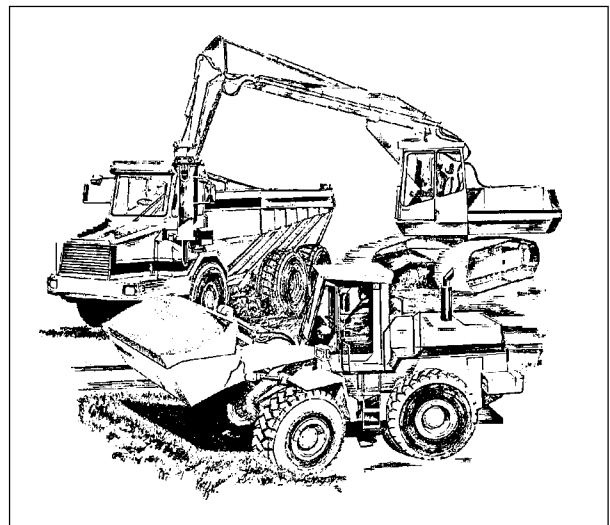
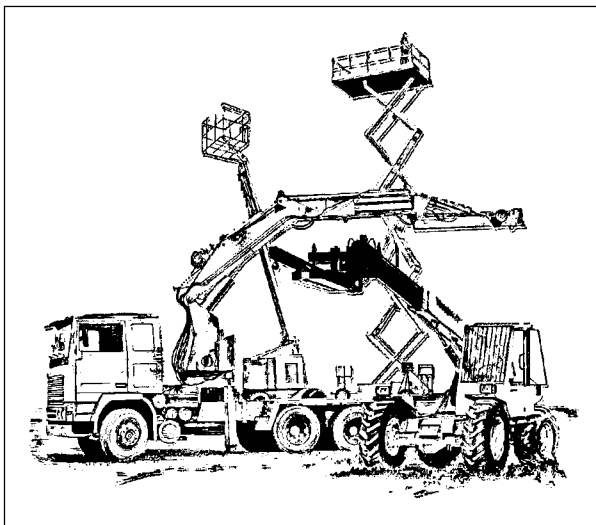




## Hydraulic disc brakes & Brake-motor unit





# HYDRAULIC DISC BRAKES AND BRAKE-MOTOR UNITS

## INDEX

### ➤ DISC BRAKES

- MTF SERIES ..... MTF-01-03
- ELB, LBV SERIES ..... ELB-01-11

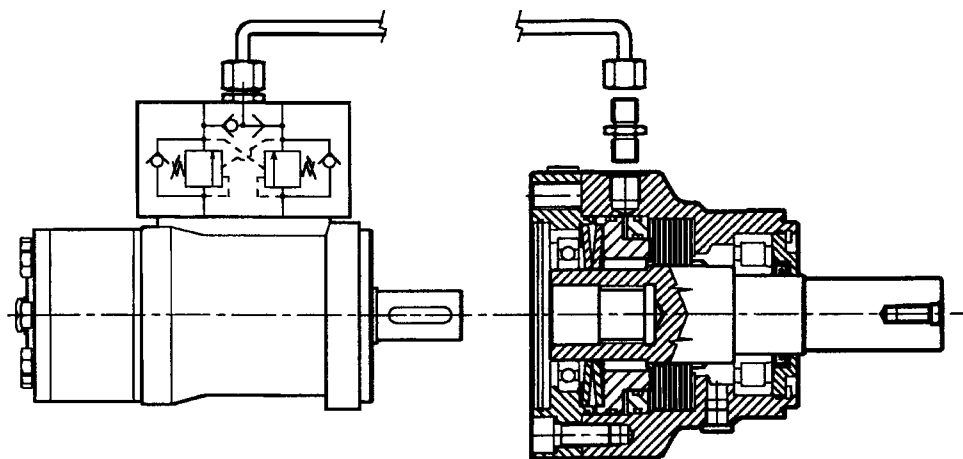
### ➤ INTEGRATED BRAKE-MOTOR UNITS

- SV, TV SERIES ..... SV,TV 01-03
- PW SERIES ..... PW-01-02
- TW SERIES ..... TW-01-02

# HYDRAULIC DISC BRAKE MTF Series

MTF brakes are multiple disc negative brakes (normally closed), to be coupled with SAE A 2 holes orbit motors.

Normally used for static braking as parking brakes or as emergency brakes in low power application such as aerial platforms, cranes, mini excavators, wheelchairs, ... Applying the correct pressure all discs are released and motors can freely be driven. The brake can be used dynamically only under careful control of the temperature and only for short time.

