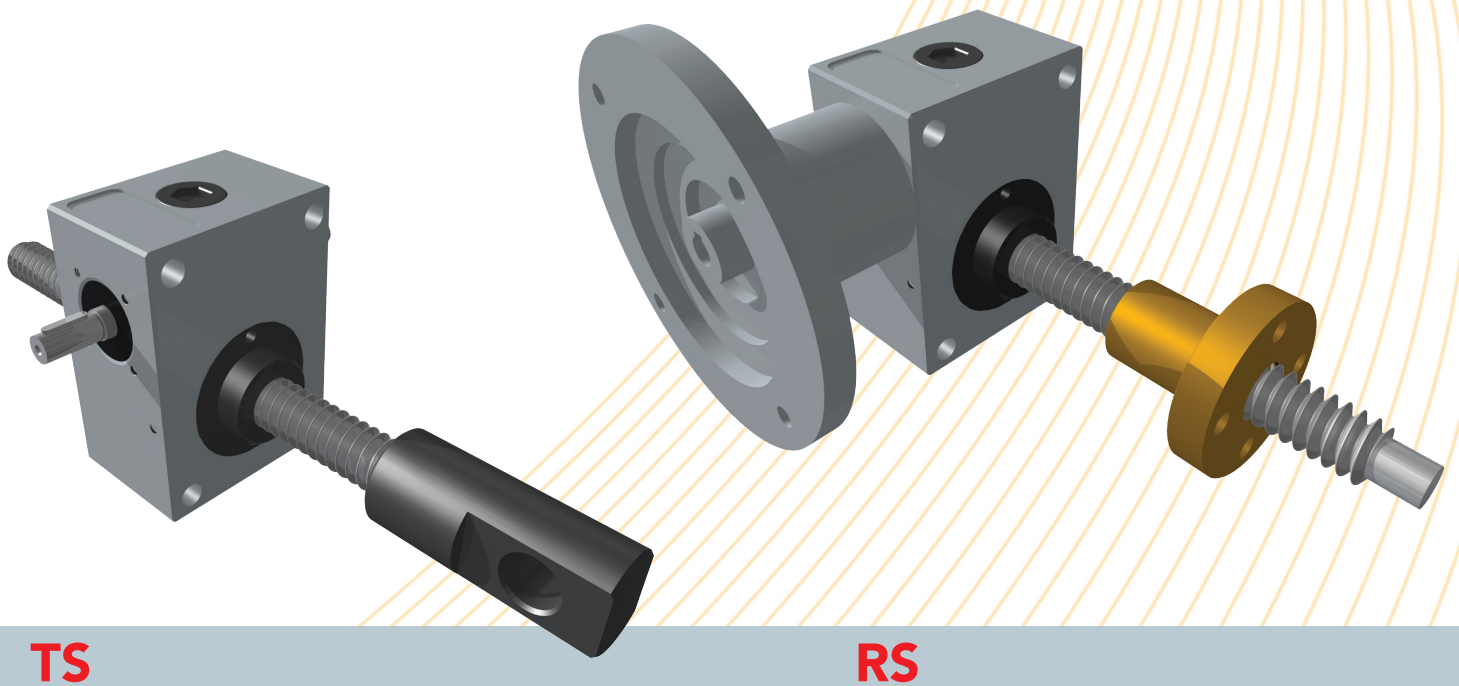
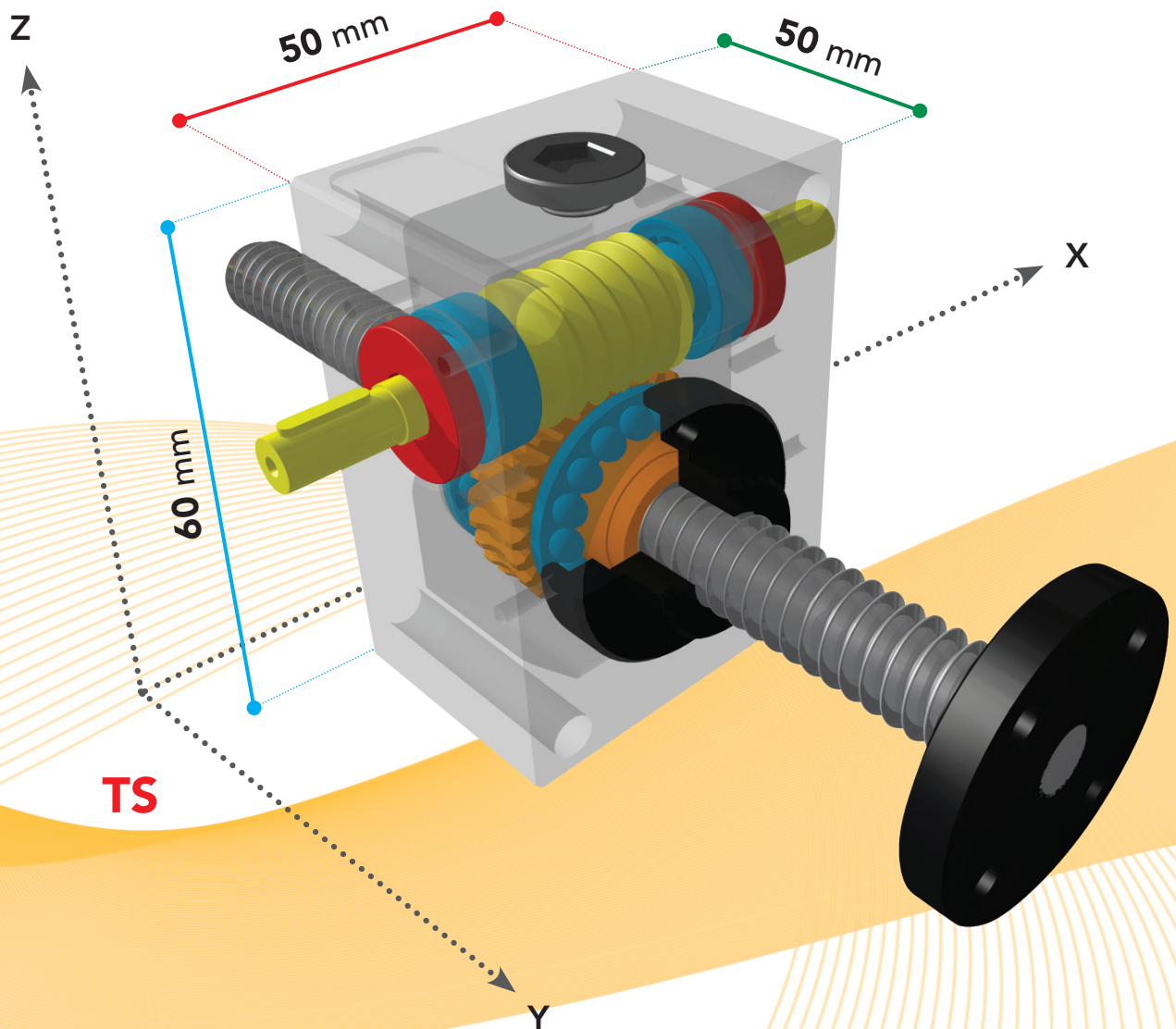
**CHD 2,5 VRS**

16 x 5

Ratio		Load [kN]		2,5		2		1,5		1		0,5	
		nn1 rpm	speed	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]
N	1500	31,3	0,1	0,7	0,1	0,6	0,1	0,5	0,1	0,3	0,1	0,2	
	1000	20,8	0,1	0,7	0,1	0,6	0,1	0,5	0,1	0,3	0,1	0,2	
	750	15,6	0,1	0,7	0,1	0,6	0,1	0,5	0,1	0,3	0,1	0,2	
	500	10,4	0,1	0,7	0,1	0,6	0,1	0,5	0,1	0,3	0,1	0,2	
	300	6,3	0,1	0,7	0,1	0,6	0,1	0,5	0,1	0,3	0,1	0,2	
	100	2,1	0,1	0,7	0,1	0,6	0,1	0,5	0,1	0,3	0,1	0,2	
	50	1,0	0,1	0,7	0,1	0,6	0,1	0,5	0,1	0,3	0,1	0,2	
L	1500	7,8	0,1	0,3	0,1	0,2	0,1	0,16	0,1	0,13	0,1	0,1	
	1000	5,2	0,1	0,3	0,1	0,2	0,1	0,16	0,1	0,13	0,1	0,1	
	750	3,9	0,1	0,3	0,1	0,2	0,1	0,16	0,1	0,13	0,1	0,1	
	500	2,6	0,1	0,3	0,1	0,2	0,1	0,16	0,1	0,13	0,1	0,1	
	300	1,6	0,1	0,3	0,1	0,2	0,1	0,16	0,1	0,13	0,1	0,1	
	100	0,5	0,1	0,3	0,1	0,2	0,1	0,16	0,1	0,13	0,1	0,1	
	50	0,3	0,1	0,3	0,1	0,2	0,1	0,16	0,1	0,13	0,1	0,1	



# CHD 2,5



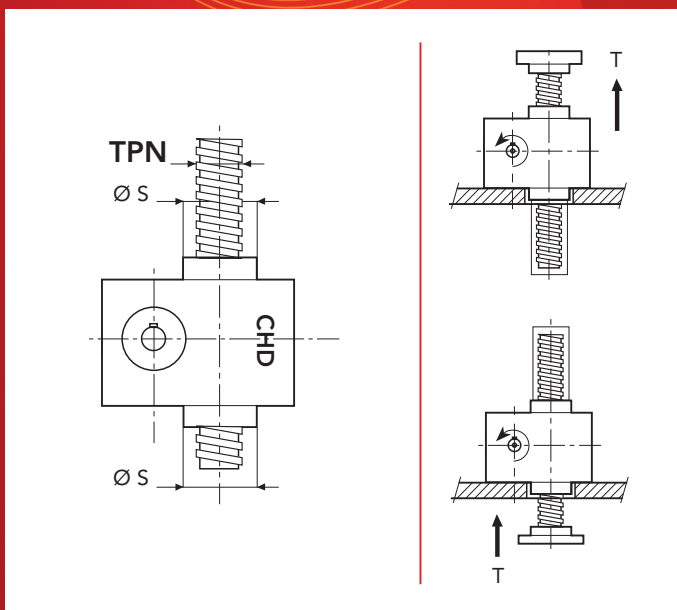
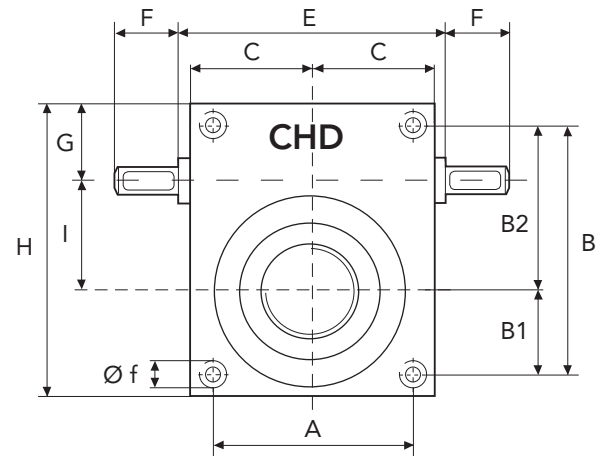
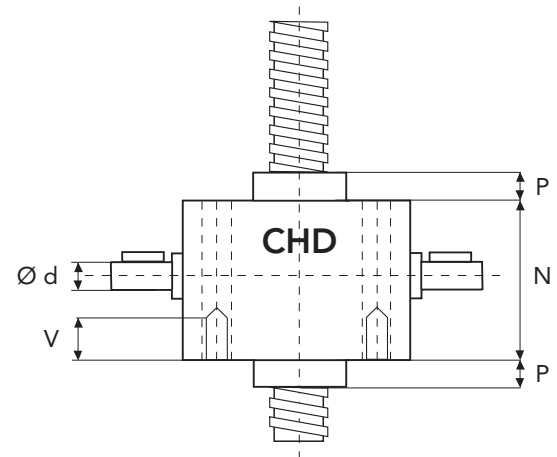


# SERIES CHD 5 TS

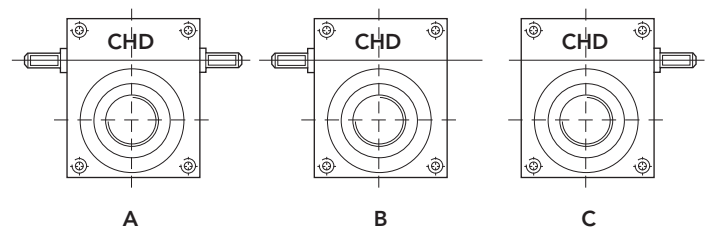
# TRANSLATING SCREW

SERIES CHD 5 TS

SCREW JACK MODEL		CHD 5
LOAD	daN (Kg)	500
TPN SCREW	DIAMETER mm PITCH mm	18 4
GEAR RATIOS	NORMAL SPEED SLOW SPEED	1/4 1/16
STROKE FOR INPUT REV.	NORMAL SPEED SLOW SPEED	1 0,25
EFFICIENCY	NORMAL SPEED SLOW SPEED	32 % 27 %
JACK WEIGHT (Kg)		1,6
SCREW WEIGHT TPN X 100 mm (Kg)		0,22
CASE MATERIAL		ALUMINIUM
GREASE QTY (Kg)		0,03
GREASE TYPE	AGIP GR MU EP2	
OPERATING TEMPERATURE	-5° C +80° C	



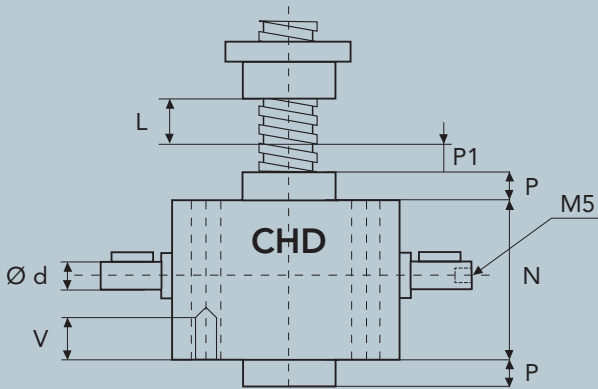
	A	B	B1	B2	C	E	F	G	H
CHD5	52	60	21	39	36	75	22,5	23	78
	I	N	P	P1	V	Ø d	Ø f	Ø s	TPN
CHD5	25	62	12	10	13	10	M8	30	18x4



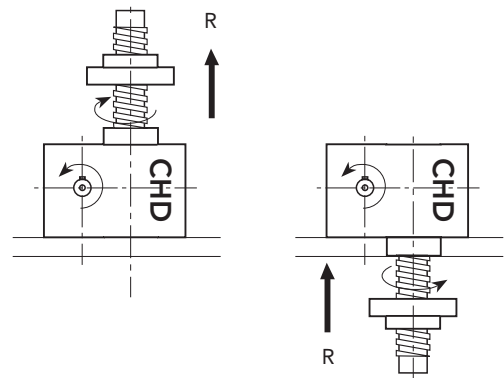
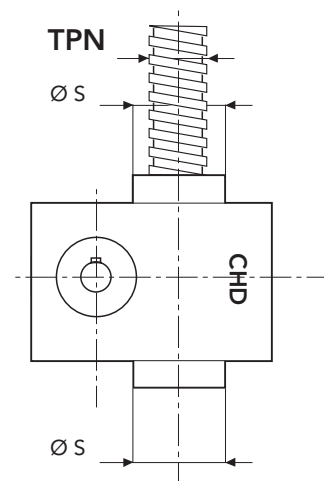
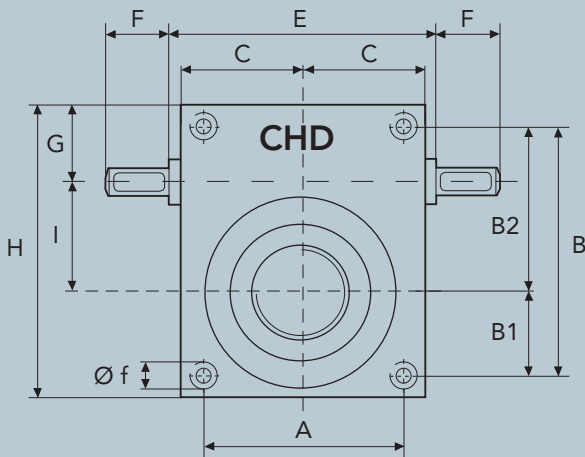


# SERIES CHD 5 RS

# ROTATING SCREW

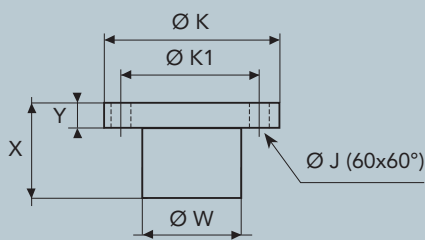


L = STROKE

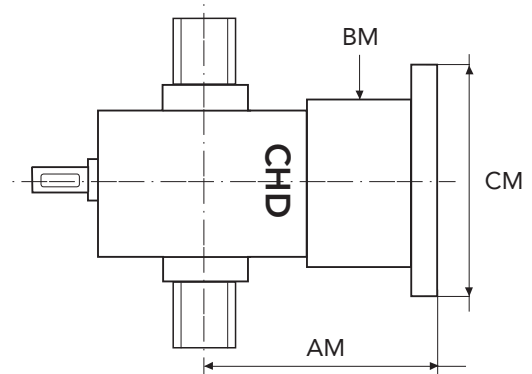


SERIES CHD 5 RS

## BRONZE NUT



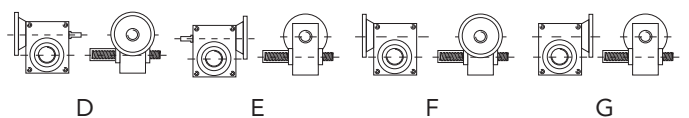
## PAM DIMENSIONS FOR BELL AND COUPLING



	X	Y	Ø W	Ø K	Ø K1	Ø J
CHD5	44	12	27,8	48	38	6

MOTOR	FLANGE TYPE	CM	AM	BM
GR. 56	B5	120	93	60
GR. 63	B5	140	96	
GR. 71	B5	160	101	

## CONFIGURATION

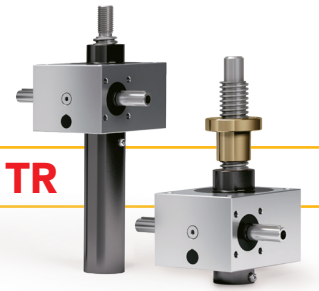




# SCREW JACK PERFORMANCE CHD 5

## CHD TR SERIES

SCREW JACKS WITH  
TRAPEZOIDAL SCREWS



**CHD 5 TR**

18 x 4

Ratio		Load [kN]		5		4		3		2		1	
		nn1 rpm	speed	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]
N	1500	25,0	0,42	2,7	0,33	2,1	0,25	1,6	0,17	1,1	0,1	0,6	
	1000	16,7	0,28	2,7	0,22	2,1	0,17	1,6	0,12	1,1	0,1	0,6	
	750	12,5	0,21	2,7	0,16	2,1	0,13	1,6	0,1	1,1	0,1	0,6	
	500	8,3	0,14	2,7	0,11	2,1	0,1	1,6	0,1	1,1	0,1	0,6	
	300	5,0	0,1	2,7	0,1	2,1	0,1	1,6	0,1	1,1	0,1	0,6	
	100	1,7	0,1	2,7	0,1	2,1	0,1	1,6	0,1	1,1	0,1	0,6	
	50	0,8	0,1	2,7	0,1	2,1	0,1	1,6	0,1	1,1	0,1	0,6	
L	1500	6,3	0,14	0,9	0,1	0,7	0,1	0,5	0,1	0,4	0,1	0,3	
	1000	4,2	0,1	0,9	0,1	0,7	0,1	0,5	0,1	0,4	0,1	0,3	
	750	3,1	0,1	0,9	0,1	0,7	0,1	0,5	0,1	0,4	0,1	0,3	
	500	2,1	0,1	0,9	0,1	0,7	0,1	0,5	0,1	0,4	0,1	0,3	
	300	1,3	0,1	0,9	0,1	0,7	0,1	0,5	0,1	0,4	0,1	0,3	
	100	0,4	0,1	0,9	0,1	0,7	0,1	0,5	0,1	0,4	0,1	0,3	
	50	0,2	0,1	0,9	0,1	0,7	0,1	0,5	0,1	0,4	0,1	0,3	