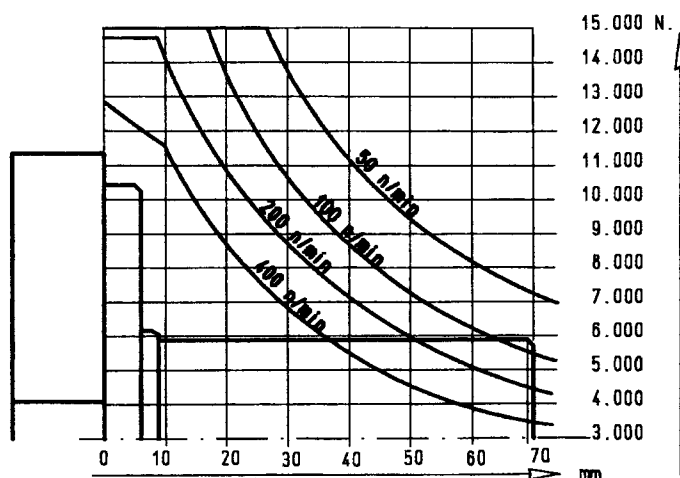
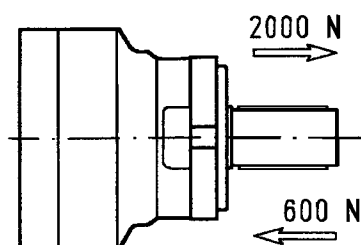


## TECHNICAL DATA

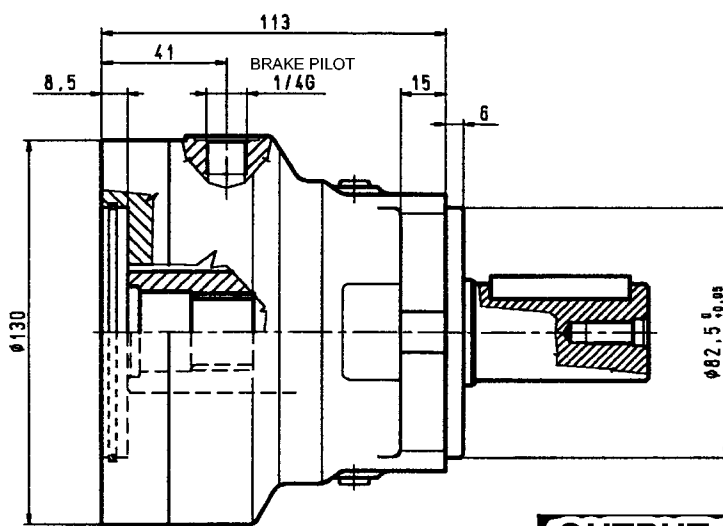
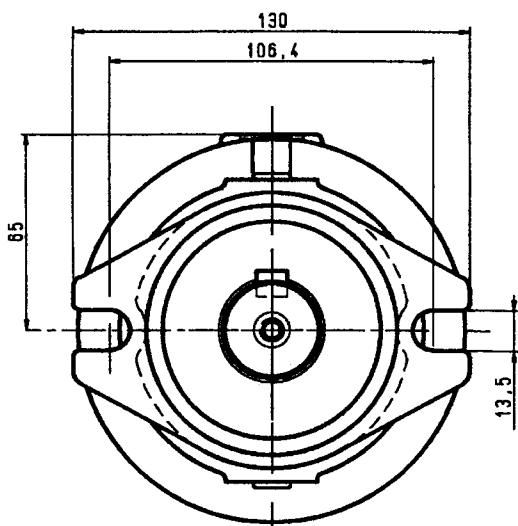
Type		MTF/20	MTF/30	MTF/40	MTF/50	MTF/60
Static Torque	Nm	200	300	400	500	600
Dynamic Torque	Nm	140	210	280	350	420
Max N° dynamic braking per hour		50	40	30	20	15
Releasing Pressure	bar	18	18	25	25	30
Max inlet pressure	bar	250	250	250	250	250

Static torque with 0 bar pressure.  
Use oil with viscosity grade within 30-60 Cst range.  
Oil quantity 3cc.