## CHD VRS SERIES

ONLY ROTATING SCREW

see dimensions pages 48/49



**CHD 5 VRS**

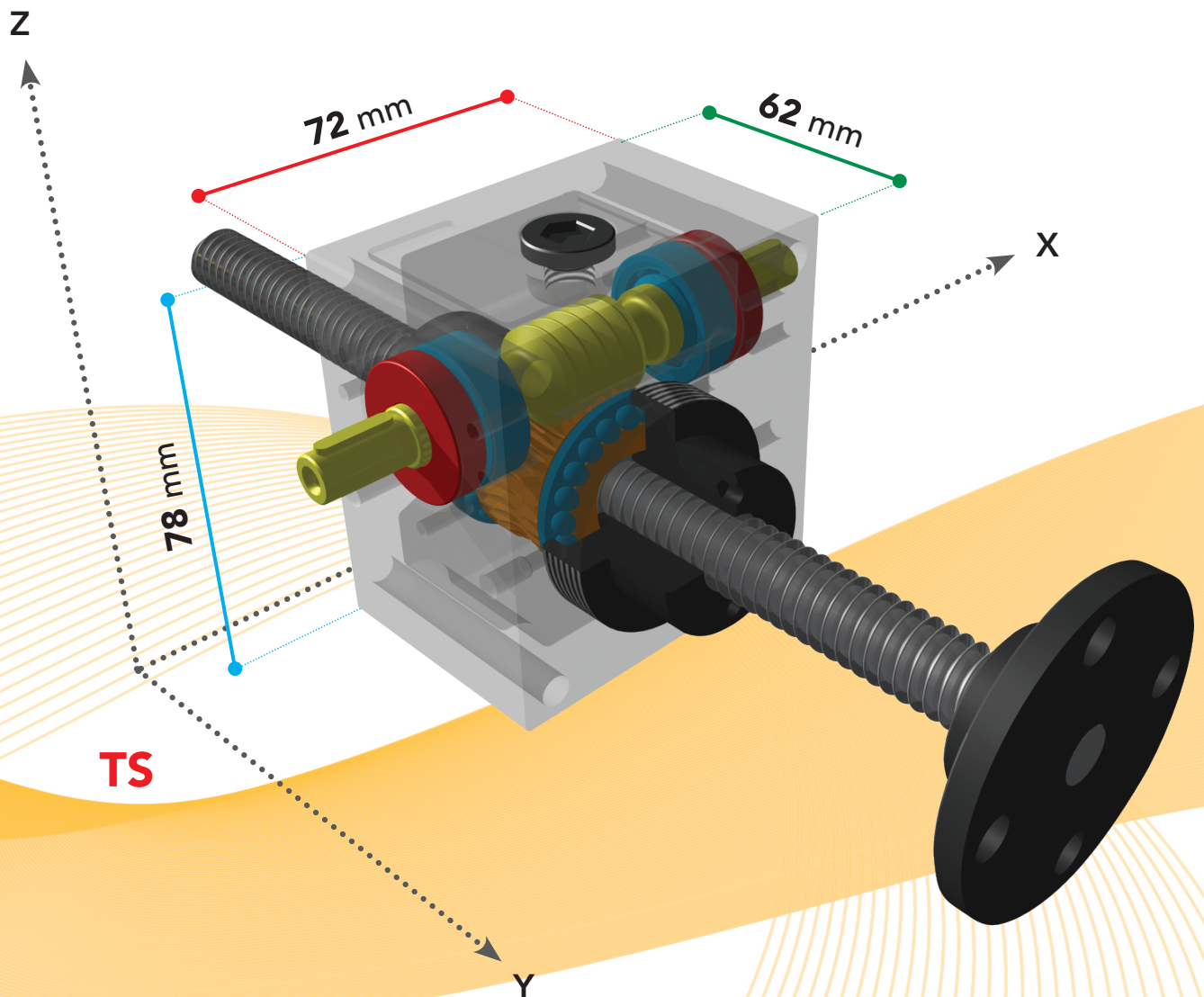
16 x 5

Ratio		Load [kN]		5		4		3		2		1	
		nn1 rpm	speed	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]
N	1500	31,3	0,20	1,3	0,16	1	0,13	0,8	0,1	0,6	0,1	0,4	
	1000	20,8	0,14	1,3	0,1	1	0,1	0,8	0,1	0,6	0,1	0,4	
	750	15,6	0,1	1,3	0,1	1	0,1	0,8	0,1	0,6	0,1	0,4	
	500	10,4	0,1	1,3	0,1	1	0,1	0,8	0,1	0,6	0,1	0,4	
	300	6,3	0,1	1,3	0,1	1	0,1	0,8	0,1	0,6	0,1	0,4	
	100	2,1	0,1	1,3	0,1	1	0,1	0,8	0,1	0,6	0,1	0,4	
	50	1,0	0,1	1,3	0,1	1	0,1	0,8	0,1	0,6	0,1	0,4	
L	1500	7,8	0,1	0,5	0,1	0,4	0,1	0,3	0,1	0,3	0,1	0,2	
	1000	5,2	0,1	0,5	0,1	0,4	0,1	0,3	0,1	0,3	0,1	0,2	
	750	3,9	0,1	0,5	0,1	0,4	0,1	0,3	0,1	0,3	0,1	0,2	
	500	2,6	0,1	0,5	0,1	0,4	0,1	0,3	0,1	0,3	0,1	0,2	
	300	1,6	0,1	0,5	0,1	0,4	0,1	0,3	0,1	0,3	0,1	0,2	
	100	0,5	0,1	0,5	0,1	0,4	0,1	0,3	0,1	0,3	0,1	0,2	
	50	0,3	0,1	0,5	0,1	0,4	0,1	0,3	0,1	0,3	0,1	0,2	

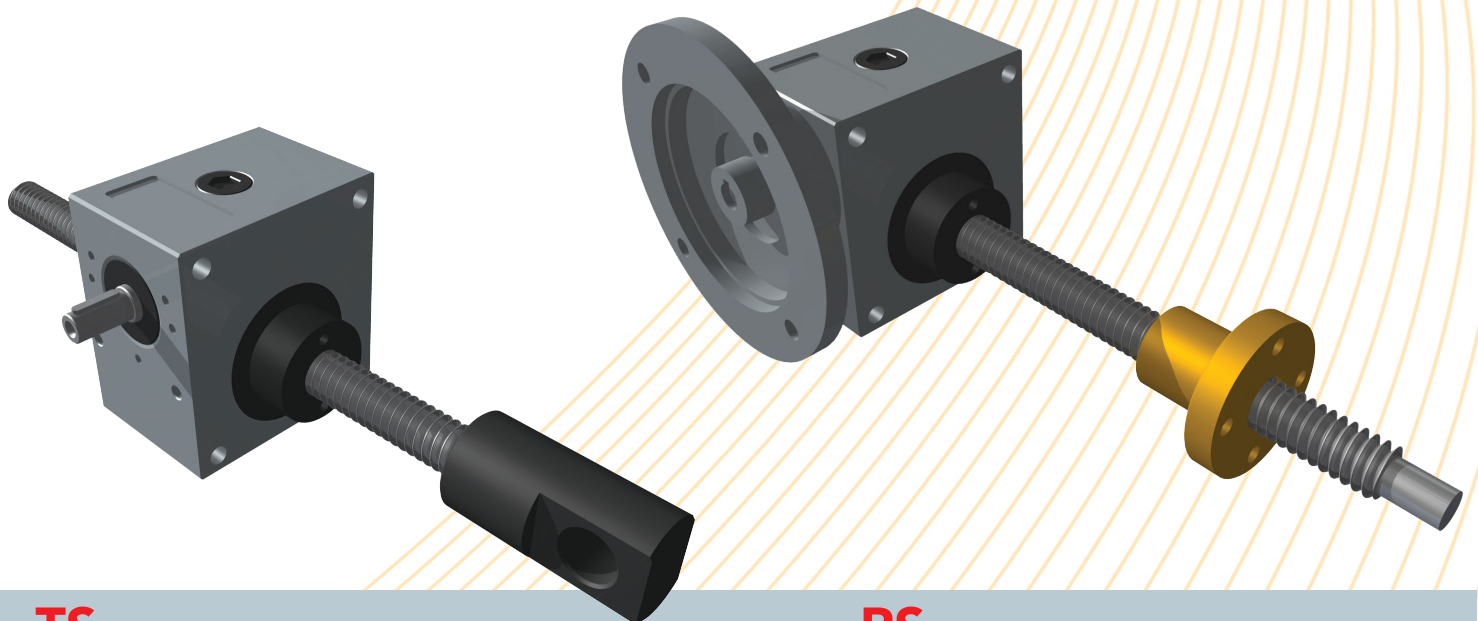
SCREW JACK PERFORMANCE SERIES CHD 5



# CHD 5



**TS**



**TS**

**RS**



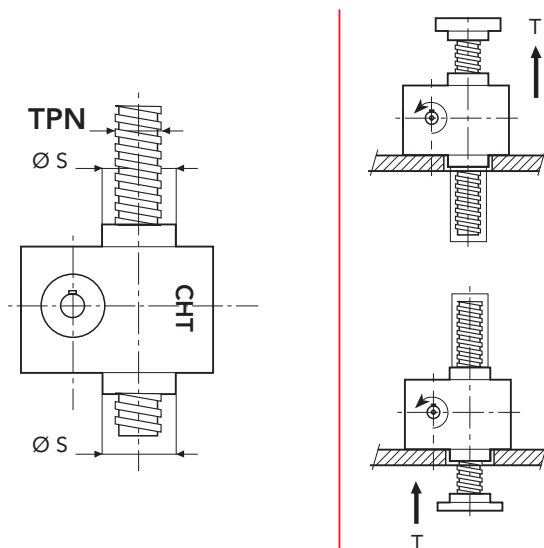
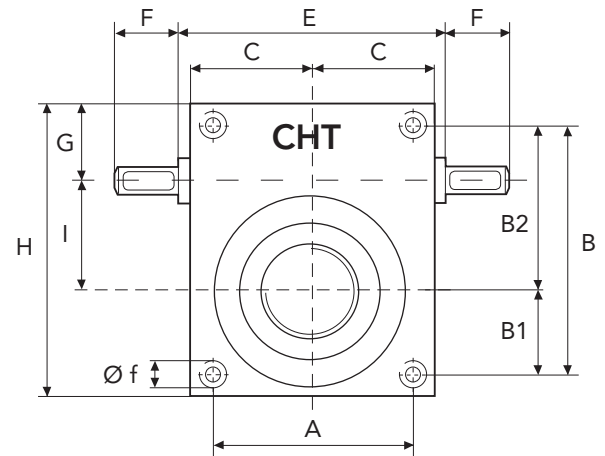
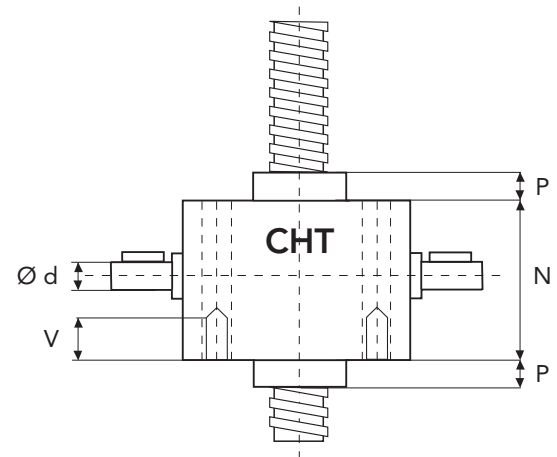


# SERIES CHD 10 TS

# TRANSLATING SCREW

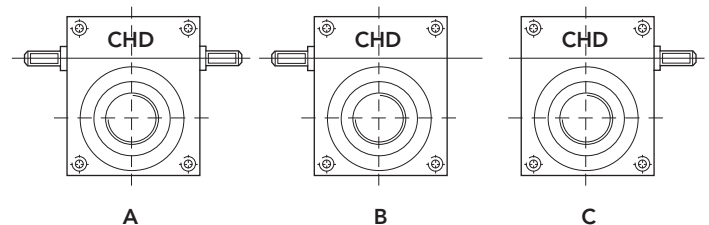
SERIES CHD 10 TS

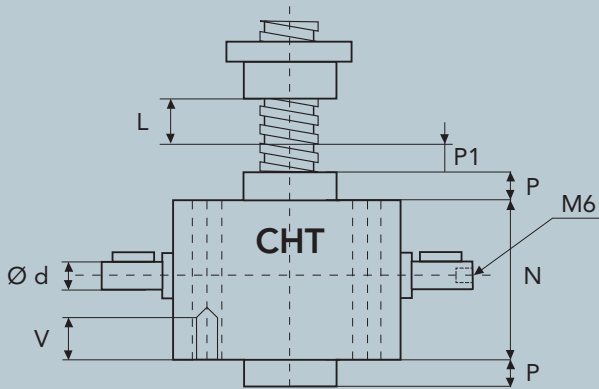
SCREW JACK MODEL		CHD 10
LOAD	daN (Kg)	1000
TPN SCREW	DIAMETER mm PITCH mm	20 4
GEAR RATIOS	NORMAL SPEED SLOW SPEED	1/4 1/16
STROKE FOR INPUT REV.	NORMAL SPEED SLOW SPEED	1 0,25
EFFICIENCY	NORMAL SPEED SLOW SPEED	30 % 27 %
JACK WEIGHT (Kg)		2,8
SCREW WEIGHT TPN X 100 mm (Kg)		0,2
CASE MATERIAL		ALUMINIUM
GREASE QTY (Kg)		0,05
GREASE TYPE	AGIP GR MU EP2	
OPERATING TEMPERATURE	-5° C +80° C	



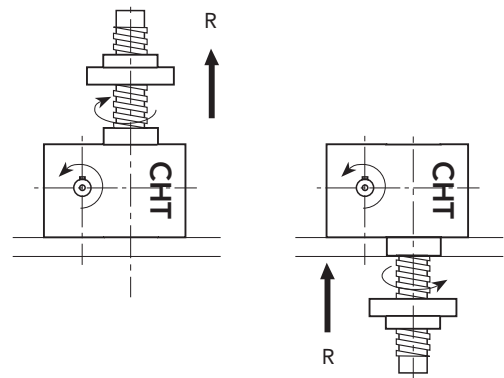
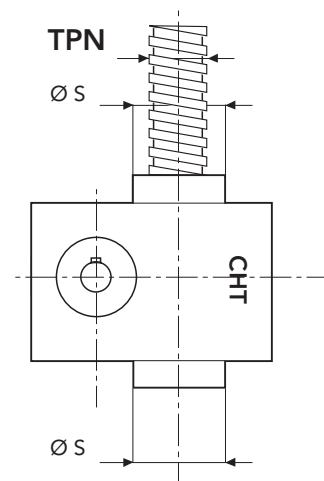
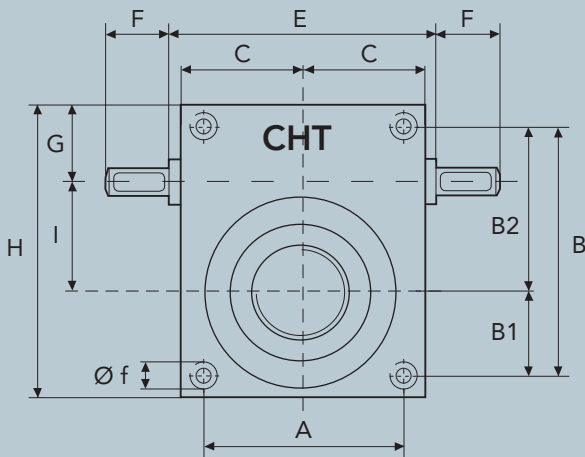
	A	B	B1	B2	C	E	F	G	H
CHD10	63	78	29	49	42,5	90	25	27	98
	I	N	P	P1	V	Ø d	Ø f	Ø s	TPN
CHD10	32	75	18	10	15	14	M8	39	20x4

\* tapped holes on request



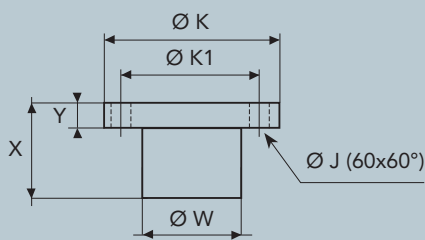


L = STROKE

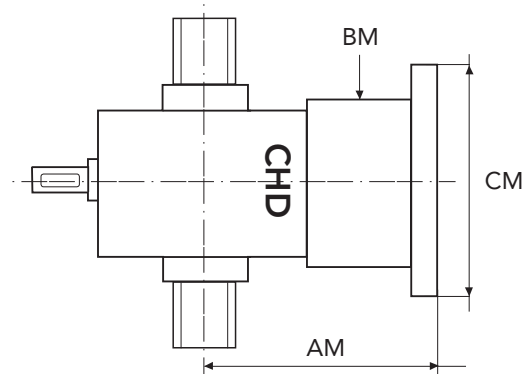


SERIES CHD 10 RS

## BRONZE NUT



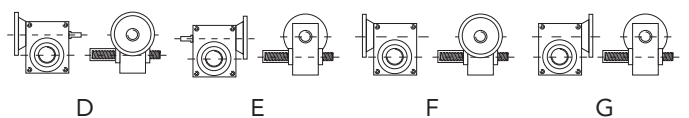
## PAM DIMENSIONS FOR BELL AND COUPLING



	X	Y	Ø W	Ø K	Ø K1	Ø J
CHD10	44	12	31,8	55	45	7

MOTOR	FLANGE TYPE	CM	AM	BM
GR. 63	B5	140	117,5	70
GR. 71	B5	160	122,5	
GR. 80	B5	200	132,5	

## CONFIGURATION



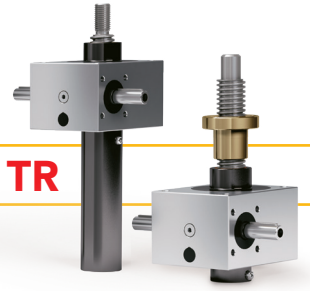


# SCREW JACK PERFORMANCE CHD 10

SCREW JACK PERFORMANCE SERIES CHD 10

## CHD TR SERIES

SCREW JACKS WITH  
TRAPEZOIDAL SCREWS



**CHD 10 TR**

20 x 4

		Load [kN]		10		8		6		4		2	
		nn1 rpm	speed	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]
Ratio	N	1500	25,0	0,88	5,6	0,71	4,5	0,55	3,5	0,38	2,4	0,20	1,3
		1000	16,7	0,59	5,6	0,47	4,5	0,37	3,5	0,25	2,4	0,14	1,3
		750	12,5	0,44	5,6	0,35	4,5	0,27	3,5	0,19	2,4	0,1	1,3
		500	8,3	0,29	5,6	0,24	4,5	0,18	3,5	0,13	2,4	0,1	1,3
		300	5,0	0,18	5,6	0,14	4,5	0,11	3,5	0,1	2,4	0,1	1,3
		100	1,7	0,1	5,6	0,1	4,5	0,1	3,5	0,1	2,4	0,1	1,3
		50	0,8	0,1	5,6	0,1	4,5	0,1	3,5	0,1	2,4	0,1	1,3
		1500	6,3	0,25	1,6	0,20	1,3	0,17	1,1	0,13	0,8	0,1	0,4
Ratio	L	1000	4,2	0,17	1,6	0,14	1,3	0,12	1,1	0,1	0,8	0,1	0,4
		750	3,1	0,13	1,6	0,1	1,3	0,1	1,1	0,1	0,8	0,1	0,4
		500	2,1	0,1	1,6	0,1	1,3	0,1	1,1	0,1	0,8	0,1	0,4
		300	1,3	0,1	1,6	0,1	1,3	0,1	1,1	0,1	0,8	0,1	0,4
		100	0,4	0,1	1,6	0,1	1,3	0,1	1,1	0,1	0,8	0,1	0,4
		50	0,2	0,1	1,6	0,1	1,3	0,1	1,1	0,1	0,8	0,1	0,4

## CHD VRS SERIES

ONLY ROTATING SCREW

see dimensions pages 48/49



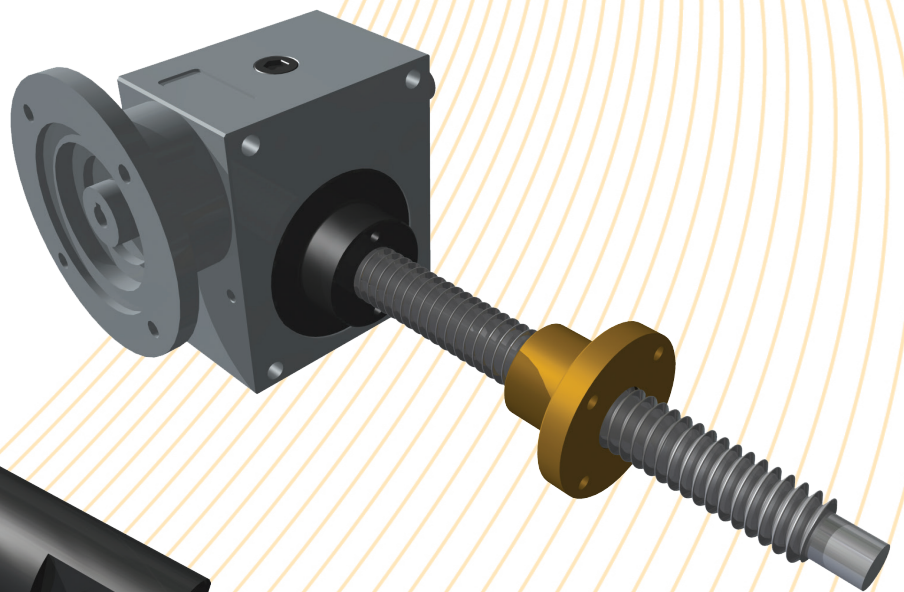
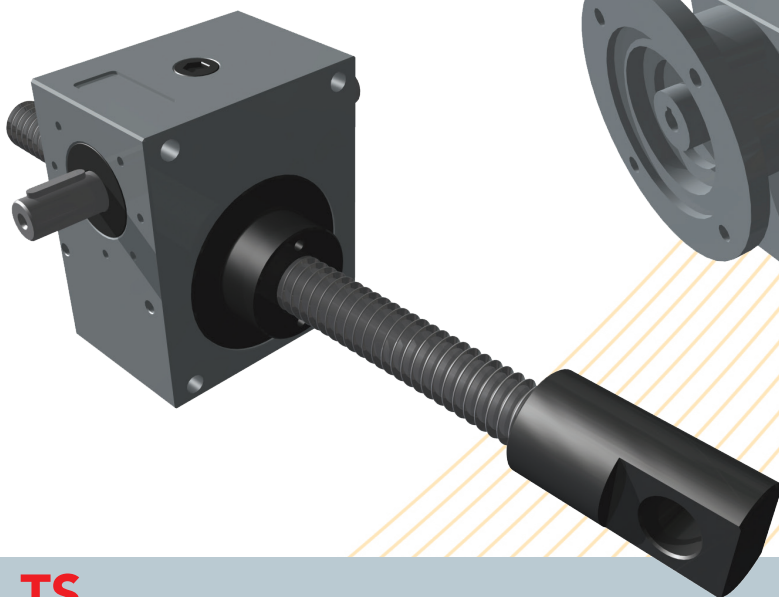
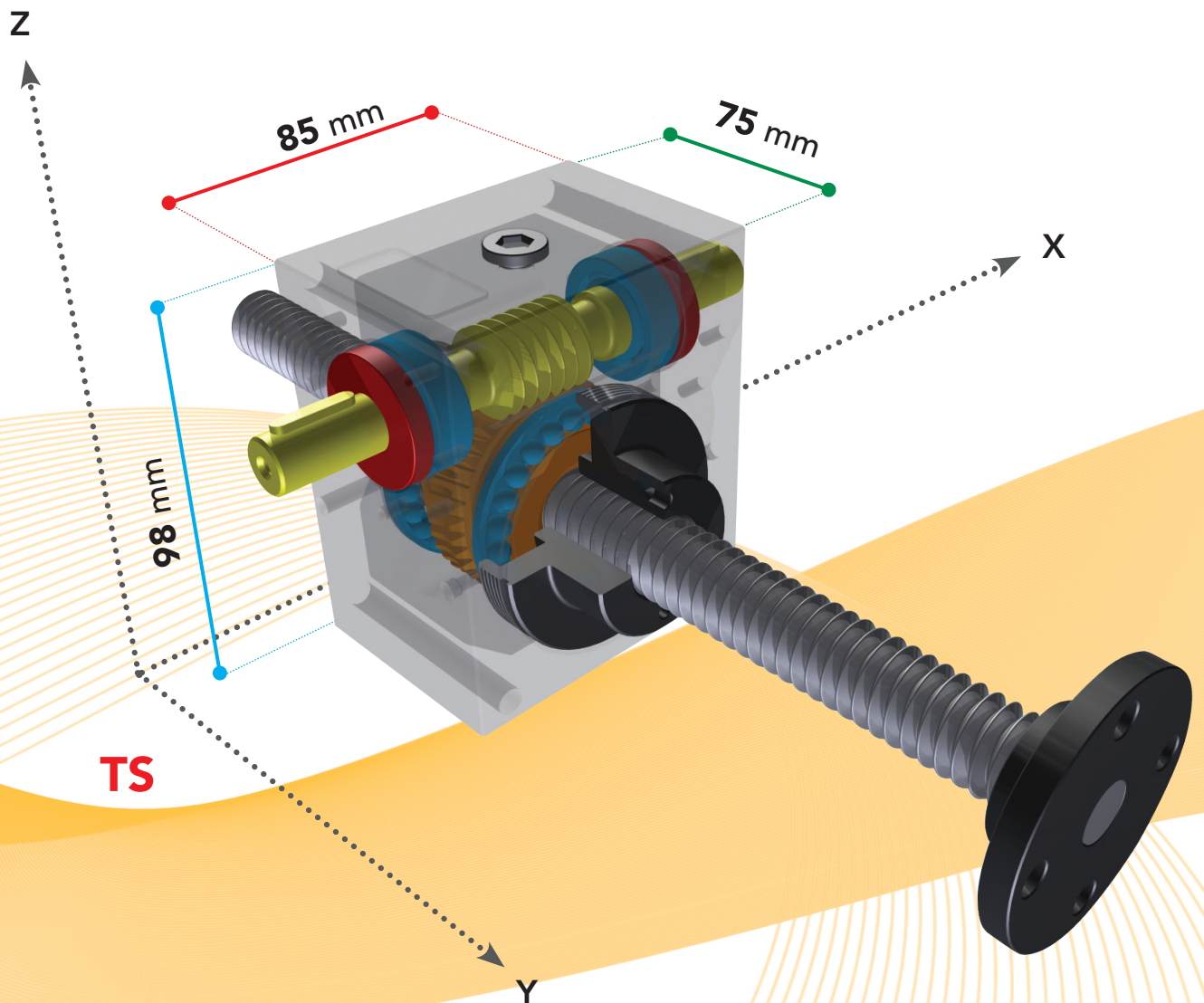
**CHD 10 VRS**

20 x 5

		Load [kN]		10		8		6		4		2	
		nn1 rpm	speed	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]
Ratio	N	1500	31,3	0,42	2,7	0,35	2,2	0,27	1,7	0,19	1,2	0,13	0,8
		1000	20,8	0,28	2,7	0,22	2,2	0,18	1,7	0,13	1,2	0,1	0,8
		750	15,6	0,21	2,7	0,17	2,2	0,13	1,7	0,1	1,2	0,1	0,8
		500	10,4	0,14	2,7	0,12	2,2	0,1	1,7	0,1	1,2	0,1	0,8
		300	6,3	0,1	2,7	0,1	2,2	0,1	1,7	0,1	1,2	0,1	0,8
		100	2,1	0,1	2,7	0,1	2,2	0,1	1,7	0,1	1,2	0,1	0,8
		50	1,0	0,1	2,7	0,1	2,2	0,1	1,7	0,1	1,2	0,1	0,8
		1500	7,8	0,11	0,7	0,1	0,6	0,1	0,5	0,1	0,4	0,1	0,3
Ratio	L	1000	5,2	0,1	0,7	0,1	0,6	0,1	0,5	0,1	0,4	0,1	0,3
		750	3,9	0,1	0,7	0,1	0,6	0,1	0,5	0,1	0,4	0,1	0,3
		500	2,6	0,1	0,7	0,1	0,6	0,1	0,5	0,1	0,4	0,1	0,3
		300	1,6	0,1	0,7	0,1	0,6	0,1	0,5	0,1	0,4	0,1	0,3
		100	0,5	0,1	0,7	0,1	0,6	0,1	0,5	0,1	0,4	0,1	0,3
		50	0,3	0,1	0,7	0,1	0,6	0,1	0,5	0,1	0,4	0,1	0,3



# CHD 10



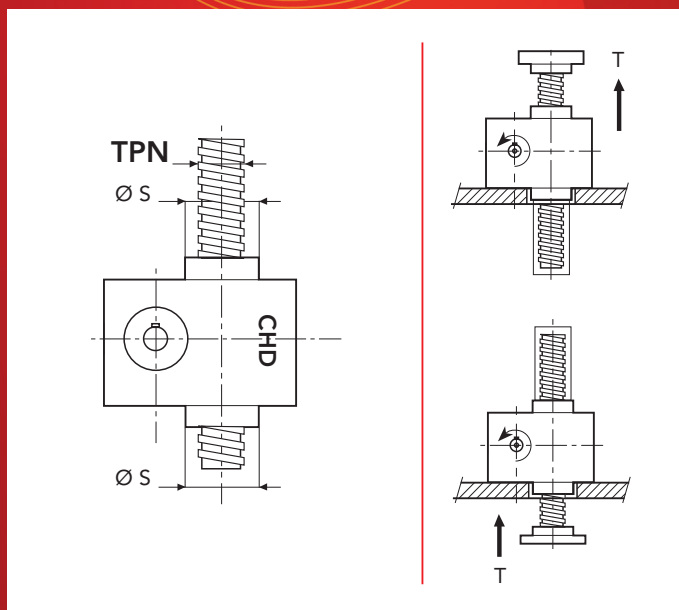
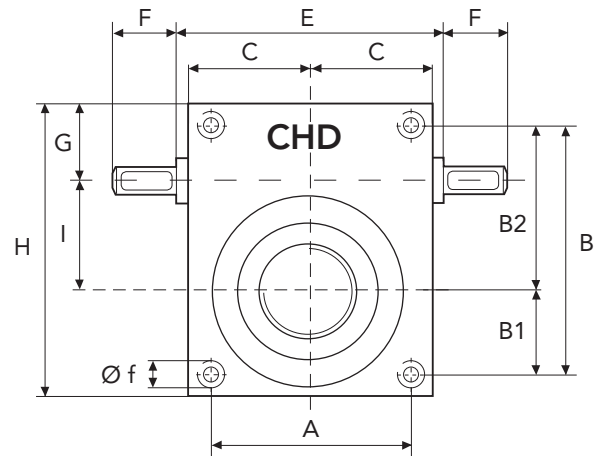
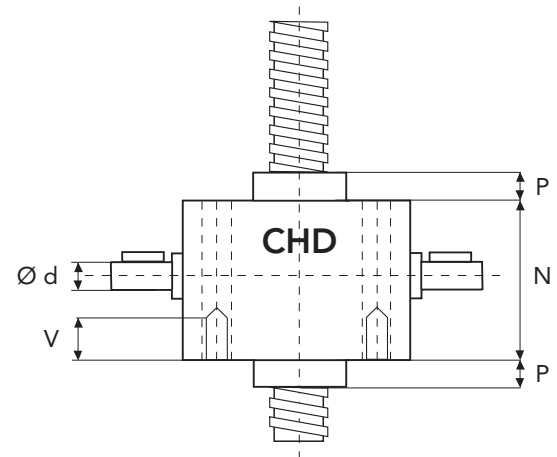


# SERIES CHD 25 TS

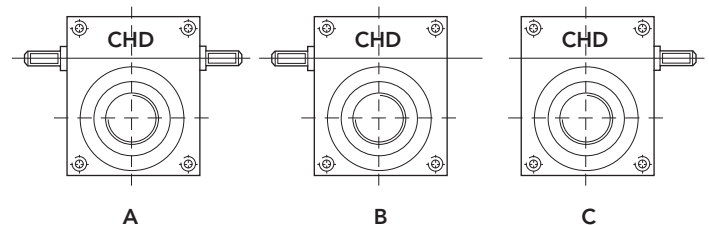
# TRANSLATING SCREW

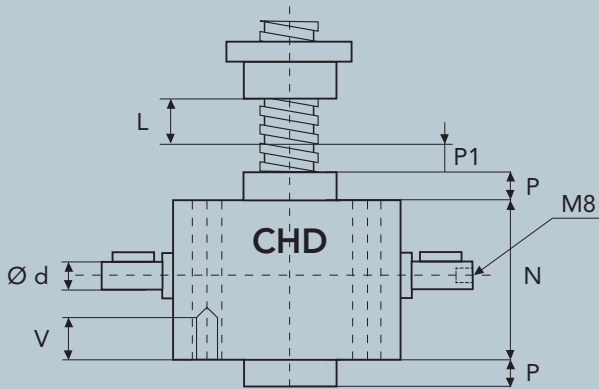
SERIES CHD 25 TS

SCREW JACK MODEL		CHD 25
LOAD	daN (Kg)	2500
TPN SCREW	DIAMETER mm PITCH mm	30 6
GEAR RATIOS	NORMAL SPEED SLOW SPEED	1/6 1/24
STROKE FOR INPUT REV.	NORMAL SPEED SLOW SPEED	1 0,25
EFFICIENCY	NORMAL SPEED SLOW SPEED	30% 24%
JACK WEIGHT (Kg)		5,7
SCREW WEIGHT TPN X 100 mm (Kg)		0,48
CASE MATERIAL		ALUMINIUM
GREASE QTY (Kg)		0,1
GREASE TYPE	AGIP GR MU EP2	
OPERATING TEMPERATURE	-5° C +80° C	

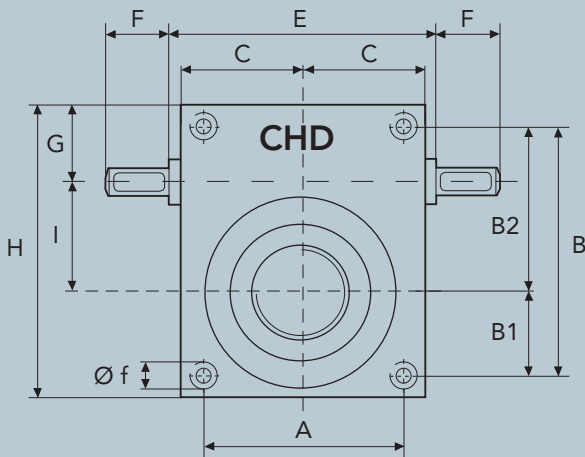


	A	B	B1	B2	C	E	F	G	H
CHD25	81	106	42	64	52,5	109	43	30	128
	I	N	P	P1	V	Ø d	Ø f	Ø s	TPN
CHD25	45	82	23	10	15	16	M10	46	30x6

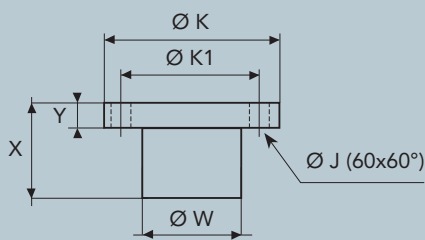




L = STROKE

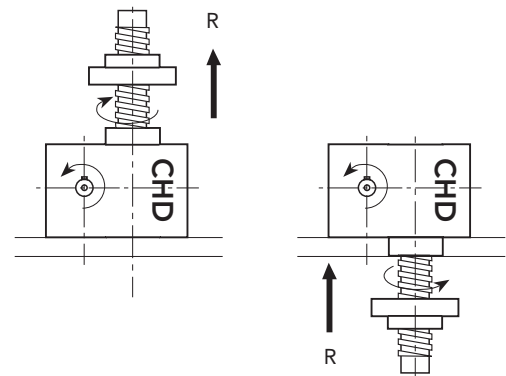
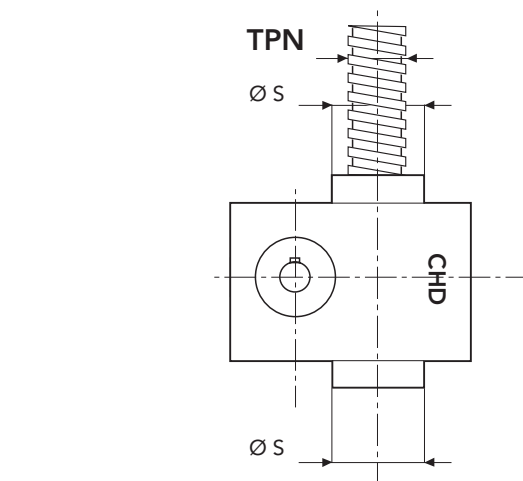


## BRONZE NUT

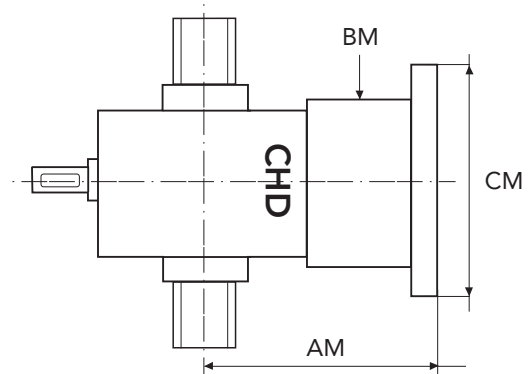


	X	Y	Ø W	Ø K	Ø K1	Ø J
CHD25	46	14	37,8	60	50	7

## CONFIGURATION

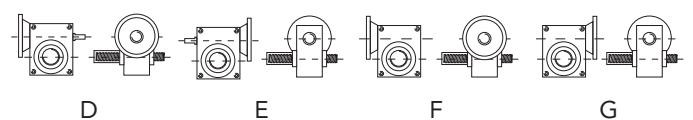


## PAM DIMENSIONS FOR BELL AND COUPLING



MOTOR	FLANGE TYPE	CM	AM	BM
GR. 71	B5	160	142,5	80
GR. 80	B5	200	157,5	
GR. 90	B5	200	157,5	

SERIES CHD 25 RS

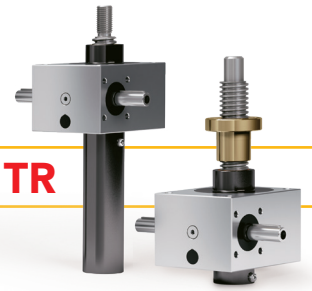




# SCREW JACK PERFORMANCE CHD 25

## CHD TR SERIES

SCREW JACKS WITH  
TRAPEZOIDAL SCREWS



**CHD 25 TR**

30 x 6

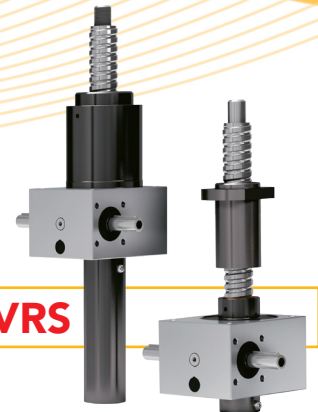
Ratio		Load [kN]		25		20		15		10		7,5		5		2,5	
		nn1 rpm	speed	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]
N	1500	25,0	2,29	14,6	1,85	11,7	1,40	8,9	0,94	6	0,72	4,6	0,50	3,2	0,28	1,8	
	1000	16,7	1,53	14,6	1,23	11,7	0,93	8,9	0,63	6	0,48	4,6	0,34	3,2	0,19	1,8	
	750	12,5	1,15	14,6	0,92	11,7	0,70	8,9	0,47	6	0,36	4,6	0,25	3,2	0,14	1,8	
	500	8,3	0,77	14,6	0,06	11,7	0,47	8,9	0,31	6	0,24	4,6	0,17	3,2	0,10	1,8	
	300	5,0	0,46	14,6	0,37	11,7	0,28	8,9	0,19	6	0,14	4,6	0,1	3,2	0,10	1,8	
	100	1,7	0,15	14,6	0,12	11,7	0,1	8,9	0,1	6	0,1	4,6	0,1	3,2	0,10	1,8	
	50	0,8	0,1	14,6	0,1	11,7	0,1	8,9	0,1	6	0,1	4,6	0,1	3,2	0,10	1,8	
L	1500	6,3	0,69	4,4	0,57	3,6	0,44	2,8	0,3	1,9	0,24	1,5	0,16	1,0	0,11	0,7	
	1000	4,2	0,46	4,4	0,38	3,6	0,29	2,8	0,2	1,9	0,16	1,5	0,10	1,0	0,1	0,7	
	750	3,1	0,35	4,4	0,28	3,6	0,22	2,8	0,15	1,9	0,12	1,5	0,1	1,0	0,1	0,7	
	500	2,1	0,23	4,4	0,19	3,6	0,15	2,8	0,1	1,9	0,1	1,5	0,1	1,0	0,1	0,7	
	300	1,3	0,14	4,4	0,11	3,6	0,1	2,8	0,1	1,9	0,1	1,5	0,1	1,0	0,1	0,7	
	100	0,4	0,1	4,4	0,1	3,6	0,1	2,8	0,1	1,9	0,1	1,5	0,1	1,0	0,1	0,7	
	50	0,2	0,1	4,4	0,1	3,6	0,1	2,8	0,1	1,9	0,1	1,5	0,1	1,0	0,1	0,7	