Shaft loads for 2000 working hour

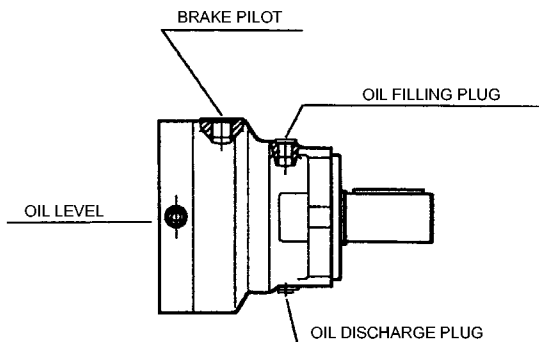
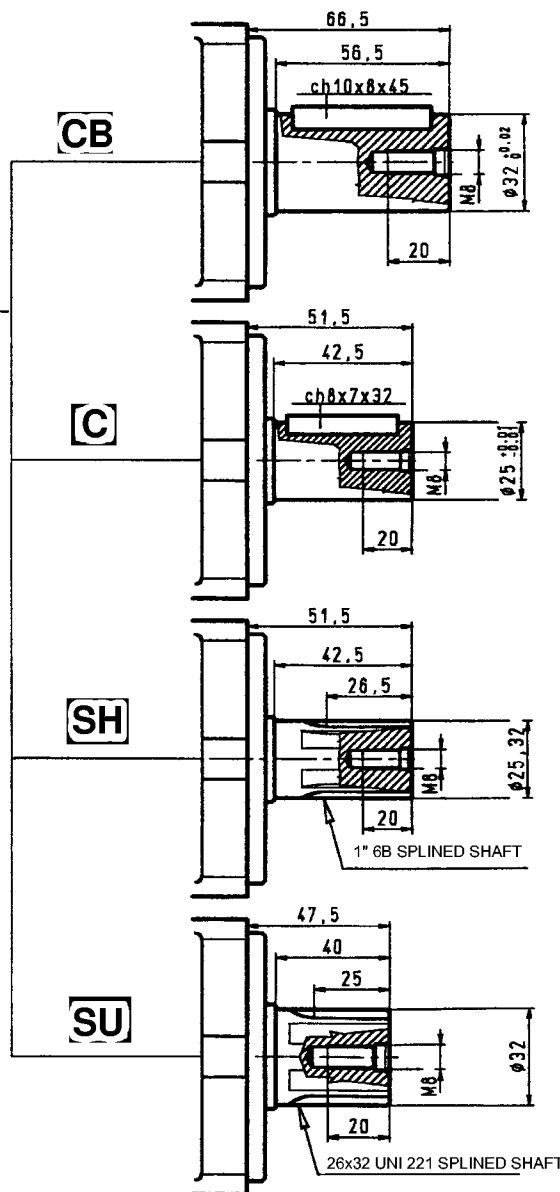
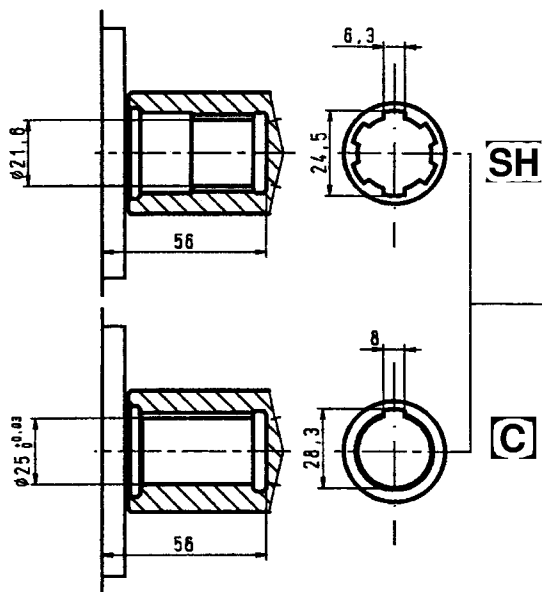


# DIMENSIONS



## INPUT SHAFTS

## OUTPUT SHAFTS



## ORDER CODE

	1	2	3	4
MTF	400			

**Pos.1 - Brake Type** **Pos.4 - Output Shaft Type**

**Pos.2 - Static Torque [Nm]**

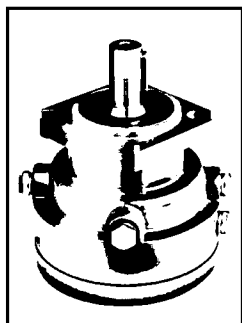
20	- 200 Nm
30	- 300 Nm
40	- 400 Nm
50	- 500 Nm
60	- 600 Nm

<b>CB</b>	- 32 mm cilindrical Shaft
<b>C</b>	- 25 mm cilindrical Shaft
<b>SH</b>	- 1"6B SAE Splined Shaft
<b>SU</b>	- 26x32 UNI221 Splined Shaft

**Pos.3 - Inlet Shaft Type**

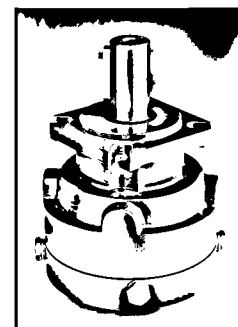
SH	- 1" 6B SAE Splined
C	- 25mm cilindrical Shaft

# HYDRAULIC DISC BRAKES ELB, LBV



## APPLICATION

- » Heavy Duty machinery;
- » Wheel drives;
- » Material handling;
- » Mining;
- » Agriculture;
- » Conveyors;
- » Door openers and swing drives etc.



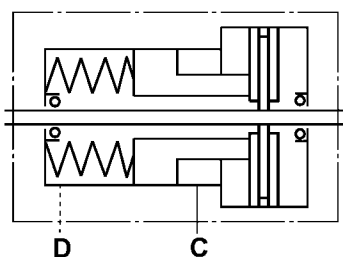
## GENERAL

<b>Pressure fluid</b>	Mineral based- HLP(DIN 51524) or HM(ISO 6743/4)
<b>Temperature range, °C</b>	-30 ÷ 90
<b>Viscosity range, mm<sup>2</sup>/s</b>	20 ÷ 75
<b>Filtration</b>	ISO code 20/16 (nominal filtration of 25 micron)
<b>Maintenance</b>	Changed after the first 50-100 h, then after every 500-1500 h.

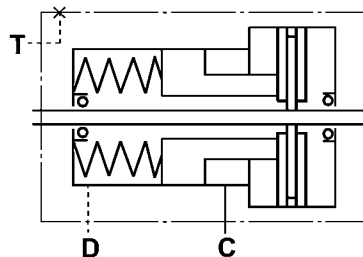
## CONTENTS

Hydraulic Disc Brake for OP, OR and OS Motors type ELB/288 ... ELB LBV-02+03	
Hydraulic Disc Brake for OSS and OSV type ELB(LBV)/289 .....	ELB LBV-04
Hydraulic Disc Brake for OSS and OSV type ELB(LBV)/290 .....	ELB LBV-05
Specification data for ELB(LBV)/289, 290 .....	ELB LBV-06
Load curve for ELB(LBV)/289, 290 .....	ELB LBV-06
Output Shafts for ELB(LBV)/289, 290 .....	ELB LBV-06
Internal Spline data .....	ELB LBV-07
Order code for ELB(LBV)/289, 290 .....	ELB LBV-07
Hydraulic Disc Brake for OTS and OTV type ELB(LBV)/314 .....	ELB LBV-08
Hydraulic Disc Brake for OTS and OTV type ELB(LBV)/315 .....	ELB LBV-09
Specification data for ELB(LBV)/314, 315 .....	ELB LBV-10
Load curve for ELB(LBV)/314, 315 .....	ELB LBV-10
Output Shafts for ELB(LBV)/314, 315 .....	ELB LBV-11
Order code for ELB(LBV)/314, 315 .....	ELB LBV-11