Duty cycle < 10%

## CHD VRS SERIES

FOR TRANSLATING SCREW  
BY INTEGRATED NUT

see dimensions pages 48/49



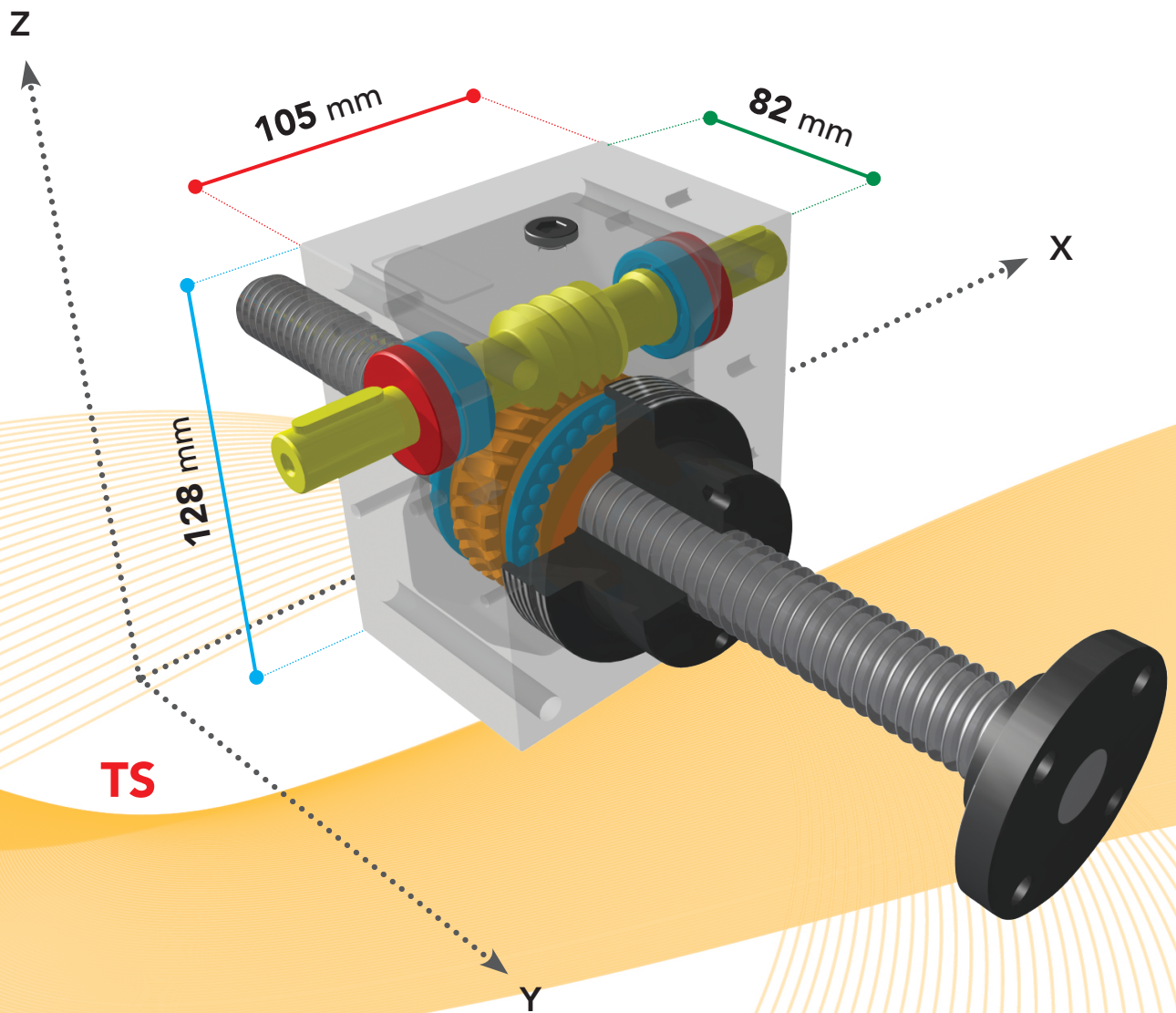
**CHD 25 VRS**

32 x 10

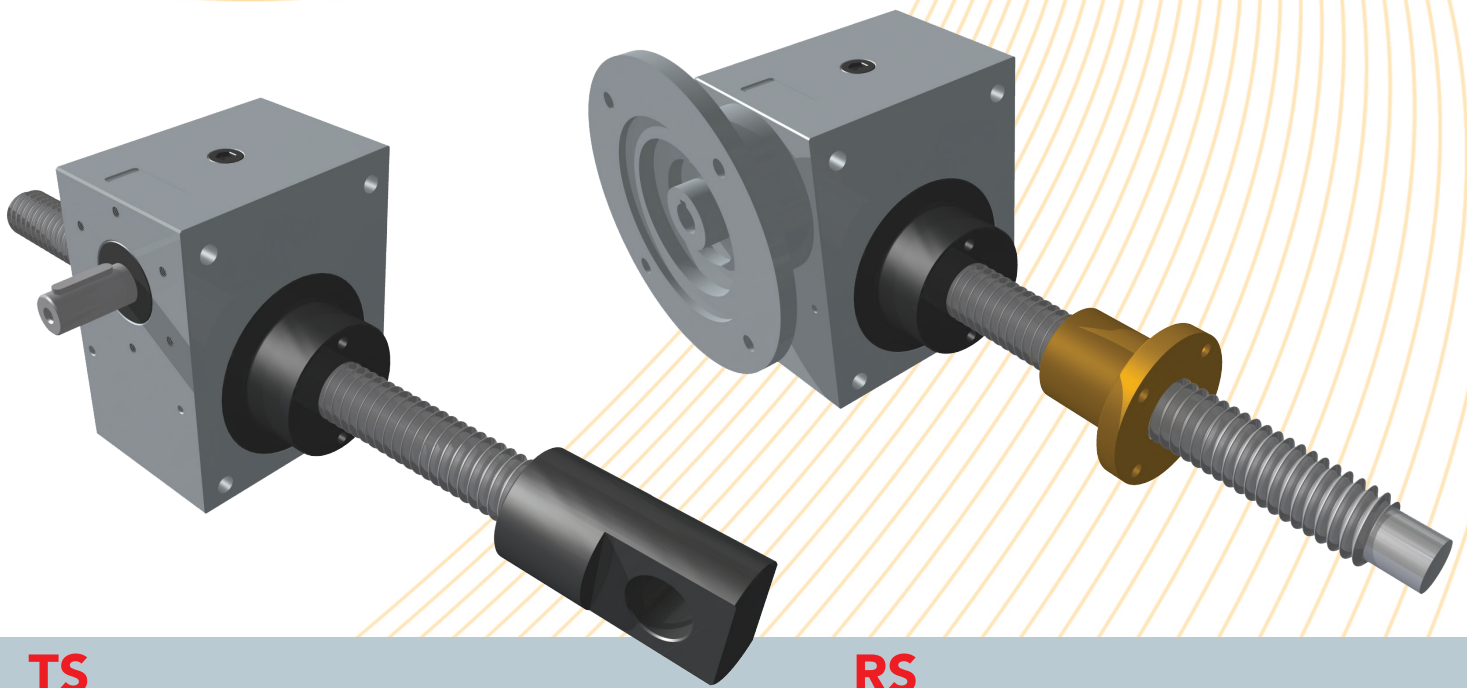
Ratio		Load [kN]		25		20		15		10		7,5		5		2,5	
		nn1 rpm	speed	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]
N	1500	41,6	1,30	8,3	1,05	6,7	0,80	5,1	0,55	3,5	0,44	2,8	0,31	2,0	0,19	1,2	
	1000	27,8	0,87	8,3	0,70	6,7	0,53	5,1	0,37	3,5	0,29	2,8	0,21	2,0	0,13	1,2	
	750	20,8	0,65	8,3	0,53	6,7	0,40	5,1	0,27	3,5	0,22	2,8	0,16	2,0	0,1	1,2	
	500	13,9	0,43	8,3	0,35	6,7	0,27	5,1	0,18	3,5	0,15	2,8	0,1	2,0	0,1	1,2	
	300	8,3	0,26	8,3	0,21	6,7	0,16	5,1	0,11	3,5	0,1	2,8	0,1	2,0	0,1	1,2	
	100	2,8	0,1	8,3	0,1	6,7	0,1	5,1	0,1	3,5	0,1	2,8	0,1	2,0	0,1	1,2	
	50	1,4	0,1	8,3	0,1	6,7	0,1	5,1	0,1	3,5	0,1	2,8	0,1	2,0	0,1	1,2	
L	1500	10,4	0,41	2,6	0,33	2,1	0,25	1,6	0,19	1,2	0,16	1	0,11	0,7	0,1	0,5	
	1000	6,9	0,27	2,6	0,22	2,1	0,17	1,6	0,13	1,2	0,1	1	0,1	0,7	0,1	0,5	
	750	5,2	0,20	2,6	0,16	2,1	0,13	1,6	0,1	1,2	0,1	1	0,1	0,7	0,1	0,5	
	500	3,5	0,14	2,6	0,11	2,1	0,1	1,6	0,1	1,2	0,1	1	0,1	0,7	0,1	0,5	
	300	2,1	0,1	2,6	0,1	2,1	0,1	1,6	0,1	1,2	0,1	1	0,1	0,7	0,1	0,5	
	100	0,7	0,1	2,6	0,1	2,1	0,1	1,6	0,1	1,2	0,1	1	0,1	0,7	0,1	0,5	
	50	0,3	0,1	2,6	0,1	2,1	0,1	1,6	0,1	1,2	0,1	1	0,1	0,7	0,1	0,5	



# CHD 25



**TS**



**TS**

**RS**



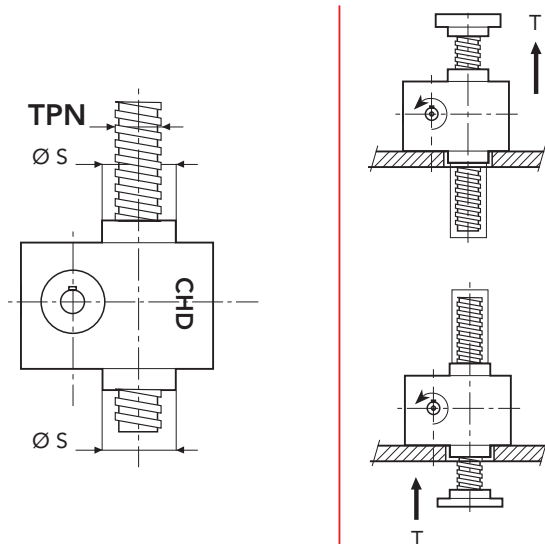
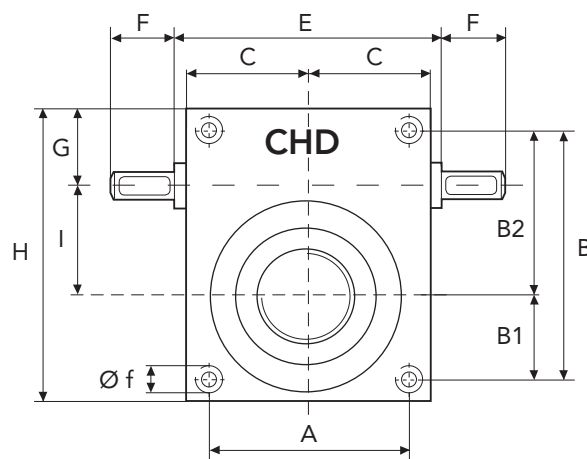
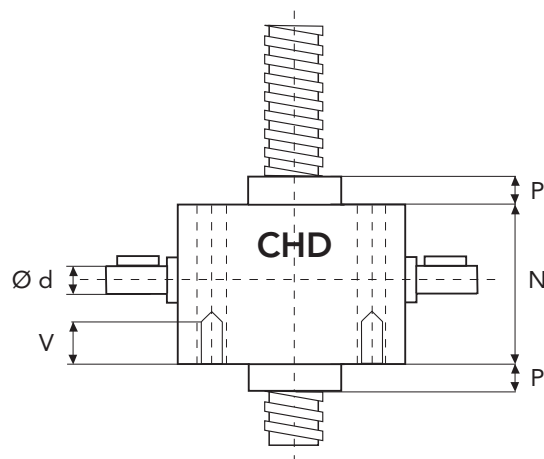


# SERIES CHD 50 TS

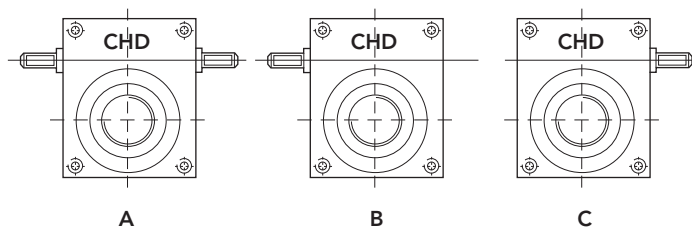
# TRANSLATING SCREW

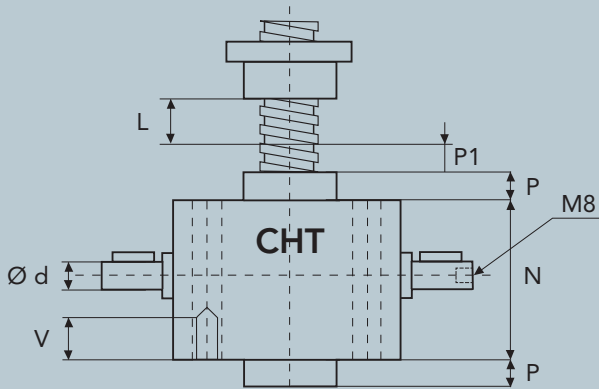
SERIES CHD 50 TS

SCREW JACK MODEL		CHD 50
LOAD	daN (Kg)	5000
TPN SCREW	DIAMETER mm PITCH mm	40 7
GEAR RATIOS	NORMAL SPEED SLOW SPEED	1/7 1/28
STROKE FOR INPUT REV.	NORMAL SPEED SLOW SPEED	1 0,25
EFFICIENCY	NORMAL SPEED SLOW SPEED	28% 24%
JACK WEIGHT (Kg)		20,3
SCREW WEIGHT TPN X 100 mm (Kg)		0,9
CASE MATERIAL		CAST IRON
GREASE QTY (Kg)		0,3
GREASE TYPE	AGIP GR MU EP2	
OPERATING TEMPERATURE	-5° C +80° C	

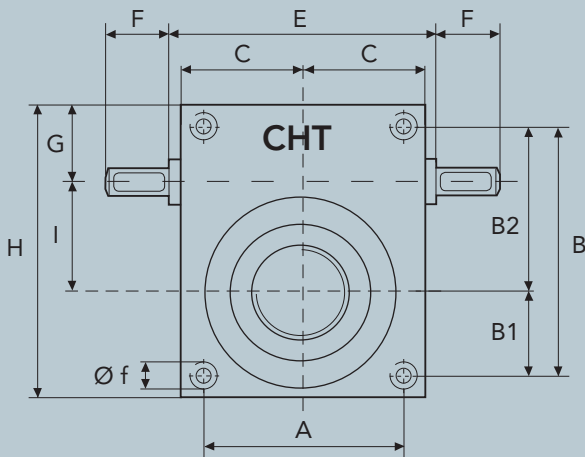


	A	B	B1	B2	C	E	F	G	H
CHD50	115	150	63	87	72,5	160	45	39	180
	I	N	P	P1	V	Ø d	Ø f	Ø s	TPN
CHD50	63	117	32	10	20	20	M12	60	40x7

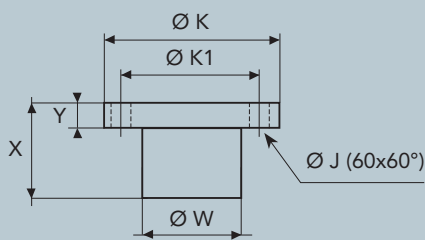




L = STROKE

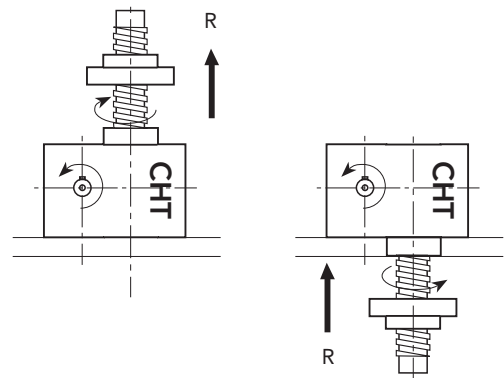
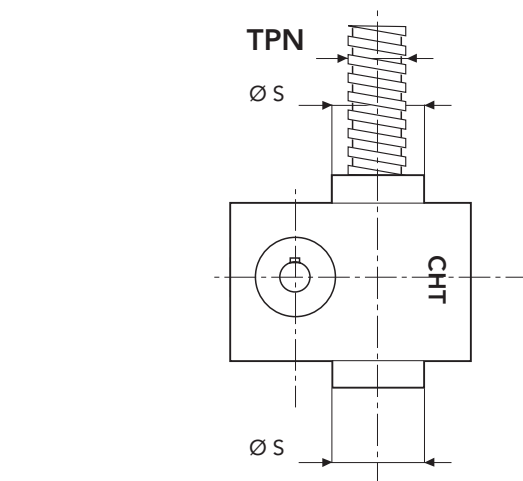


## BRONZE NUT



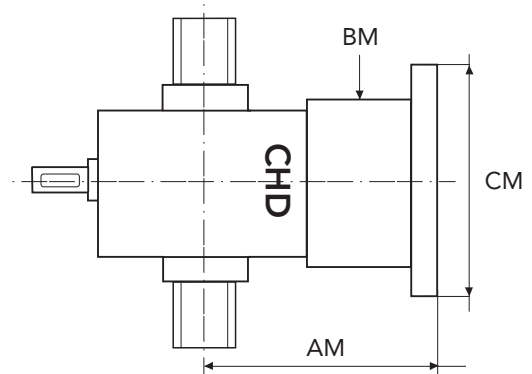
	X	Y	Ø W	Ø K	Ø K1	Ø J
CHD50	73	16	62,5	95	78	9

## CONFIGURATION

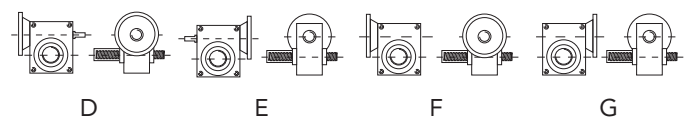


SERIES CHD 50 RS

## PAM DIMENSIONS FOR BELL AND COUPLING



MOTOR	FLANGE TYPE	CM	AM	BM
GR. 80	B5	200	184,5	90
GR. 90	B5	200	184,5	
GR. 100/112	B5	250	197,5	

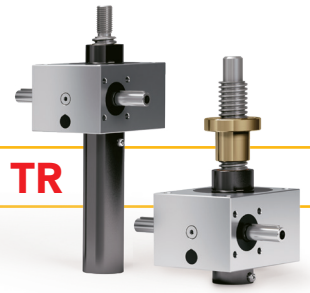




# SCREW JACK PERFORMANCE CHD 50

## CHD TR SERIES

SCREW JACKS WITH  
TRAPEZOIDAL SCREWS



**CHD 50 TR**

40 x 7

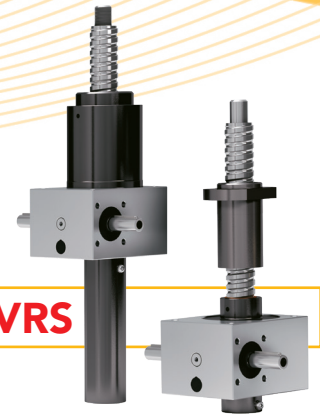
		Load [kN]		50		40		30		20		15		10		5	
		nn1 rpm	speed	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]
N	1500	25,0	4,65	29,6	3,74	23,8	2,83	18	1,93	12,3	1,48	9,4	1,02	6,5	0,57	3,6	
	1000	16,7	3,10	29,6	2,49	23,8	1,88	18	1,29	12,3	0,98	9,4	0,68	6,5	0,38	3,6	
	750	12,5	2,32	29,6	1,87	23,8	1,41	18	0,97	12,3	0,74	9,4	0,51	6,5	0,28	3,6	
	500	8,3	1,55	29,6	1,25	23,8	0,94	18	0,64	12,3	0,49	9,4	0,34	6,5	0,19	3,6	
	300	5,0	0,93	29,6	0,75	23,8	0,57	18	0,39	12,3	0,3	9,4	0,20	6,5	0,11	3,6	
	100	1,7	0,31	29,6	0,25	23,8	0,19	18	0,13	12,3	0,1	9,4	0,1	6,5	0,1	3,6	
	50	0,8	0,15	29,6	0,12	23,8	0,1	18	0,1	12,3	0,1	9,4	0,1	6,5	0,1	3,6	
L	1500	6,3	1,40	8,9	1,14	7,2	0,88	5,6	0,61	3,9	0,47	3	0,35	2,2	0,22	1,4	
	1000	4,2	0,93	8,9	0,75	7,2	0,59	5,6	0,41	3,9	0,31	3	0,22	2,2	0,14	1,4	
	750	3,1	0,70	8,9	0,57	7,2	0,44	5,6	0,31	3,9	0,24	3	0,2	2,2	0,11	1,4	
	500	2,1	0,47	8,9	0,38	7,2	0,29	5,6	0,20	3,9	0,16	3	0,12	2,2	0,1	1,4	
	300	1,3	0,28	8,9	0,23	7,2	0,18	5,6	0,12	3,9	0,1	3	0,1	2,2	0,1	1,4	
	100	0,4	0,1	8,9	0,1	7,2	0,1	5,6	0,1	3,9	0,1	3	0,1	2,2	0,1	1,4	
	50	0,2	0,1	8,9	0,1	7,2	0,1	5,6	0,1	3,9	0,1	3	0,1	2,2	0,1	1,4	