### ELB

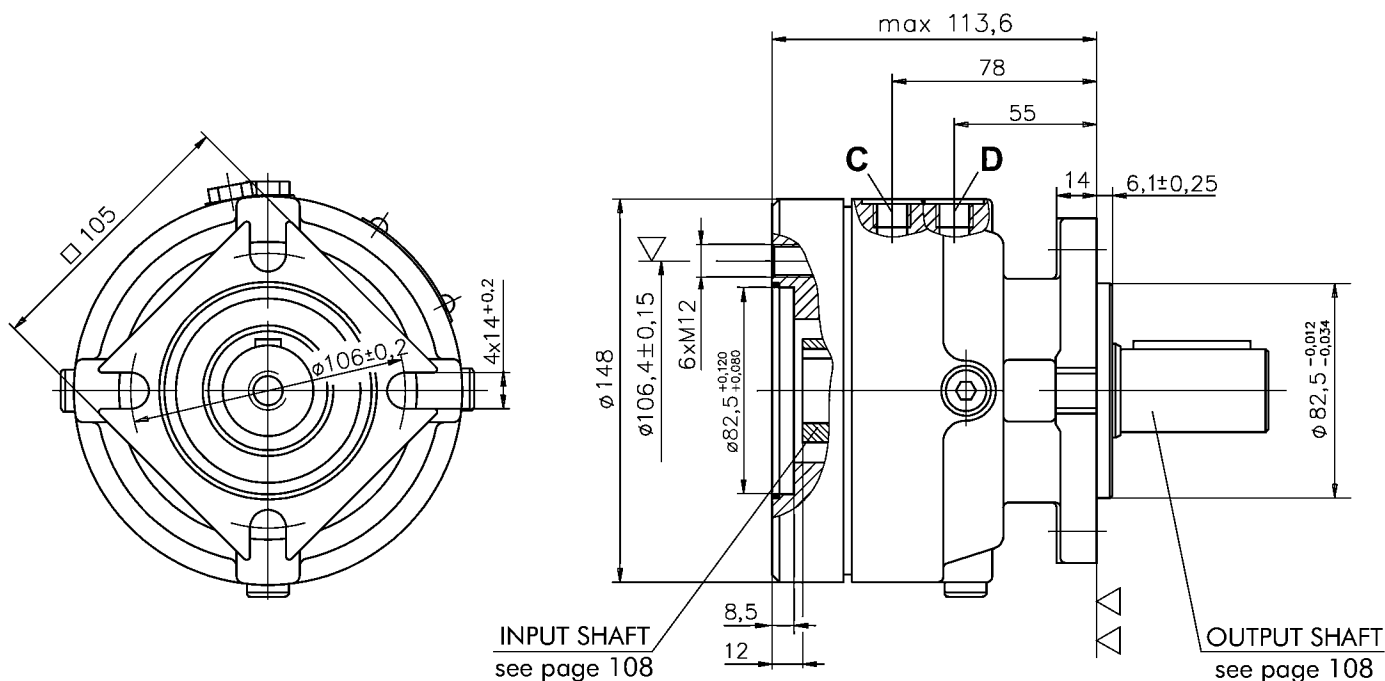


### LBV



**HYDRAULIC DISC BRAKE FOR FLANGE ATTACHMENT  
TO OP, OR AND OS HYDRAULIC MOTORS**

**TYPE ELB/288**



**C** : Brake release Port - G $\frac{1}{4}$ , 9 mm depth

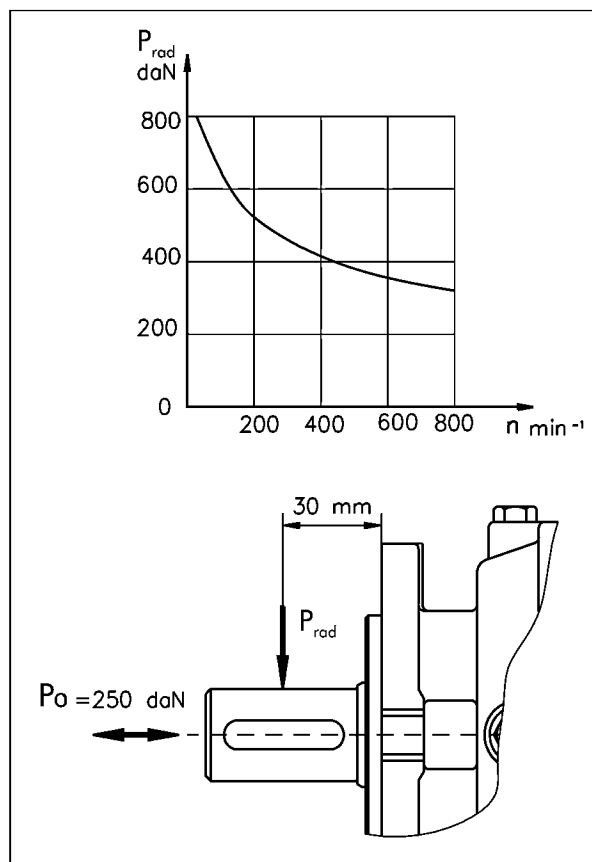
**D** : Drainage tap - G $\frac{1}{4}$ , 9 mm depth

▽- Place for attachment

(tightening torque for bolts M12x30 - 8.8 DIN 931 - 7 daNm)

▽▽- Place for attachment

**LOAD CURVE**



**SPECIFICATION DATA**

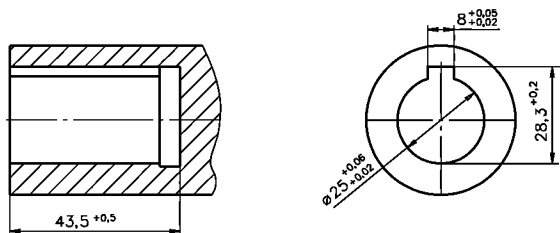
Description ELB/288...	7	14	21	32	43
*Static Torque [daNm]	6-8	13-15	20-22	31-34	41-45
Opening Pressure [bar]	min	4-5	8-9	12-13	18-20
	max	300			
Min. oil quantity for brake releasing [cm <sup>3</sup> ]	7- 8				
Oil quantity [cm <sup>3</sup> ]	50 - 120				
Max. Pressure in drain space [bar]	0,5				
Weight [kg]	9				

\*Static torque is obtained at working pressure - 0 bar.

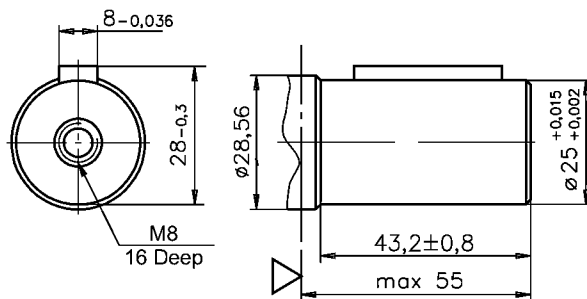
**INPUT SHAFT HOLES**

**OUTPUT SHAFT EXTENSIONS**

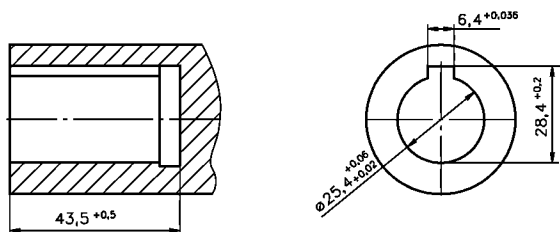
[C]



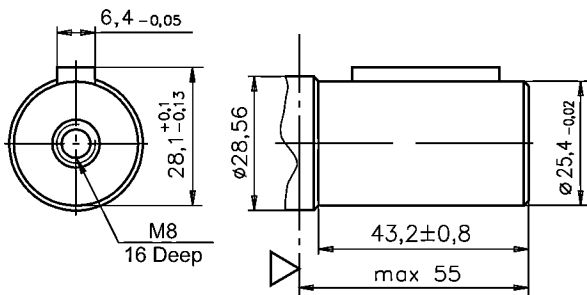
[C]-  $\varnothing 25$  straight, Parallel key A8x7x32 DIN 6885  
Max. Torque 34 daNm



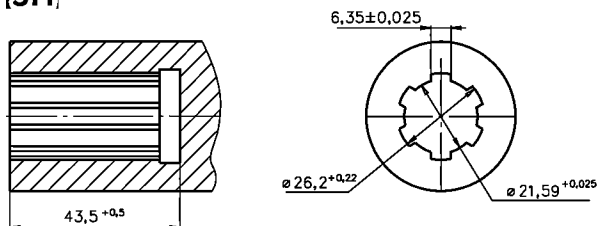
[CO]



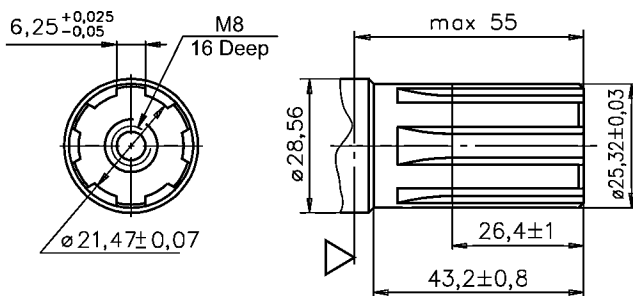
[CO] -  $\varnothing 1$ " straight Parallel key  $\frac{1}{4}$ "x $\frac{1}{4}$ "x $1\frac{1}{4}$ " BS46  
Max. Torque 34 daNm



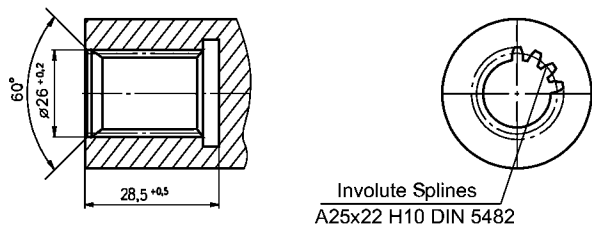
[SH]



[SH]- splined BS 2059 (SAE 6B)  
Max. Torque 34 daNm



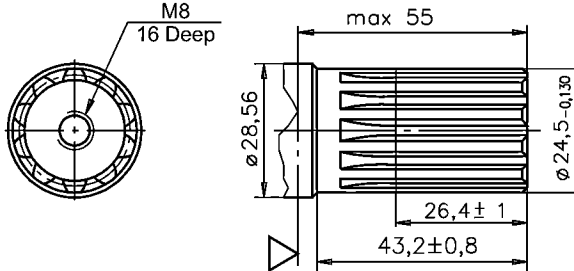
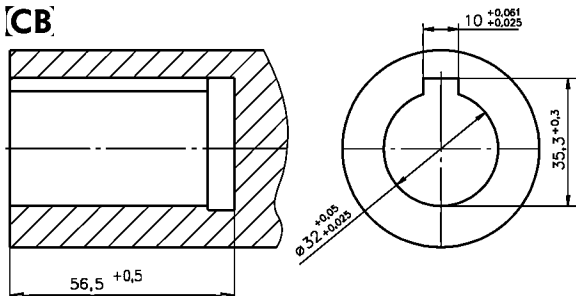
[SB]



Involute Splines  
A25x22 H10 DIN 5482

[SA]- splined B25x22 h9 DIN 5482  
Max. Torque 40 daNm

[CB]