Duty cycle < 10%

## CHD VRS SERIES

FOR TRANSLATING SCREW  
BY INTEGRATED NUT

see dimensions pages 48/49



**CHD 50 VRS**

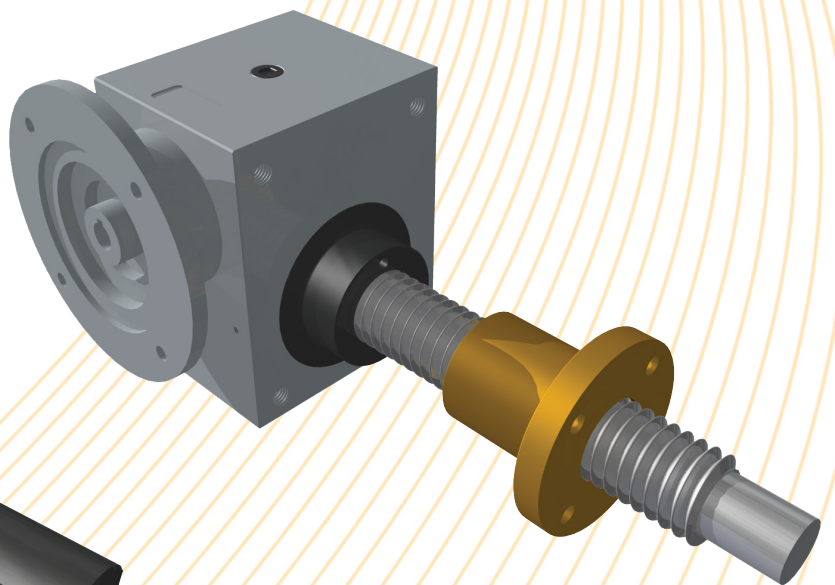
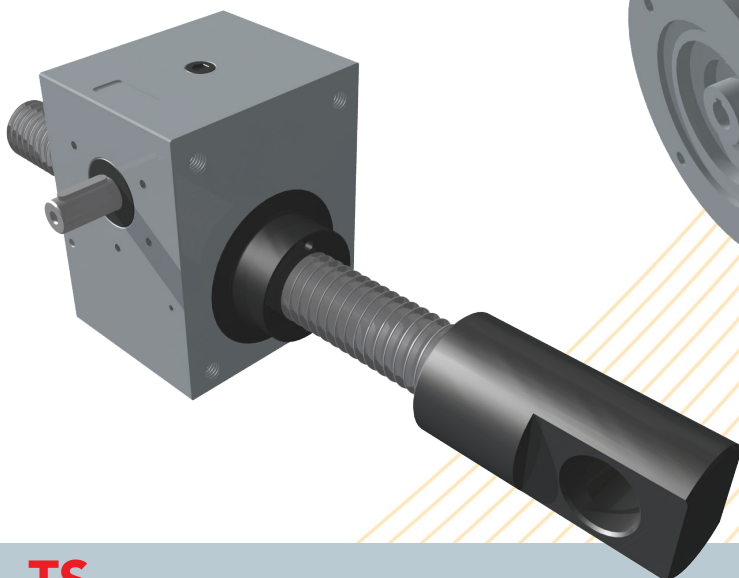
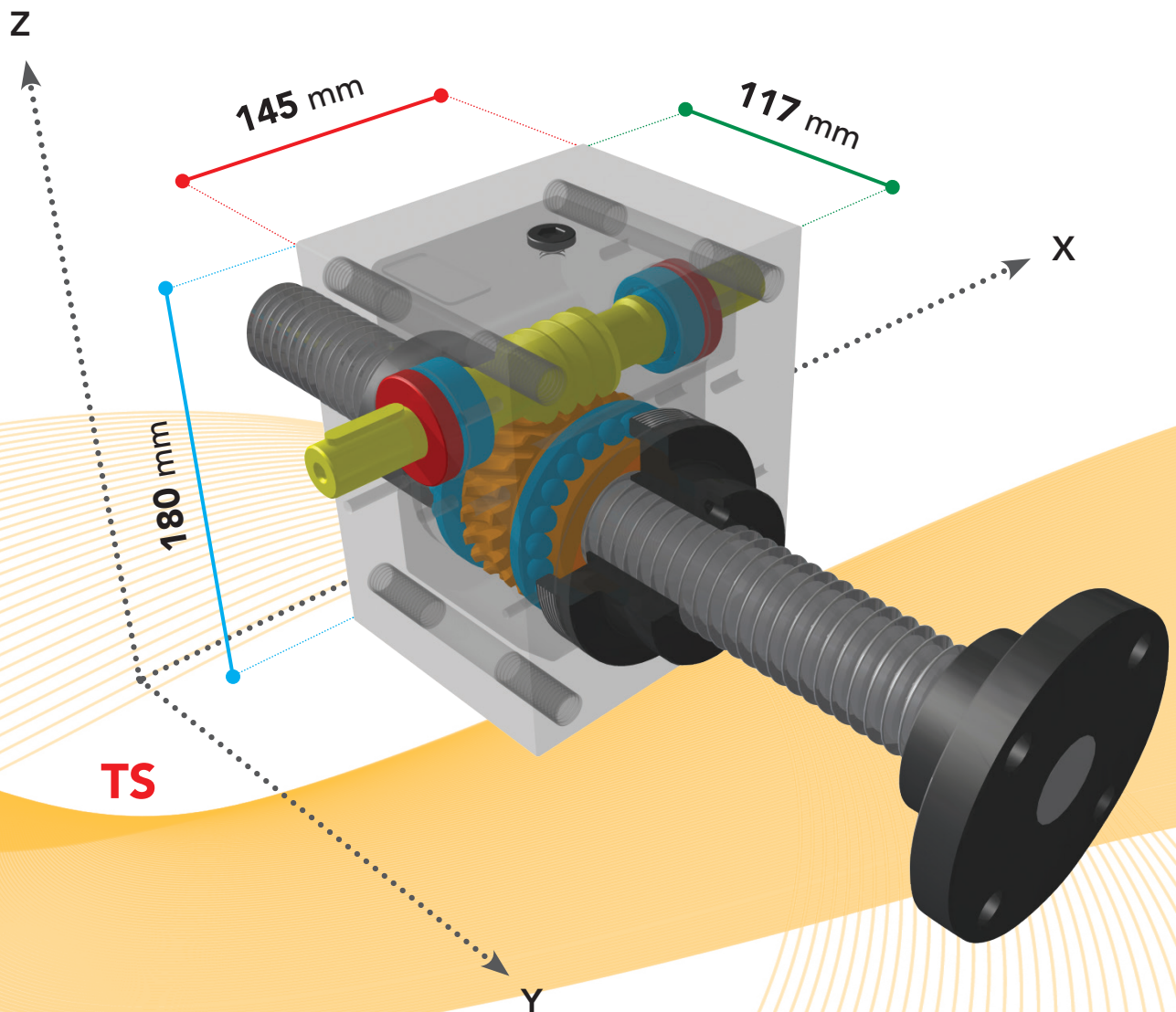
40 x 10

		Load [kN]		50		40		30		20		15		10		5	
		nn1 rpm	speed	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]	Pi [kW]	Mt [Nm]
N	1500	35,7	2,28	14,5	1,85	11,8	1,41	9	0,99	6,3	0,77	4,9	0,55	3,5	0,33	2,1	
	1000	23,8	1,52	14,5	1,24	11,8	0,94	9	0,66	6,3	0,51	4,9	0,37	3,5	0,22	2,1	
	750	17,9	1,14	14,5	0,93	11,8	0,71	9	0,49	6,3	0,38	4,9	0,27	3,5	0,16	2,1	
	500	11,9	0,76	14,5	0,62	11,8	0,47	9	0,33	6,3	0,26	4,9	0,18	3,5	0,11	2,1	
	300	7,1	0,46	14,5	0,37	11,8	0,28	9	0,20	6,3	0,15	4,9	0,11	3,5	0,1	2,1	
	100	2,4	0,15	14,5	0,12	11,8	0,1	9	0,1	6,3	0,1	4,9	0,1	3,5	0,1	2,1	
	50	1,2	0,1	14,5	0,1	11,8	0,1	9	0,1	6,3	0,1	4,9	0,1	3,5	0,1	2,1	
L	1500	8,9	0,71	4,5	0,60	3,8	0,47	3	0,35	2,2	0,27	1,7	0,20	1,3	0,16	1	
	1000	6,0	0,47	4,5	0,40	3,8	0,31	3	0,22	2,2	0,18	1,7	0,14	1,3	0,1	1	
	750	4,5	0,35	4,5	0,30	3,8	0,24	3	0,17	2,2	0,13	1,7	0,1	1,3	0,1	1	
	500	3,0	0,24	4,5	0,20	3,8	0,16	3	0,12	2,2	0,1	1,7	0,1	1,3	0,1	1	
	300	1,8	0,14	4,5	0,12	3,8	0,1	3	0,1	2,2	0,1	1,7	0,1	1,3	0,1	1	
	100	0,6	0,1	4,5	0,1	3,8	0,1	3	0,1	2,2	0,1	1,7	0,1	1,3	0,1	1	
	50	0,3	0,1	4,5	0,1	3,8	0,1	3	0,1	2,2	0,1	1,7	0,1	1,3	0,1	1	

SCREW JACK PERFORMANCE SERIES CHD 50



# CHD 50



**TS**

**RS**

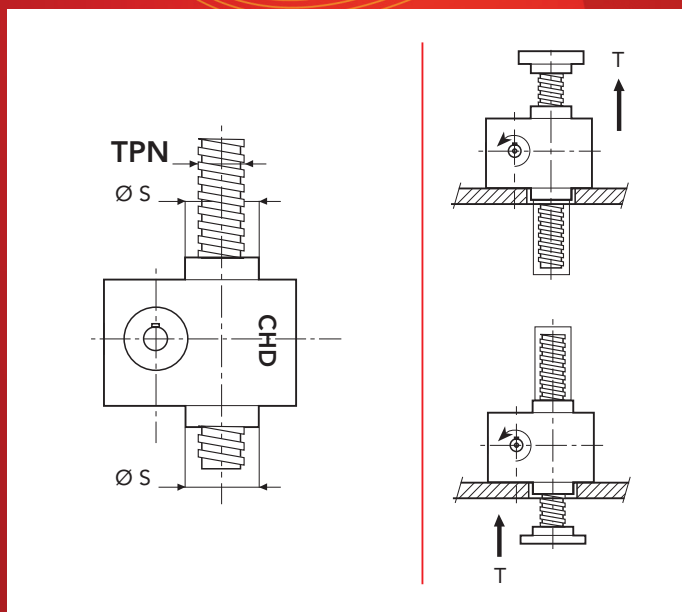
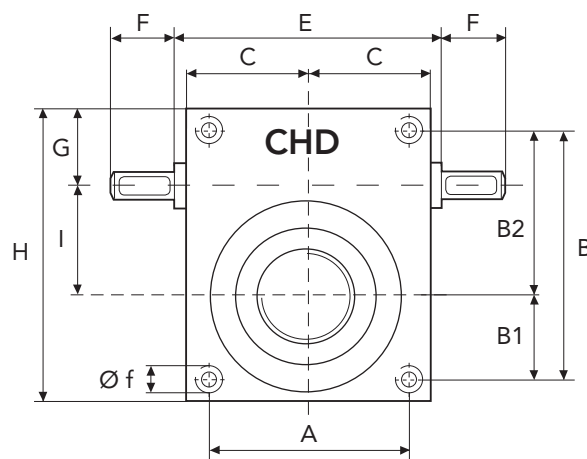
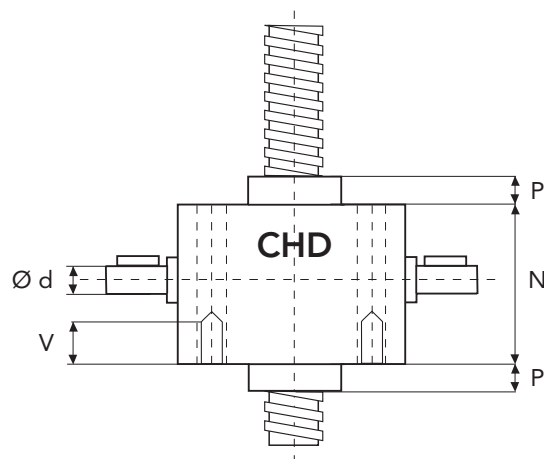


# SERIES CHD 100 TS

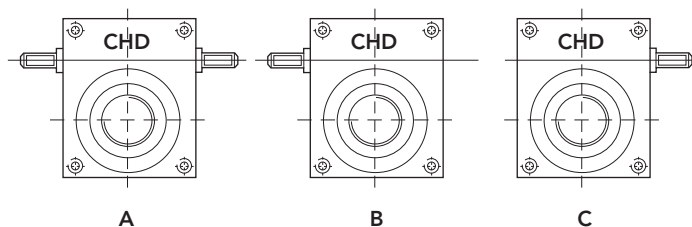
# TRANSLATING SCREW

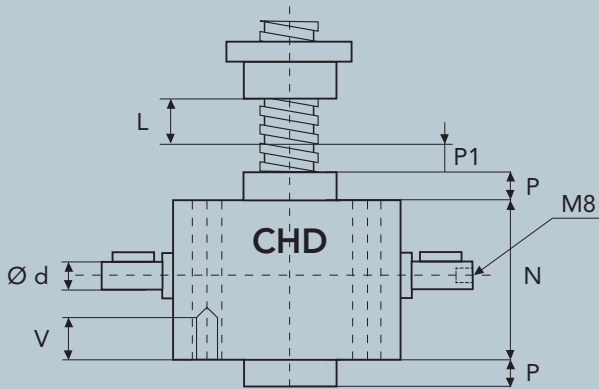
SERIES CHD 100 TS

SCREW JACK MODEL		CHD 100
LOAD	daN (Kg)	10000
TPN SCREW	DIAMETER mm PITCH mm	55 9
GEAR RATIOS	NORMAL SPEED SLOW SPEED	1/9 1/36
STROKE FOR INPUT REV.	NORMAL SPEED SLOW SPEED	1 0,25
EFFICIENCY	NORMAL SPEED SLOW SPEED	24% 20%
JACK WEIGHT (Kg)		37,4
SCREW WEIGHT TPN X 100 mm (Kg)		1,7
CASE MATERIAL		CAST IRON
GREASE QTY (Kg)		0,4
GREASE TYPE	AGIP GR MU EP2	
OPERATING TEMPERATURE	-5° C +80° C	

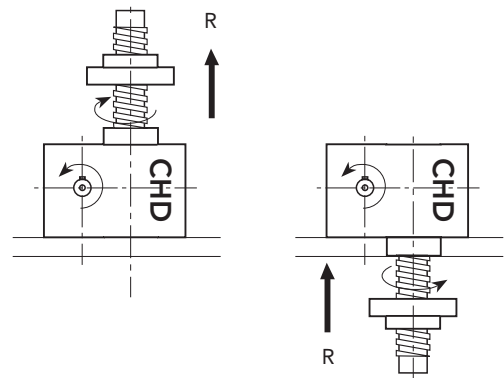
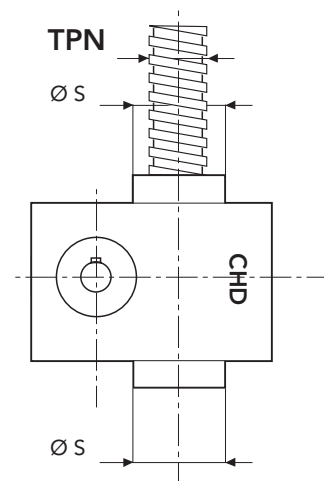
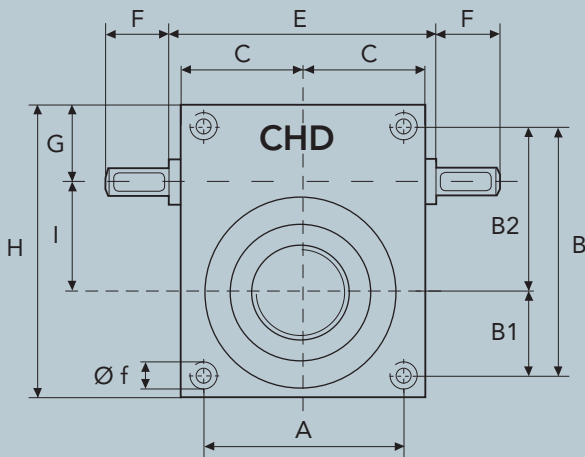


	A	B	B1	B2	C	E	F	G	H
CHD100	131	166	66	100	82,5	170	65	46	200
	I	N	P	P1	V	Ø d	Ø f	Ø s	TPN
CHD100	71	160	40	10	30	24	M20	85	55x9



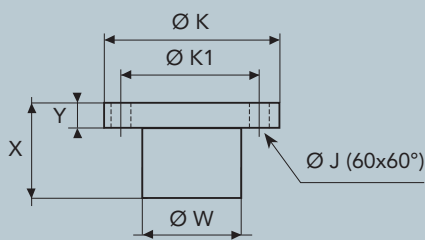


L = STROKE

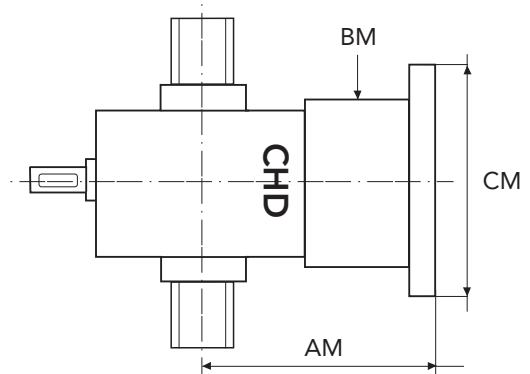


SERIES CHD 100 RS

## BRONZE NUT



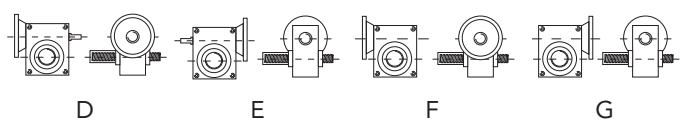
## PAM DIMENSIONS FOR BELL AND COUPLING



	X	Y	Ø W	Ø K	Ø K1	Ø J
CHD100	97	18	71,8	110	90	11

MOTOR	FLANGE TYPE	CM	AM	BM
GR. 100/112	B5	250	222,5	100
GR. 132	B5	300	257,5	

## CONFIGURATION



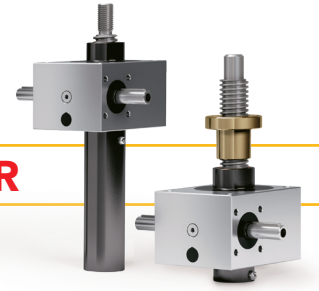


# SCREW JACK PERFORMANCE CHD 100

SCREW JACK PERFORMANCE SERIES CHD 100

## CHD TR SERIES

SCREW JACKS WITH  
TRAPEZOIDAL SCREWS



**CHD TR**

55 x 9

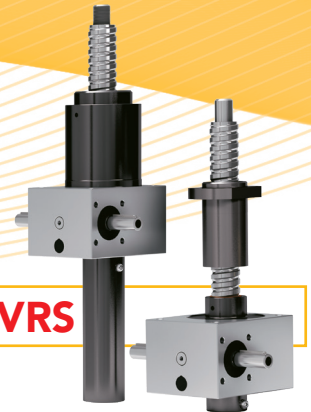
Ratio		Load [kN]		100		80		60		40		20		10		5	
		nn1 rpm	speed	Pi	Mt	Pi	Mt	Pi	Mt	Pi	Mt	Pi	Mt	Pi	Mt	Pi	Mt
				[kW]	[Nm]	[kW]	[Nm]	[kW]	[Nm]	[kW]	[Nm]	[kW]	[Nm]	[kW]	[Nm]	[kW]	[Nm]
N	1500	25,0	10,72	68,3	8,62	54,9	6,53	41,6	4,45	28,3	2,36	15	1,30	8,3	0,79	5,0	
	1000	16,7	7,14	68,3	5,75	54,9	4,36	41,6	2,96	28,3	1,57	15	0,87	8,3	0,52	5,0	
	750	12,5	5,36	68,3	4,3	54,9	3,27	41,6	2,22	28,3	1,18	15	0,65	8,3	0,39	5,0	
	500	8,3	3,57	68,3	2,9	54,9	2,18	41,6	1,48	28,3	0,79	15	0,43	8,3	0,26	5,0	
	300	5,0	2,14	68,3	1,7	54,9	1,31	41,6	0,90	28,3	0,47	15	0,26	8,3	0,16	5,0	
	100	1,7	0,71	68,3	0,57	54,9	0,44	41,6	0,30	28,3	0,16	15	0,1	8,3	0,1	5,0	
	50	0,8	0,357	68,3	0,29	54,9	0,22	41,6	0,15	28,3	0,1	15	0,1	8,3	0,1	5,0	
L	1500	6,3	3,3	21,2	2,70	17,2	2,10	13,1	1,41	9	0,79	5,0	0,47	3,0	0,31	2,0	
	1000	4,2	2,2	21,2	1,80	17,2	1,37	13,1	0,94	9	0,52	5,0	0,31	3,0	0,21	2,0	
	750	3,1	1,6	21,2	1,35	17,2	1,00	13,1	0,71	9	0,39	5,0	0,2	3,0	0,16	2,0	
	500	2,1	1,1	21,2	0,90	17,2	0,70	13,1	0,47	9	0,26	5,0	0,16	3,0	0,1	2,0	
	300	1,3	0,66	21,2	0,54	17,2	0,41	13,1	0,28	9	0,16	5,0	0,1	3,0	0,1	2,0	
	100	0,4	0,22	21,2	0,18	17,2	0,14	13,1	0,1	9	0,1	5,0	0,1	3,0	0,1	2,0	
	50	0,2	0,11	21,2	0,1	17,2	0,1	13,1	0,1	9	0,1	5,0	0,1	3,0	0,1	2,0	

Only static load permissible

## CHD VRS SERIES

FOR TRANSLATING SCREW  
BY INTEGRATED NUT

see dimensions pages 48/49



**CHD 100 VRS**

50 x 10

Ratio		Load [kN]		100		80		60		40		20		10		5	
		nn1 rpm	speed	Pi	Mt	Pi	Mt	Pi	Mt	Pi	Mt	Pi	Mt	Pi	Mt	Pi	Mt
				[kW]	[Nm]	[kW]	[Nm]	[kW]	[Nm]	[kW]	[Nm]	[kW]	[Nm]	[kW]	[Nm]	[kW]	[Nm]
N	1500	27,8	3,62	23	2,95	18,8	2,28	14,5	1,6	10,2	0,94	6	0,60	3,8	0,42	2,7	
	1000	18,5	2,41	23	1,97	18,8	1,52	14,5	1,1	10,2	0,63	6	0,40	3,8	0,28	2,7	
	750	13,9	1,81	23	1,47	18,8	1,14	14,5	0,8	10,2	0,47	6	0,30	3,8	0,21	2,7	
	500	9,2	1,21	23	0,98	18,8	0,76	14,5	0,53	10,2	0,31	6	0,20	3,8	0,14	2,7	
	300	5,5	0,72	23	0,59	18,8	0,46	14,5	0,32	10,2	0,19	6	0,12	3,8	0,1	2,7	
	100	1,8	0,24	23	0,2	18,8	0,15	14,5	0,11	10,2	0,1	6	0,1	3,8	0,1	2,7	
	50	0,9	0,12	23	0,1	18,8	0,1	14,5	0,1	10,2	0,1	6	0,1	3,8	0,1	2,7	
L	1500	6,9	1,18	7,5	0,97	6,2	0,77	4,9	0,57	3,6	0,36	2,3	0,27	1,7	0,20	1,3	
	1000	4,6	0,79	7,5	0,65	6,2	0,51	4,9	0,38	3,6	0,24	2,3	0,18	1,7	0,14	1,3	
	750	3,4	0,59	7,5	0,49	6,2	0,38	4,9	0,28	3,6	0,18	2,3	0,13	1,7	0,1	1,3	
	500	2,3	0,39	7,5	0,32	6,2	0,26	4,9	0,19	3,6	0,12	2,3	0,1	1,7	0,1	1,3	
	300	1,3	0,24	7,5	0,19	6,2	0,15	4,9	0,11	3,6	0,1	2,3	0,1	1,7	0,1	1,3	
	100	0,5	0,1	7,5	0,1	6,2	0,1	4,9	0,1	3,6	0,1	2,3	0,1	1,7	0,1	1,3	
	50	0,2	0,1	7,5	0,1	6,2	0,1	4,9	0,1	3,6	0,1	2,3	0,1	1,7	0,1	1,3	

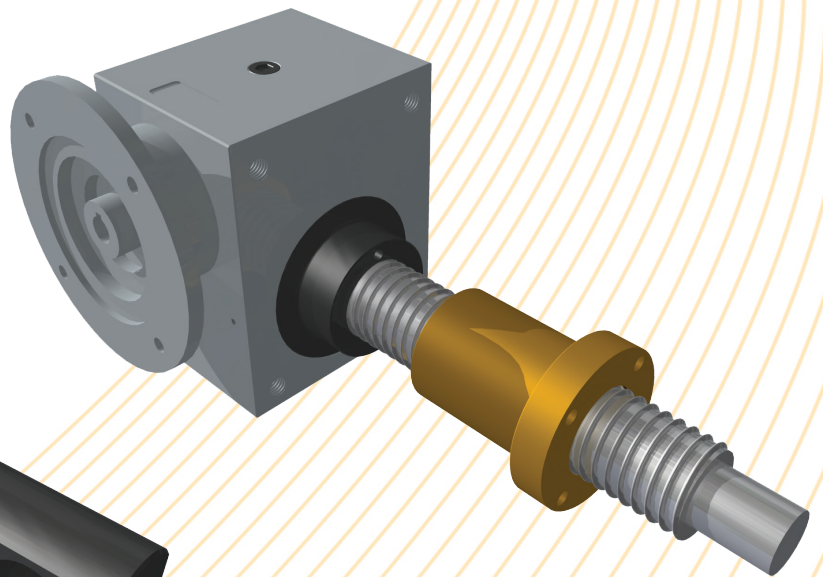
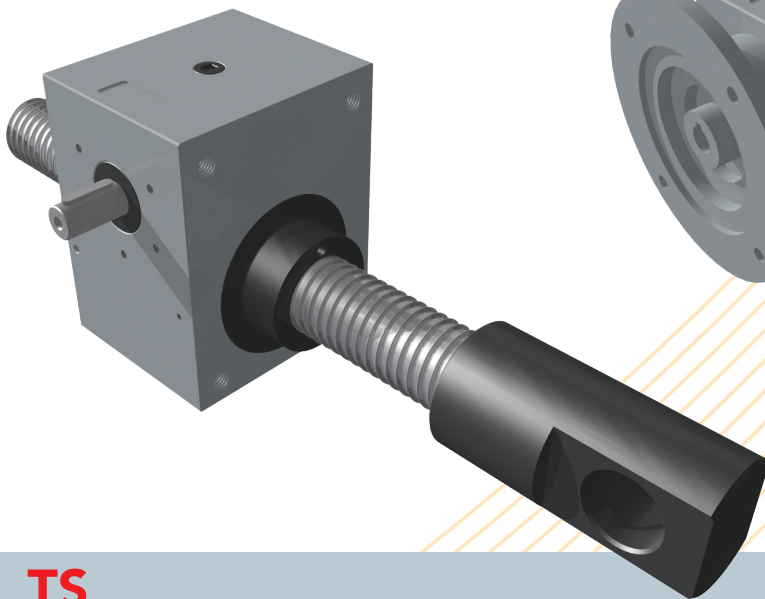
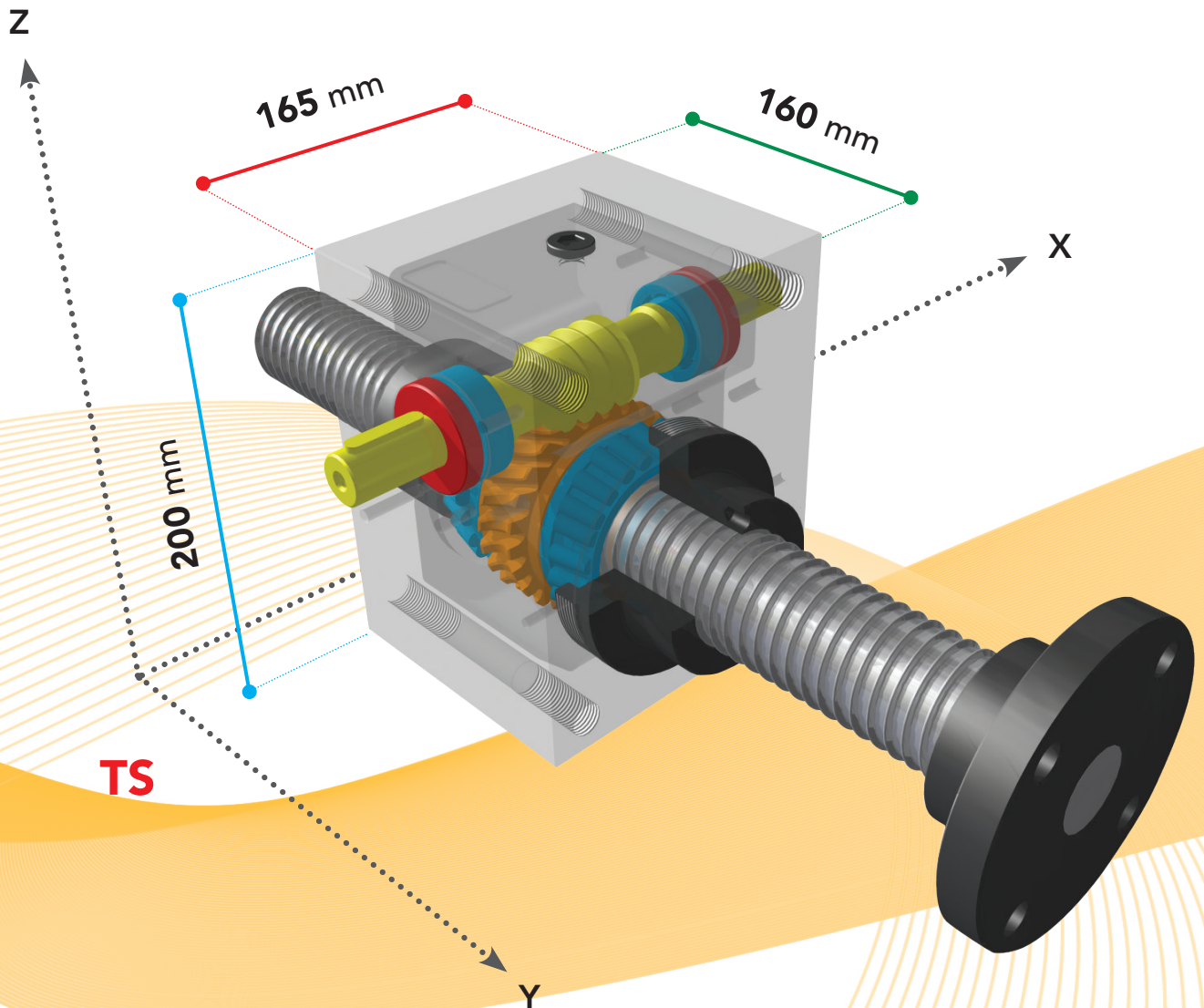
**WARNING!:** The values shown in the performance tables of versions with recirculating ball screws show input power and torque in relation to the load to be moved.

The dynamic load limits for the various types of standard nuts are shown in the table on pages 48/49.

On request, nuts with higher load ratings can be used.  
For further information, contact our technical-sales service.



# CHD 100



**TS**

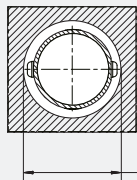
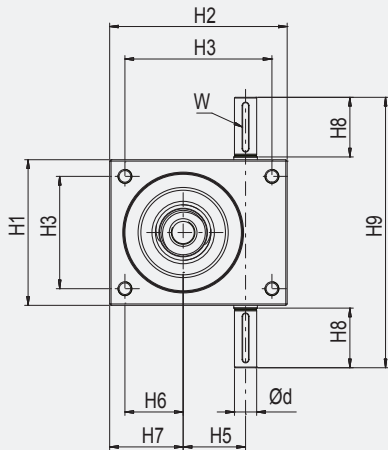
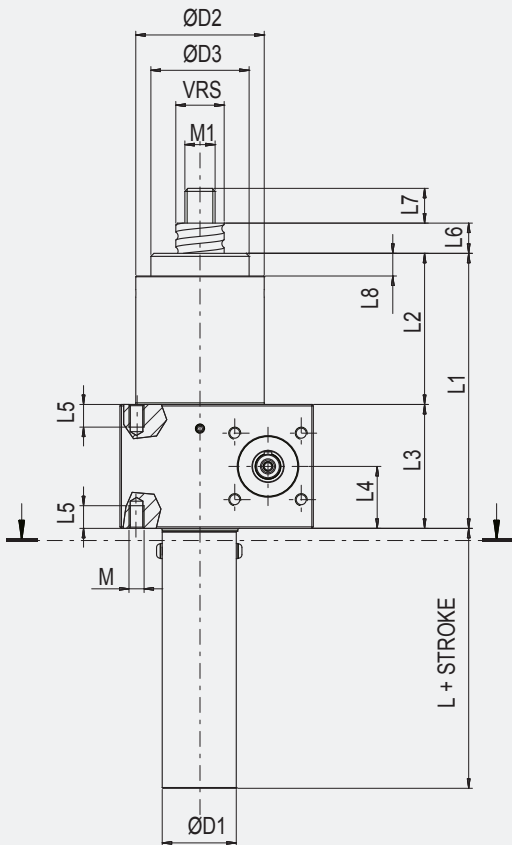
**RS**





# TREVELLING VERSION WITH BALL SCREW

## VERSION TR



CHD 2,5	Ø 36
CHD 5	Ø 40
CHD 10	Ø 46
CHD 25	Ø 60
CHD 50	Ø 79
CHD 100	Ø 104

	CHD 25	CHD 50	CHD 100
Ø d	Ø 16	Ø 20	Ø 24
Ø D1	Ø 50	Ø 65	Ø 90
Ø D2	Ø 65	Ø 85	Ø 95
Ø D3	Ø 85	Ø 115	Ø 130
H1	105	145	165
H2	128	180	200
H3	81	115	131
H4	106	150	166
H5	45	63	71
H6	42	63	66
H7	53	78	83
H8	43	45	65
H9	195	240	300
L	95	108	132
L1	182	217	260
L2	100	100	100
L3	82	117	160
L4	41	58.5	80
L5	15	20	30
L6	20	20	20
L7	22	29	48
L8	15	15	15
M	M10	M12	M20
M1	M20	M30	M36
W	5X5X36	6X6X36	8X7X56
VRS	32X10	40X10	50X10

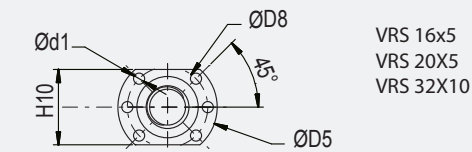
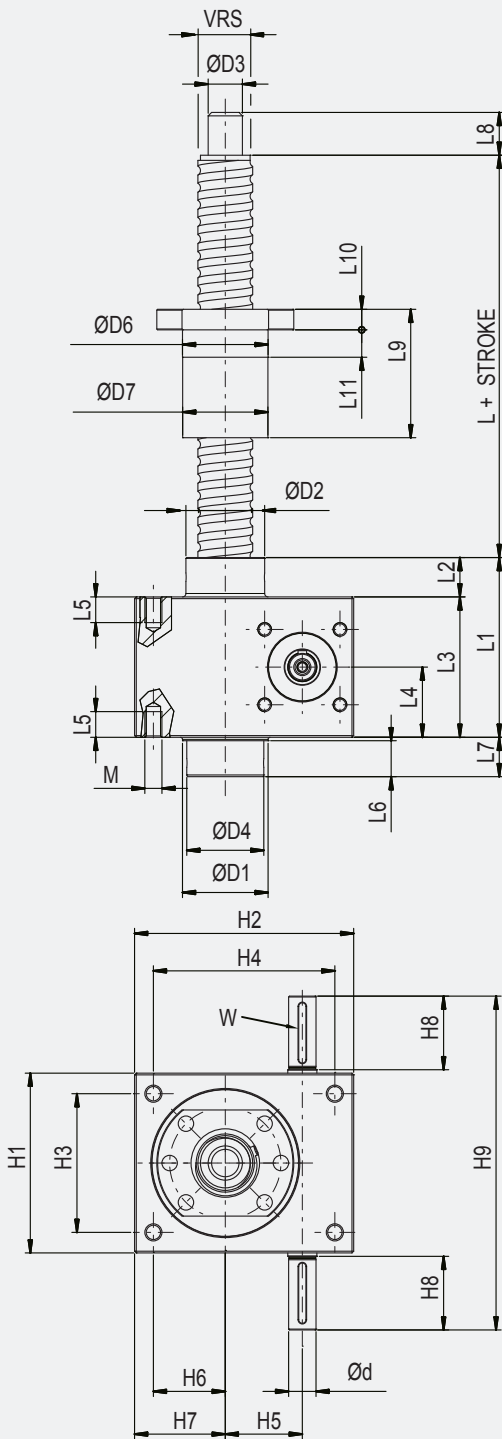
### Max admitted loads on ball screw standard nuts VRS

Type	Co [daN]	Ca [daN]
VRS 32X10	5876	5254
VRS 40X10	9377	6611
VRS 50X10	12714	7050

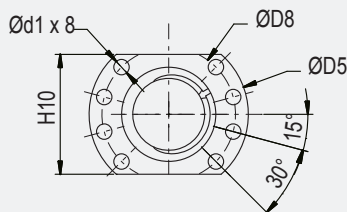


# ROTATING VERSION WITH BALL SCREW

## VERSION RS



VRS 16x5  
VRS 20x5  
VRS 32x10



VRS 40x10  
VRS 50x10

	CHD 2.5	CHD 5	CHD 10	CHD 25	CHD 50	CHD 100
Ø d	Ø 9	Ø 10	Ø 14	Ø 16	Ø 20	Ø 24
Ø d1	Ø 5.5	Ø 5.5	Ø 6.6	Ø 9	Ø 9	Ø 11
Ø D1	Ø 28	Ø 32	Ø 38	Ø 50	Ø 60	Ø 84
Ø D2	Ø 26	Ø 30	Ø 39	Ø 46	Ø 60	Ø 85
Ø D3	Ø 10	Ø 12	Ø 15	Ø 20	Ø 25	Ø 40
Ø D4	Ø 25	Ø 28	Ø 34	Ø 45	Ø 60	Ø 110
Ø D5	Ø 48	Ø 48	Ø 58	Ø 80	Ø 98	Ø 110
Ø D6	Ø 28	Ø 28	Ø 36	Ø 50	Ø 63	Ø 75
Ø D7	Ø 27,8	Ø 27,8	Ø 35,8	Ø 49,8	Ø 62,8	Ø 74,8
Ø D8	Ø 38	Ø 38	Ø 47	Ø 65	Ø 78	Ø 93
H1	50	72	85	105	145	165
H2	60	78	98	128	180	200
H3	38	52	63	81	115	131
H4	48	60	78	106	150	166
H5	20	25	32	45	63	71
H6	16	21	29	42	63	66
H7	22	30	39	53	78	83
H8	20	22.5	25	43	45	65
H9	92	120	140	195	240	300
H10	40	40	44	62	70	85
L	80	80	85	115	130	140
L1	62	74	93	105	149	200
L2	12	12	18	23	32	40
L3	50	62	75	82	117	160
L4	25	31	37.5	41	58.5	80
L5	12	13	15	15	20	30
L6	11	14	17	21	32	32
L7	13	16	19	23	32	32
L8	12	15	20	25	30	45
L9	38	38	43	75	88	100
L10	10	10	10	12	16	16
L11	10	10	10	16	14	20
M	M6	M8	M8	M10	M12	M20
W	3X3X14	3X3X18	5X5X20	5X5X36	6X6X36	8X7X56
VRS	16X5	16X5	20X5	32X10	40X10	50X10

### Max admitted loads on ball screw standard nuts VRS

Type	Co [daN]	Ca [daN]
VRS 16X5	1191	1160
VRS 20X5	1985	1525
VRS 32X10	5876	5254
VRS 40X10	9377	6611
VRS 50X10	12714	7050

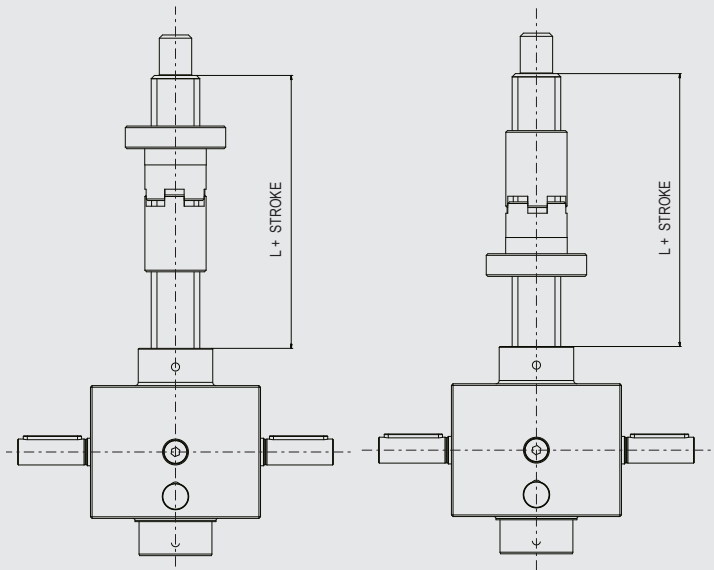


## SAFETY NUT

The safety nut is used to support the load in case of wear of the main nut. Allows thread wear to be monitored to avoid exceeding the permissible wear level and situations of thread collapse.

### SN-R SAFETY NUT FOR ROTATING VERSION

In the rotating version the safety nut works in one direction only: specify compression or traction load at the time of the order.

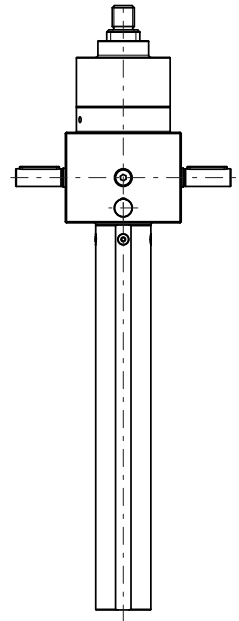


Compression-Pushing load

Traction-Pulling load

### SN-T SAFETY NUT FOR TRAVELLING VERSION

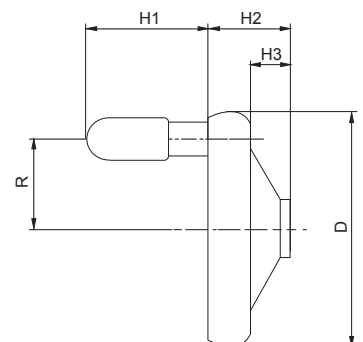
In the travelling version the safety nut works in both directions and it is not necessary to indicate the type of load.



Size	L
CHD 2.5	88
CHD 5	88
CHD 10	102
CHD 25	110
CHD 50	155
CHD 100	199

## H HANDWHEEL

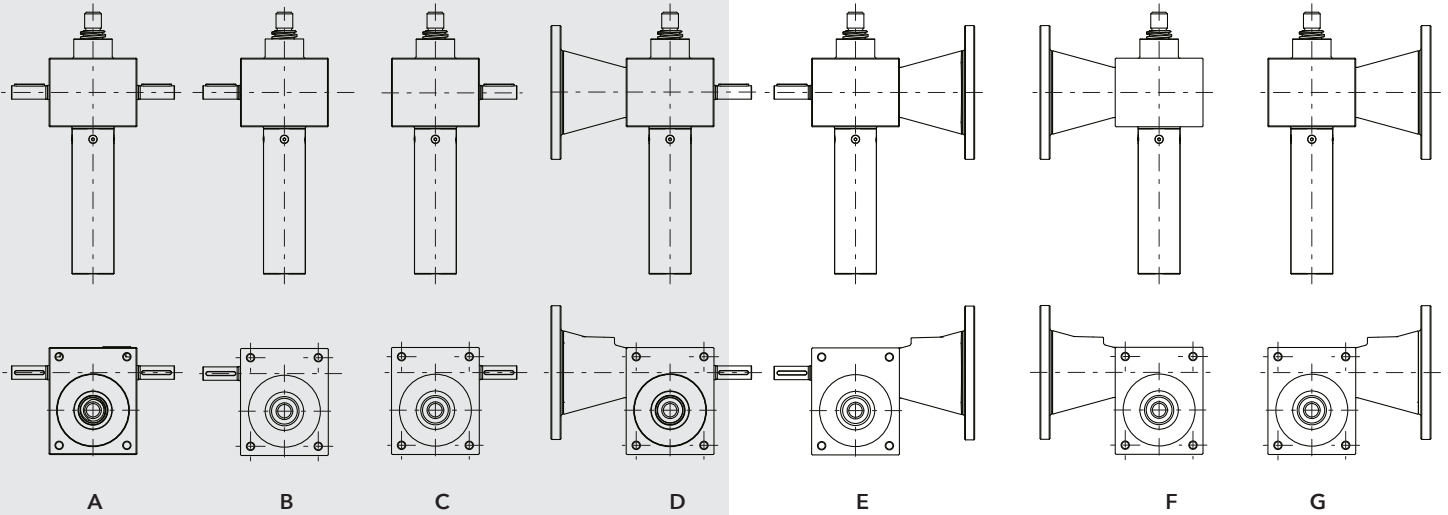
Type	D	R	H1	H2	H3	kg
CHD 2.5	Ø 80	29	45	35	17	0,104
CHD 5	Ø 100	37	60	37	17	0,145
CHD 10	Ø 125	48	65	44	22	0,240
CHD 25	Ø 160	65	73	51	27	0,399
CHD 50	Ø 200	84	80	61	34	0,525
CHD 100	Ø 250	103	90	69	38	0,888





# DRIVE FLANGE AND SHAFTS ORIENTATION

- A - Double extension screw standard version
- B - Single spindle screw Lh assembly
- C - Single spindle screw Rh assembly
- D - Double extension screw + drive flange and coupling Lh assembly
- E - Double extension screw + drive flange and coupling Rh assembly
- F - Single spindle screw + drive flange and coupling Lh assembly
- G - Single spindle screw + drive flange and coupling Rh assembly

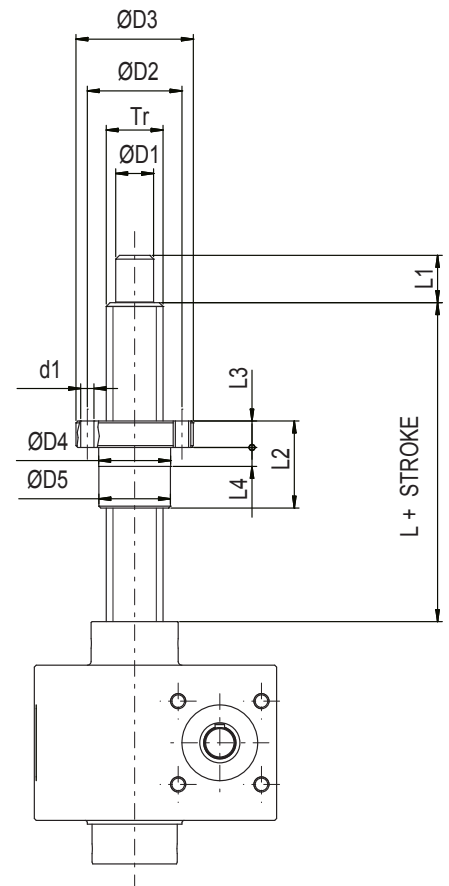


## IS OVERSIZED SPINDLE CHD-R

	CHD 2.5	CHD 5	CHD 10	CHD 25	CHD 50	CHD 100
Ød1	Ø 6	Ø 7	Ø 7	Ø 9	Ø 11	Ø 17
ØD1	Ø 12	Ø 15	Ø 20	Ø 25	Ø 40	Ø 55
ØD2	Ø 38	Ø 45	Ø 50	Ø 78	Ø 90	Ø 140
ØD3	Ø 48	Ø 55	Ø 60	Ø 95	Ø 110	Ø 180
ØD4	Ø 28	Ø 32	Ø 38	Ø 63	Ø 72	Ø 95
ØD5	Ø 27,8	Ø 31,8	Ø 37,8	Ø 63,8	Ø 71,8	Ø 94,8
L	64	64	66	95	117	Ø 130
L1	15	20	25	30	45	Ø 70
L2	44	44	46	73	97	Ø 100
L3	12	12	14	16	18	Ø 30
L4	8	8	10	12	30	Ø 30
Tr	18X4	20X4	30X6	40X7	55X9	70X10

In applications subject to buckling load where it is not possible to obtain the desired stroke, oversized spindles can be installed as an alternative to selecting a larger size, exclusively for rotating version "R".