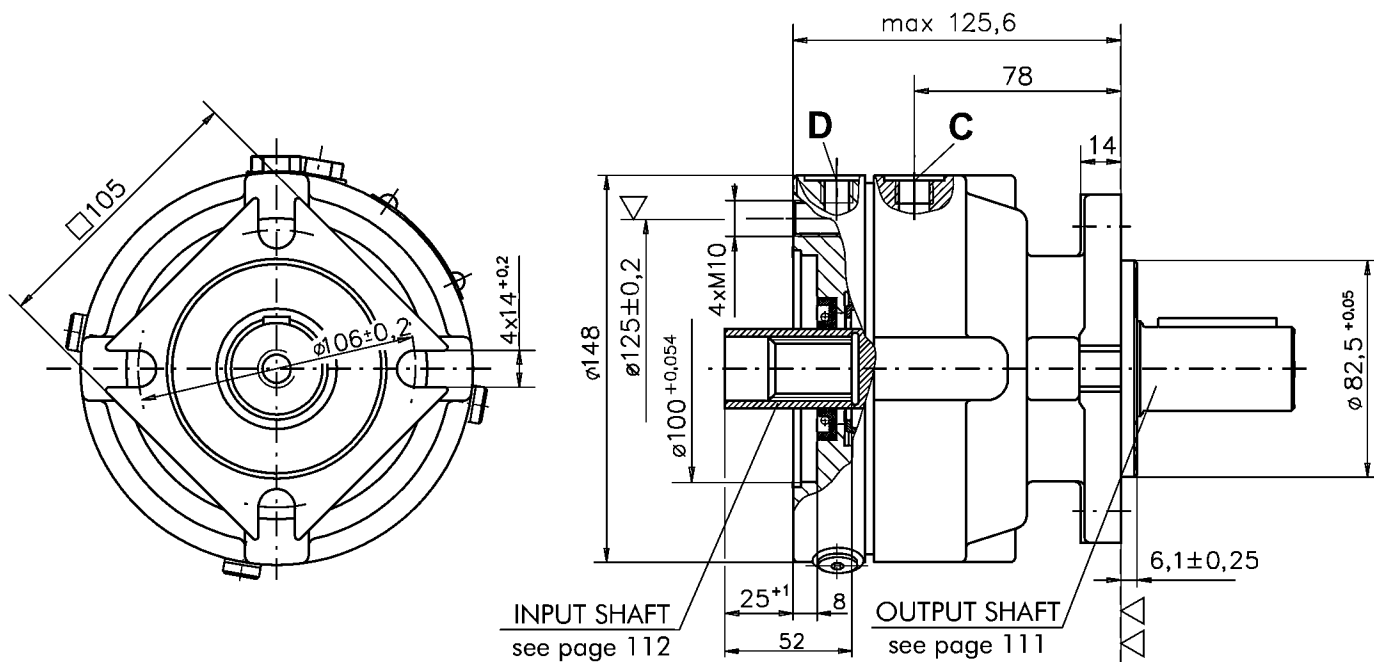


▽ - Disc Brake Mounting Surface

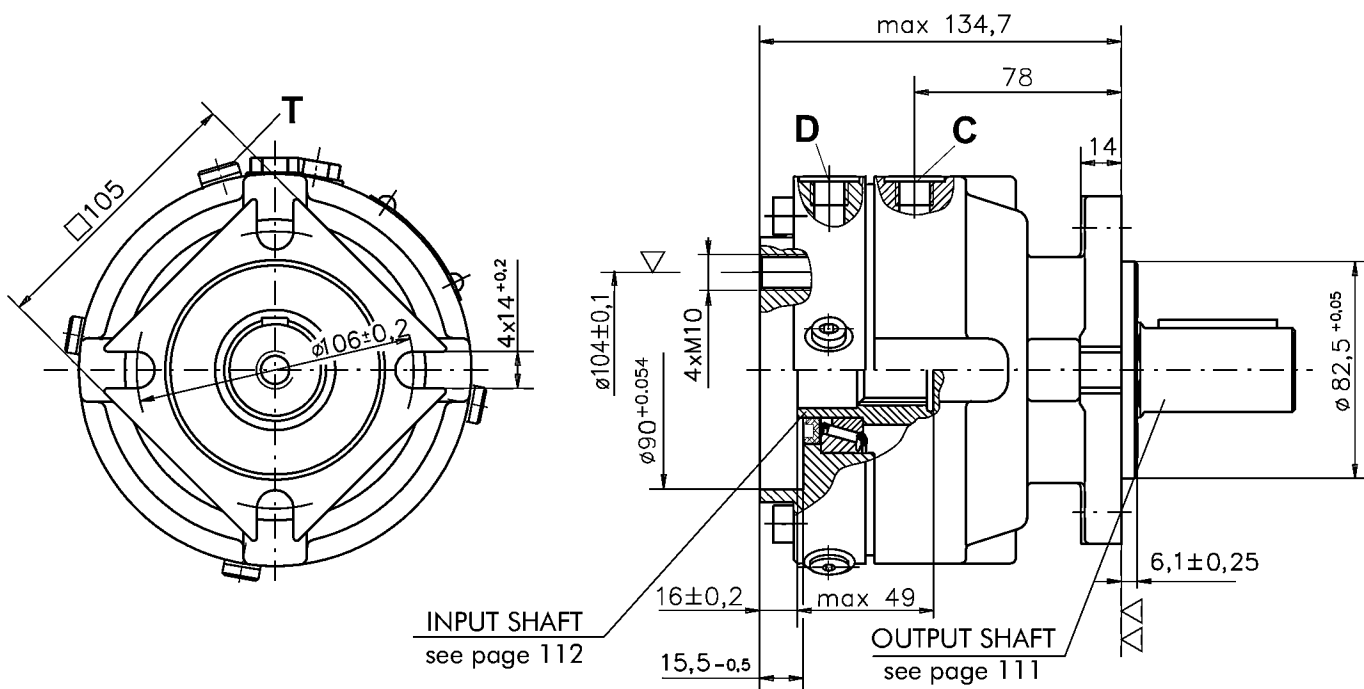


**HYDRAULIC DISC BRAKE FOR FLANGE ATTACHMENT  
TO OSS AND OSV HYDRAULIC MOTORS**