For further information contact our engineering-commercial department.





# ACCESSORIES

ACCESSORIES		DESCRIPTION	Can be used on model		Page
			TRAVELLING	ROTATING	
	<b>PE</b>	Pivot bearing end	✓	✗	54
	<b>FF</b>	Fixing Flanged	✓	✗	54
	<b>RE</b>	Rod end	✓	✗	55
	<b>FE</b>	Fork end	✓	✗	54
	<b>AD</b>	Antirotation Device	✓	✗	55
	<b>EP</b>	Escape protection	✓	✗	55
	<b>B</b>	Bellows	✓	✓	59
	<b>FS</b>	Fastening strips	✓	✓	56
	<b>PBP</b>	Pivot bearing plate	✓	✓	56
	<b>H</b>	Handwheel	✓	✓	50
	<b>SN-R</b>	Safety Nuts	✗	✓	50

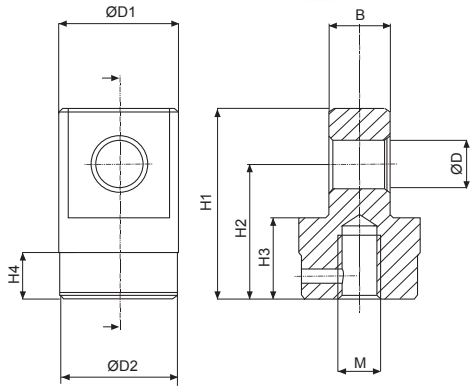


# ACCESSORIES

ACCESSORIES		DESCRIPTION	Can be used on model		Page
			TRAVELLING	ROTATING	
	<b>SN-T</b>	Safety Nuts	✓	✗	50
		Motor flange	✓	✓	51
	<b>IS</b>	Increased size screw	✓	✓	51
	<b>SSV</b>	Stainless steel version	✓	✓	-
	<b>VS</b>	Viton seals	✓	✓	-
	<b>SS</b>	Silicone seals	✓	✓	-
	<b>MS</b>	Mechanical limit switches	✓	✗	57
	<b>MLS</b>	Magnetic limit switches	✓	✗	58
	<b>PLS</b>	Proximity (Inductive) sensors	✓	✗	57
		Transmission shafts	✓	✓	61
		Coupling	✓	✓	62



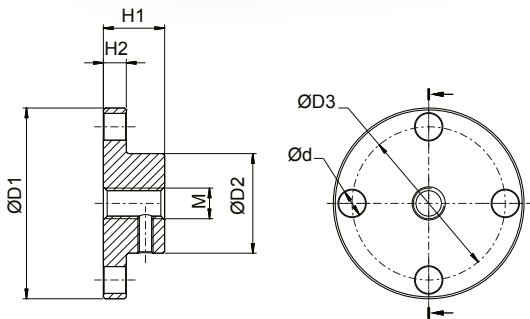
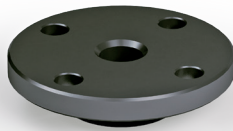
# ACCESSORIES



## PE PIVOT BEARING END

Size	D1	D2	$\frac{D}{H8}$	H1	H2	H3	H4	$\frac{B}{h10}$	M	Kg
CHD 2.5	Ø 30	Ø 26	Ø 14	51	36	21	15	15	M8x16	0.17
CHD 5	Ø 30	Ø 30	Ø 14	55	40	25	-	15		0.20
CHD 10	Ø 40	Ø 39	Ø 16	63	45	27	15	20		0.42
CHD 25	Ø 45	Ø 45	Ø 24	78	53	33	-	30		0.68
CHD 50	Ø 60	Ø 60	Ø 32	105	70	40	-	35		1.49
CHD 100	Ø 75	Ø 85	Ø 35	110	75	35	15	45		2.51

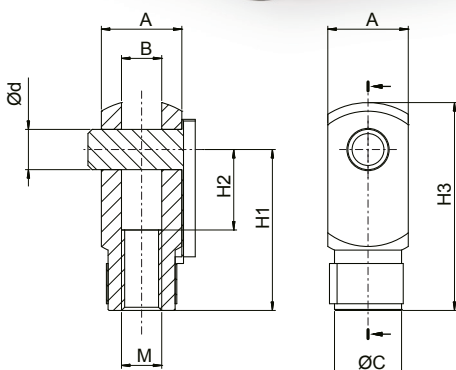
Material: steel, with anti-corrosion treatment. (Stainless Steel on request)



## FF FIXING FLANGED

Size	D1	D2	D3	d	H1	H2	M	Kg
CHD 2.5	Ø 50	Ø 26	Ø 40	Ø 7	16	6	M8	0.12
CHD 5	Ø 65	Ø 30	Ø 48	Ø 9	20	7	M12	0.22
CHD 10	Ø 80	Ø 39	Ø 60	Ø 11	21	8	M14	0.39
CHD 25	Ø 90	Ø 46	Ø 67	Ø 11	23	10	M20	0.58
CHD 50	Ø 110	Ø 60	Ø 85	Ø 13	30	15	M30	1.24
CHD 100	Ø 150	Ø 85	Ø 117	Ø 17	50	20	M36	3.62

Material: steel, with anti-corrosion treatment. (Stainless Steel on request)



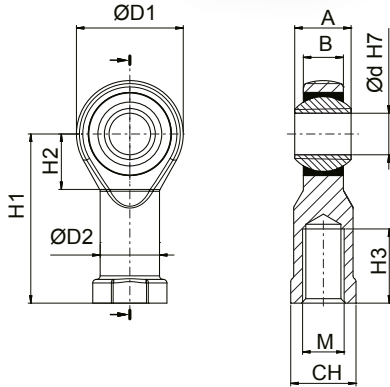
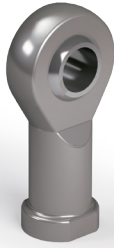
## FE FORK END

Size	A	B	C	H1	H2	H3	d	M	Kg
CHD 2.5	16	8	Ø 14	32	16	42	Ø 8	M8	0.10
CHD 5	24	12	Ø 20	48	24	62	Ø 12	M12	0.16
CHD 10	27	14	Ø 24	56	28	72	Ø 14	M14	0.23
CHD 25	40	20	Ø 34	80	40	105	Ø 20	M20	0.72
CHD 50	60	30	Ø 52	120	60	160	Ø 30	M30	2.47
CHD 100	70	35	Ø 60	144	72	188	Ø 35	M36	3.85

From sizes 2.5 to 25 fork ends are complete with pin and clips. In sizes 50 and 100 fork ends are complete with pin and circlip. Material: galvanized steel. (Stainless Steel on request)



# ACCESSORIES



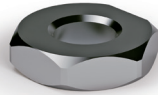
## RE ROD END

Size	A	B	H1	H2	H3	D1	D2	d H7	M	CH	kg
CHD 2.5 *	14	10.5	43	15	20	Ø 28	Ø 15	Ø 10	M10	17	0.08
CHD 5	16	12	50	17	22	Ø 32	Ø 17.5	Ø 12	M12	19	0.12
CHD 10	19	13.5	57	19	25	Ø 36	Ø 20	Ø 14	M14	22	0.18
CHD 25	25	18	77	27	33	Ø 50	Ø 27.5	Ø 20	M20	30	0.44
CHD 50 *	37	25	110	36	51	Ø 70	Ø 40	Ø 30	M30X2	41	1.18
CHD 100 *	43	28	125	41	56	Ø 80	Ø 46	Ø 35	M36X2	50	1.72

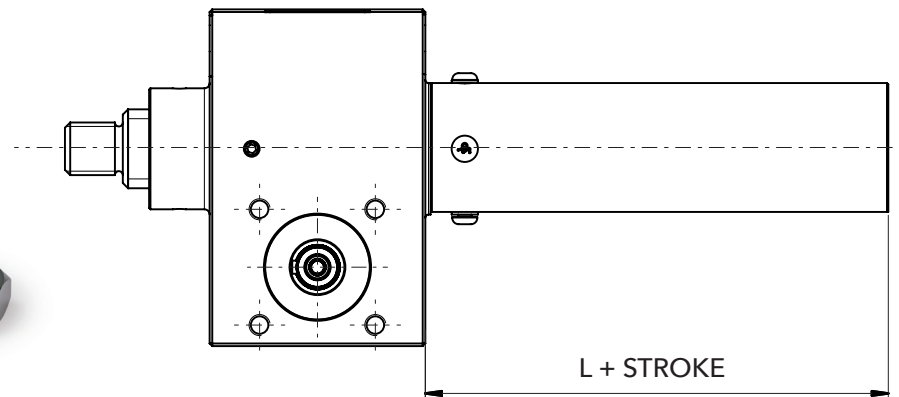
In sizes marked \* the RE option must be requested when ordering, as rod ends cannot be fitted to standard spindles.

**WARNING:** Only use with anti-rotation system!  
Material: steel.

Size	L
CHD 2.5	63
CHD 5	68
CHD 10	71
CHD 25	76
CHD 50	94
CHD 100	115



## AD ANTIROTATION DEVICE

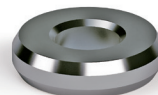


The anti-rotation device constrains the rotation of the translating screw around its own axis.

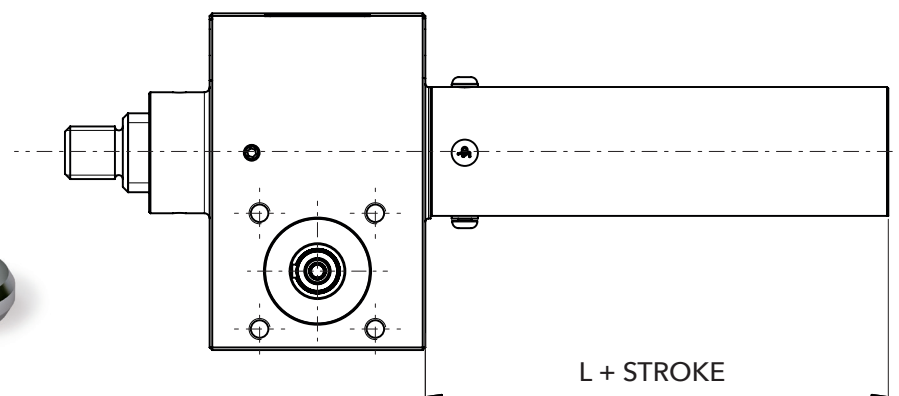
**WARNING:**

The device is indispensable if the load applied to the jack is not guided and with the use of RE terminals (rod ends). It also works as an escape protection system. It cannot be used as a stop.

Size	L
CHD 2.5	63
CHD 5	68
CHD 10	71
CHD 25	76
CHD 50	94
CHD 100	115



## EP ESCAPE PROTECTION



The escape protection prevents the screw from winding out of the gearbox.

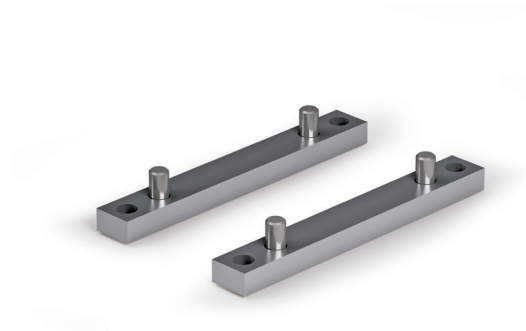
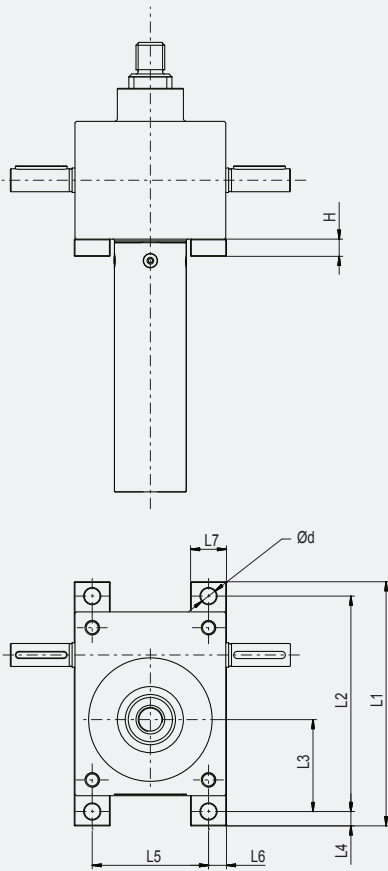
**WARNING:**

Mandatory in the T version with ball screws! Cannot be used as a stop. Cannot be fitted in combination with the anti-rotation system.



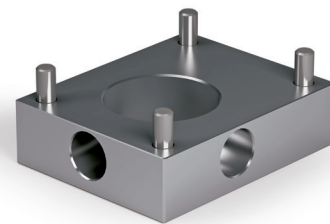
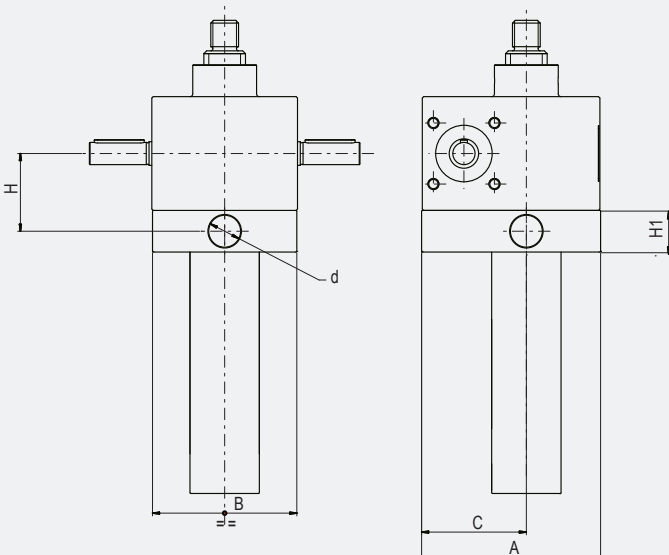


**FS FASTENING STRIPS**



Size	d	H	L1	L2	L3	L4	L5	L6	L7
CHD 2.5	Ø 6,5	10	90	75	29,5	7,5	38	6	12
CHD 5	Ø 8,5	10	120	100	41	10	52	9	18
CHD 10	Ø 8,5	10	140	120	50	10	63	10	20
CHD 25	Ø 11	12	170	150	64	10	81	12,5	25
CHD 50	Ø 13	16	230	204	90	13	115	15	30
CHD 100	Ø 22	25	270	236	101	17	131	18,5	37

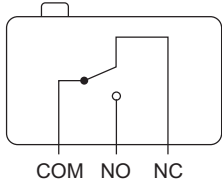
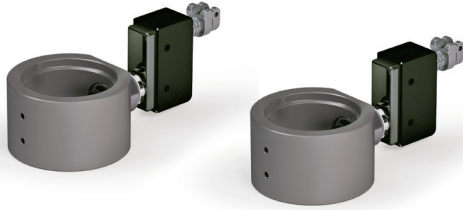
**PBP PIVOT BEARING PLATE**



Size	A	B	C	d	H	H1
CHD 2.5	60	50	38	Ø 8	35	20
CHD 5	78	72	48	Ø15	41	20
CHD 10	98	85	59	Ø18	50	25
CHD 25	128	105	75	Ø22	56	30
CHD 50	180	143	102	Ø25	78,5	40
CHD 100	200	163	117	Ø 28	105	50



# ACCESSORIES



## MS MECHANICAL LIMIT SWITCHES

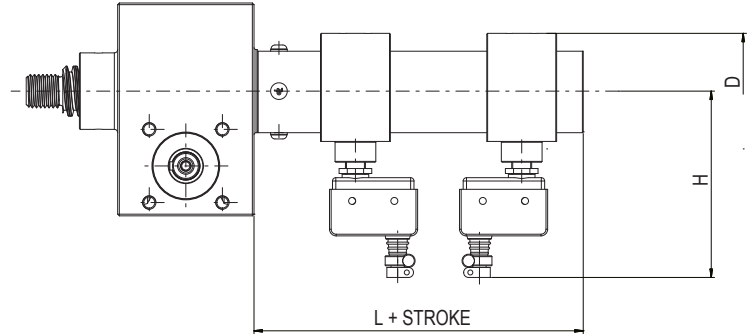
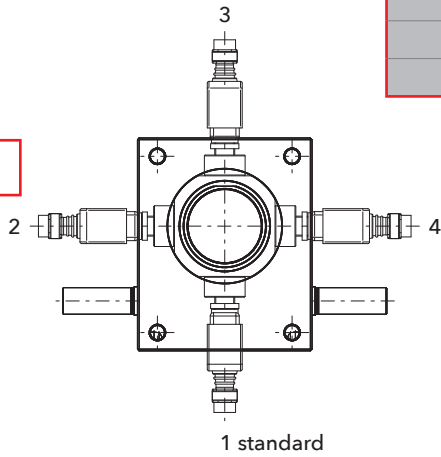
The mechanical limit switches are fixed to the screw protection tube by means of a special support that allows adjustment of +/- 5 mm. The standard switches have a double changeover NO and NC contact

### ORDER CODE REFERENCE

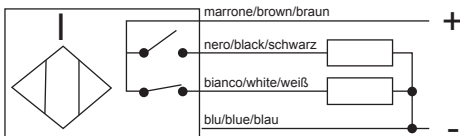
2MS = 2 microswitches with NO and NC contact

DIMENSIONS			
Type	D	H	L
CHD 2.5	Ø 46	105	91
CHD 5	Ø 50	107	93
CHD 10	Ø 55	109	98
CHD 25	Ø 70	112	104
CHD 50	Ø 80	121	125
CHD 100	Ø 110	130	156

### ORIENTATION



## NA + NC



## PLS PROXIMITY (INDUCTIVE) SENSORS

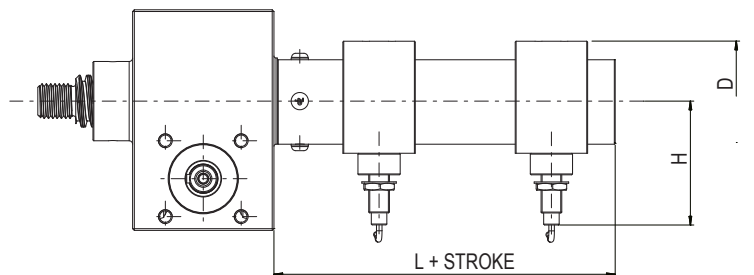
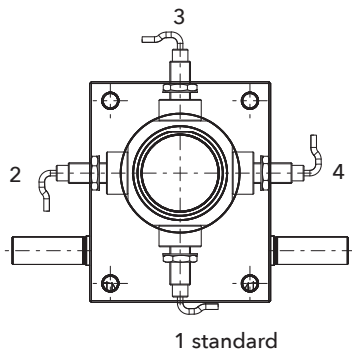
The inductive sensors are fixed to the screw protection tube by means of a special support that allows adjustment of +/- 5 mm.

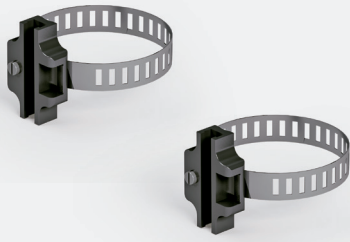
### ORDER CODE REFERENCE

2PLS = 2 Proximity (Inductive) Sensors

DIMENSIONS				TECHNICAL DATA:	
Type	D	H	L		
CHD 2.5	Ø 46	62	91	Supply voltage (UB):	5 ÷ 40 Vdc
CHD 5	Ø 50	64	93	Temperature range:	- 25° ÷ + 75°C
CHD 10	Ø 55	67	98	Degree of protection:	IP67
CHD 25	Ø 70	71	104	Switch status indicator:	yellow LED
CHD 50	Ø 80	78	125		
CHD 100	Ø 110	88	156		

### ORIENTATION





## MLS MAGNETIC LIMIT SWITCHES

The magnetic limit switches are fixed to the screw protection tube by means of special supports that allow for stroke adjustment. When adjusting the stroke, take care not to exceed the limit indicated in the table below to prevent the jack from reaching extreme positions causing contact with mechanical stops. Further information can be found in the use and maintenance manual.

The sensors are fitted in the position indicated in the drawing, but for assembly requirements they can be rotated around the shield tube by means of the special support.

There are three types of sensor available:

### NC Reed circuit

Circuit with normally closed reed switch protected by varistor against overvoltage generated when the circuit is opened, and LED display system.

### NO Reed Circuit

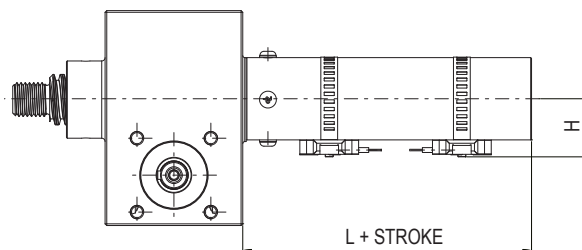
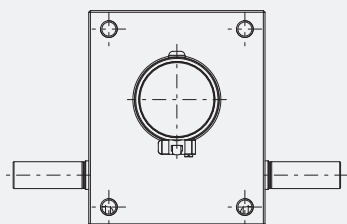
Circuit with normally open reed switch protected by varistor against overvoltage generated when the circuit is opened, and LED display system.

### NPN Circuit

Circuit with Hall effect with NPN output. Protected against polarity reversal and against peak overvoltage. LED display system. opened, and LED display system.

DIMENSIONS		
Type	H	L
CHD 2.5	25	63
CHD 5	26	68
CHD 10	29	71
CHD 25	34	76
CHD 50	42	94
CHD 100	55	115

Sensor type	NC Reed	NO Reed Circuit	NPN Circuit
Referenz	2MLS0 2 Sensors circuit Reed NC (standard version)	2MLS1 2 Sensors circuit Reed NO	2MLS2 2 Sensors NPN
DC voltage	3 / 110 V	3 / 30 V	6 / 30 V
AC voltage	3 / 110 V	3 / 30 V	-
Current	0,5 A	0,1 A	0,20 A
Power	20 VA	6 VA	4 W
Supply cable	PVC 2 x 0,14 mm	PVC 2 x 0,14 mm	PVC 3 x 0,14 mm
Cable lenght	2500 mm	2.500 mm	2.500 mm
Protection	IP67	IP67	IP67
Circuit diagram			



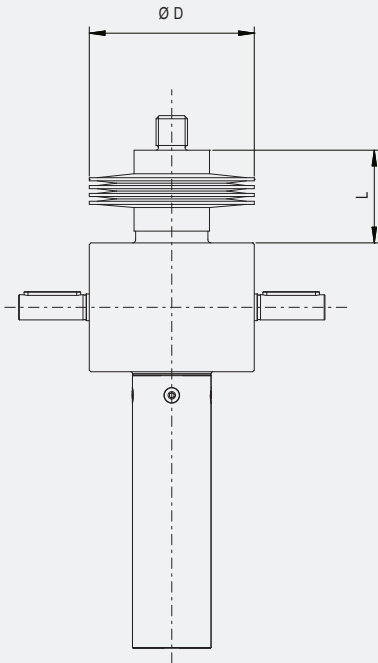


## BLS SCREW PROTECTION BELLOWS

IMPORTANT! Assembly of the bellows must be defined at the time of ordering as it involves variations to the jack.

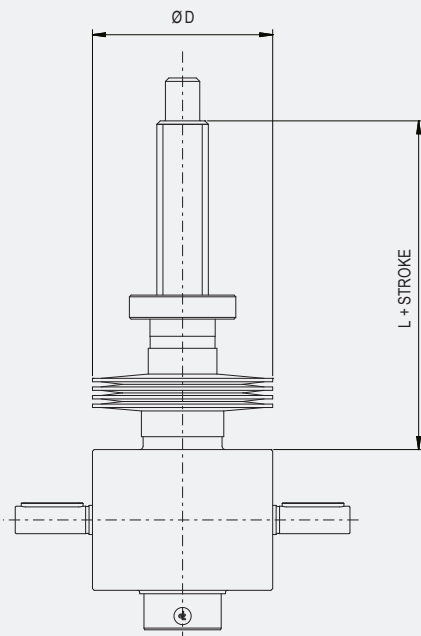
In case of horizontal assembly the bellows must be fitted with support rings to avoid wear due to chaffing against the screw.

Size variation with insertion of the bellows.



### TRASLATING VERSION

Type	D	L
CHD 2.5	Ø 60	36 + (1.14 x stroke)- stroke
CHD 5	Ø 70	36 + (1.14 x stroke)- stroke
CHD 10	Ø 80	40 + (1.14 x stroke)- stroke
CHD 25	Ø 105	46 + (1.1 x stroke)- stroke
CHD 50	Ø 125	56 + (1.09 x stroke)- stroke
CHD 100	Ø 150	65 + (1.09 x stroke)- stroke

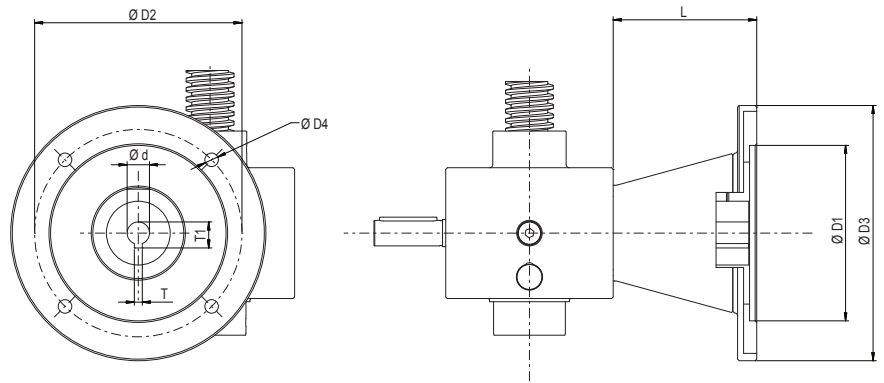
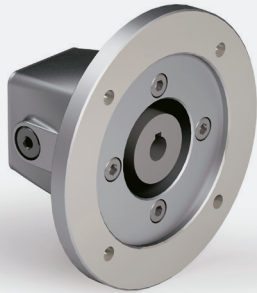


### ROTATING VERSION

Type	D	L
CHD 2.5	Ø 60	76 + (1.14 x stroke)- stroke
CHD 5	Ø 70	76 + (1.14 x stroke)- stroke
CHD 10	Ø 80	82 + (1.14 x stroke)- stroke
CHD 25	Ø 105	90 + (1.1 x stroke)- stroke
CHD 50	Ø 125	130 + (1.09 x stroke)- stroke
CHD 100	Ø 150	150 + (1.09 x stroke)- stroke

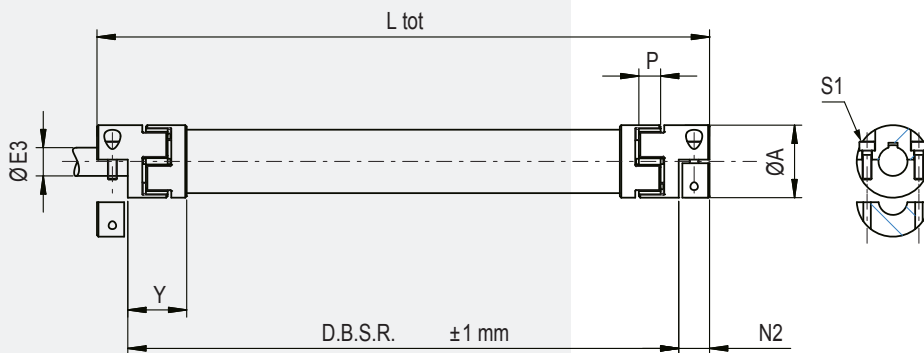


## DRIVE FLANGE



Size	d	T	T1	D1	D2	D3	D4	L					
								CHD 2.5	CHD 5	CHD 10	CHD 25	CHD 50	CHD 100
56 B14	Ø9	3	10.4	Ø 50	Ø 65	Ø 80	Ø 7	55	-	-	-	-	-
56 B5	Ø9	3	10.4	Ø 130	Ø 165	Ø200	Ø 7	-	57	-	-	-	-
63 B14	Ø 11	4	12.8	Ø 60	Ø 75	Ø 90	Ø 8.5	55	-	-	-	-	-
63 B5	Ø 11	4	12.8	Ø 130	Ø 165	Ø 200	Ø 8.5	-	60	75	-	-	-
71 B5	Ø 14	5	16.3	Ø 130	Ø 165	Ø 200	Ø 8.5	-	65	80	90	-	-
80 B5	Ø 19	6	21.8	Ø 130	Ø 165	Ø 200	Ø 11	-	-	90	105	112	-
90 B5	Ø 24	8	27.3	Ø 130	Ø 165	Ø 200	Ø 11	-	-	-	105	112	-
100/112 B5	Ø 28	8	31.3	Ø 180	Ø 215	Ø 250	Ø 13	-	-	-	-	125	140
132 B5	Ø 30	10	41.3	Ø 230	Ø 265	Ø 300	Ø13	-	-	-	-	-	175

## TS TRANSMISSION SHAFTS



### Shafts with clamp hubs

- Practical radial assembly with clamp hubs.
- Easy assembly and adjustment thanks to the clamps.
- Can be supplied with keyway on request.
- Material: high strength aluminium (Stainless Steel on request).
- Backlash-free elastomeric spider with Shore 64D hardness.
- Operating temperature: rom -10°C up to +70°C

Size	A	E3 Min.	E3 Max	N2	P	Y	Dt	L	Extension weight [Kg/m]	Total weight [Kg]	D.B.S (R Min) [mm]	S1	Tightening torque [Nm]
14	Ø 30	6	15	14	12	20.5	30	28 + D.B.S.R.	1.06	0.03 + Extension weight	58	M4	3.1
19	Ø 40	8	20	19	16	30.5	35	38 + D.B.S.R.	1.27	0.15 + Extension weight	95	M5	6.2
24	Ø 55	10	30	22	18	37.5	50	44 + D.B.S.R.	1.91	0.28 + Extension weight	113	M6	10.5
28	Ø 65	14	35	25	20	41	60	50 + D.B.S.R.	3.34	0.55 + Extension weight	131	M8	25
38	Ø 80	15	45	34	24	46	70	68 + D.B.S.R.	5.099	0.98 + Extension weight	161	M8	25

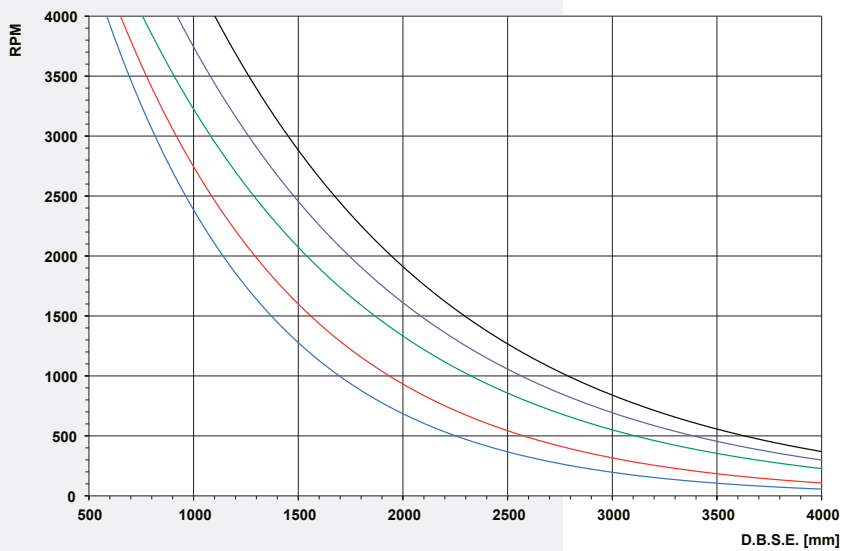


# TRANSMISSION SHAFTS

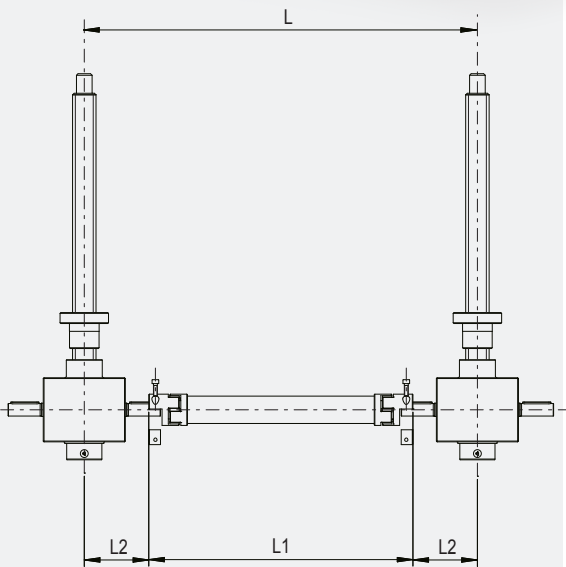
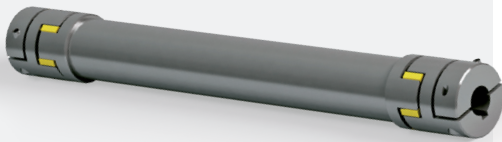
## TRANSMISSIBLE TORQUES TYPE C CLAMP LOCKING

Size	6	8	9	10	11	12	14	15	16	18	19	20	22	24	25	28	30	32	35	38	40	42	48
14	6	8	9	10	11	12	14	15	16														
19		14	16	17	19	21	24	26	28	31	33	35	33	36									
24				20	22	24	28	30	32	36	38	40	44	48	50	57	61						
28							55	59	63	71	75	79	86	94	98	110	118	126	137	128			
38								59	63	71	75	79	86	94	98	110	118	126	137	149	157	165	177

## SPEED DIAGRAM



- TS38
- TS28
- TS24
- TS19
- TS14

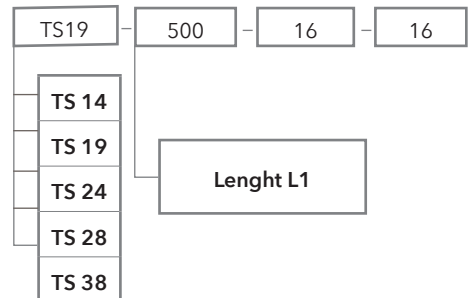


$$L1 = L - (2 * L2)$$

**L** = Jacks centre distance  
**L1** = Total shaft length with couplings

## ORDERING KEY

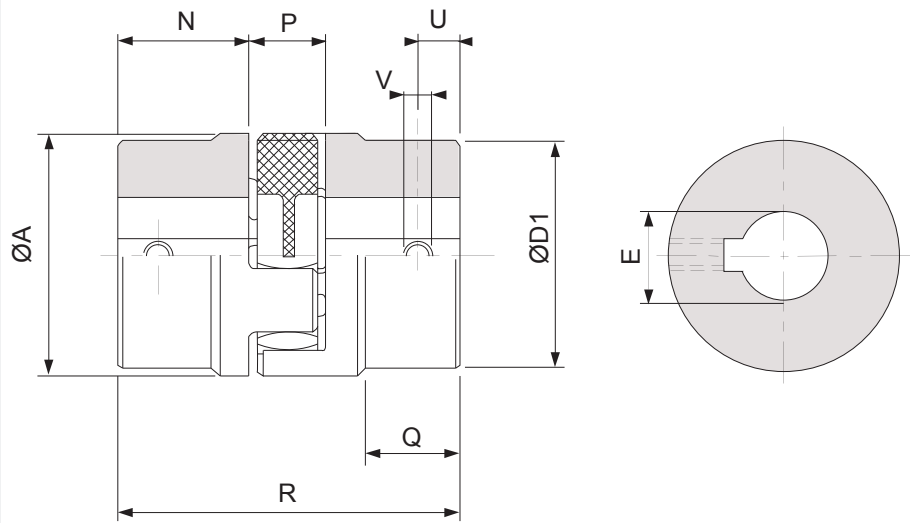
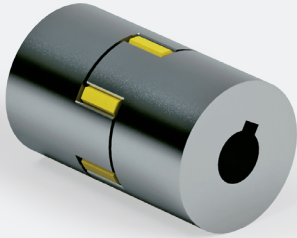
Size      Length      Couplings diameters



Type	Shaft Type	L2
CHD 2.5	TS14	32
	TS 14	46
CHD 5	TS 19	41
	TS 24	38
CHD 10	TS 14	56
	TS 19	51
CHD 25	TS 24	48
	TS 19	78,5
	TS 24	75,5
CHD 50	TS 28	72,5
	TS 24	98
CHD 100	TS 28	95
	TS 38	86
	TS 28	125
	TS 38	116



## COUPLINGS



Size	A	D1	E Max	N	P	Q	R	U	V	Weight [Kg]
14	30	-	16	11.5	12	-	35	5	M4	0.03
19	40	-	25	25	16	-	66	10	M5	0.15
24	55	53	35	30	18	20	78	10	M5	0.28
28	65	63	40	35	20	24	90	15	M8	0.55
38	80	78	48	45	24	33	114	15	M8	0.98



# APPLICATION TECHNICAL SPECS NEEDED FOR THE SCREWJACK CHOICE

Company ..... Date .....

Address ..... Phone .....

Contact ..... E-mail .....

Application description .....

Total load involved [kN] ..... Screwjacks for each system: n° .....

Static compression-push load [kN] ..... Static traction-pull load: [kN] .....

Dynamic compression-push load [kN] ..... Dynamic traction-pull load: [kN] .....

Type of load: guided  vibrating  off-set

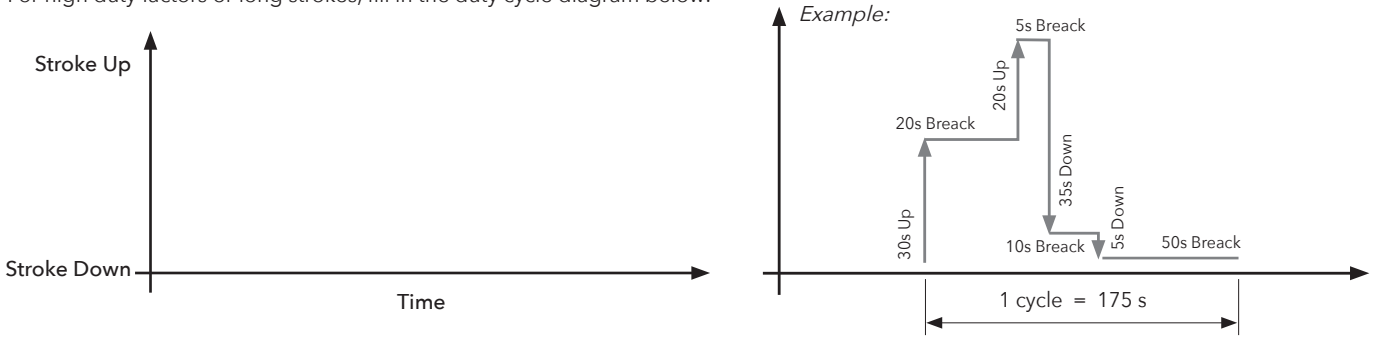
Installation axis: Vertical  Horizontal  Pivoting

Max. stroke: [mm] ..... Effective working stroke: [mm] .....

Speed: Type N = 25mm/s  Type L = 6.25 mm/s  ..... mm/s

Duty cycle: ..... % Cycle hour: N° ..... Hours per day: N° .....

For high duty factors or long strokes, fill in the duty cycle diagram below:



**Operating conditions:** with aggressive work environment, advise .....

Dusty  AggressiveHumidity  Chipping  Ambient temperature: mis. ....°C maz. ....°C

**Motor:** Three-phase AC motor  Single-phase AC motor.  With brake  Manual release

<b>SN-R</b>	Safety Nuts (CHD-R)	<b>Options</b>
<b>SN-T</b>	Safety Nuts CHD-T version	
<b>IS</b>	Increased size screw CHD-R	
<b>FS</b>	Fastening strips	
<b>PBP</b>	Pivot bearing plate	
<b>2PLS</b>	N°2 Proximity (Inductive) sensors	
<b>2MLS</b>	N° 2 Magnetic limit switches	
<b>2MS</b>	N° 2 Mecanical limit switches	
<b>B</b>	Bellows	
<b>AD</b>	Antirotation Device (CHD-T only)	
<b>EP</b>	Escape protection	
<b>SSV</b>	Stainless steel version	
<b>H</b>	Handwheel	
<b>VS</b>	Viton seals	
<b>SS</b>	Silicone seals	

For multi screw jacks systems see the standard diagrams (pages 18-20) and fill in the dimensions:

<b>Front Fixings:</b>	<b>PE</b>	Pivot bearing end	
	<b>FF</b>	Fixing Flanged	
	<b>RE</b>	Rod end	
	<b>FE</b>	Forked end	