**TYPE ELB/289**



**TYPE LBV/289**

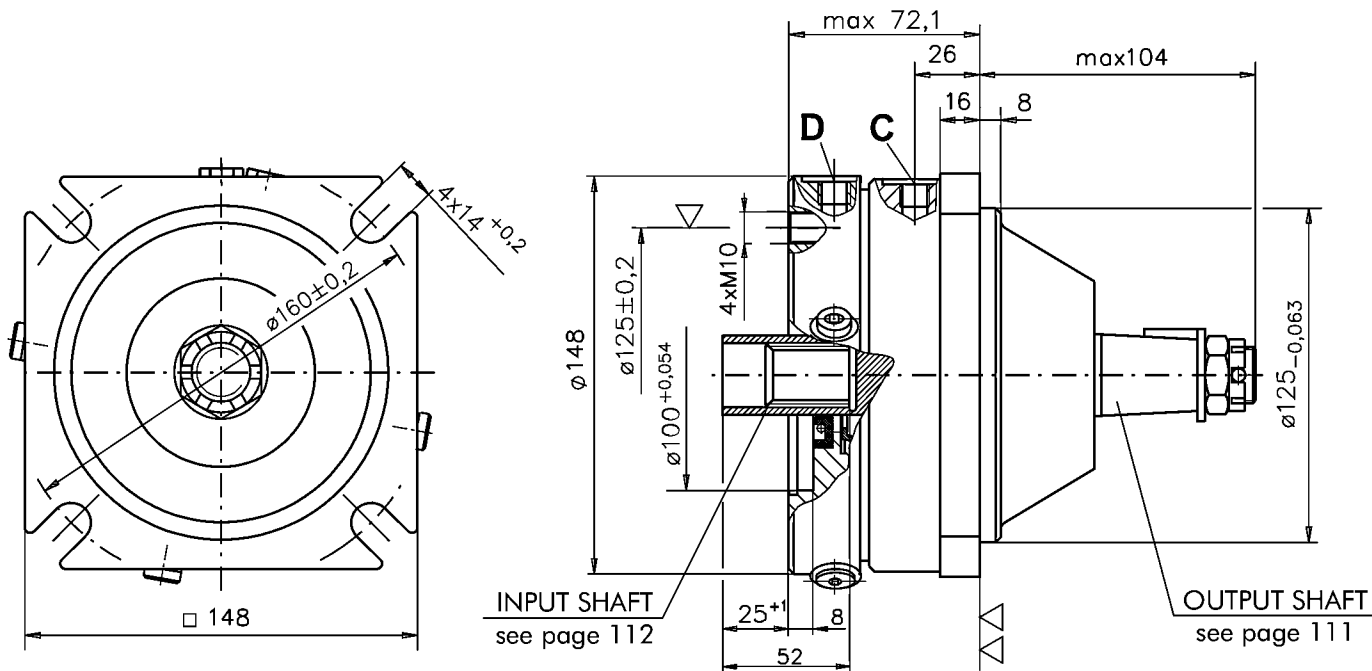


▽ - Place for attachment  
(tightening torque for bolts M10x35 - 8.8 DIN 912 - 5 daNm)  
▽▽ - Place for attachment

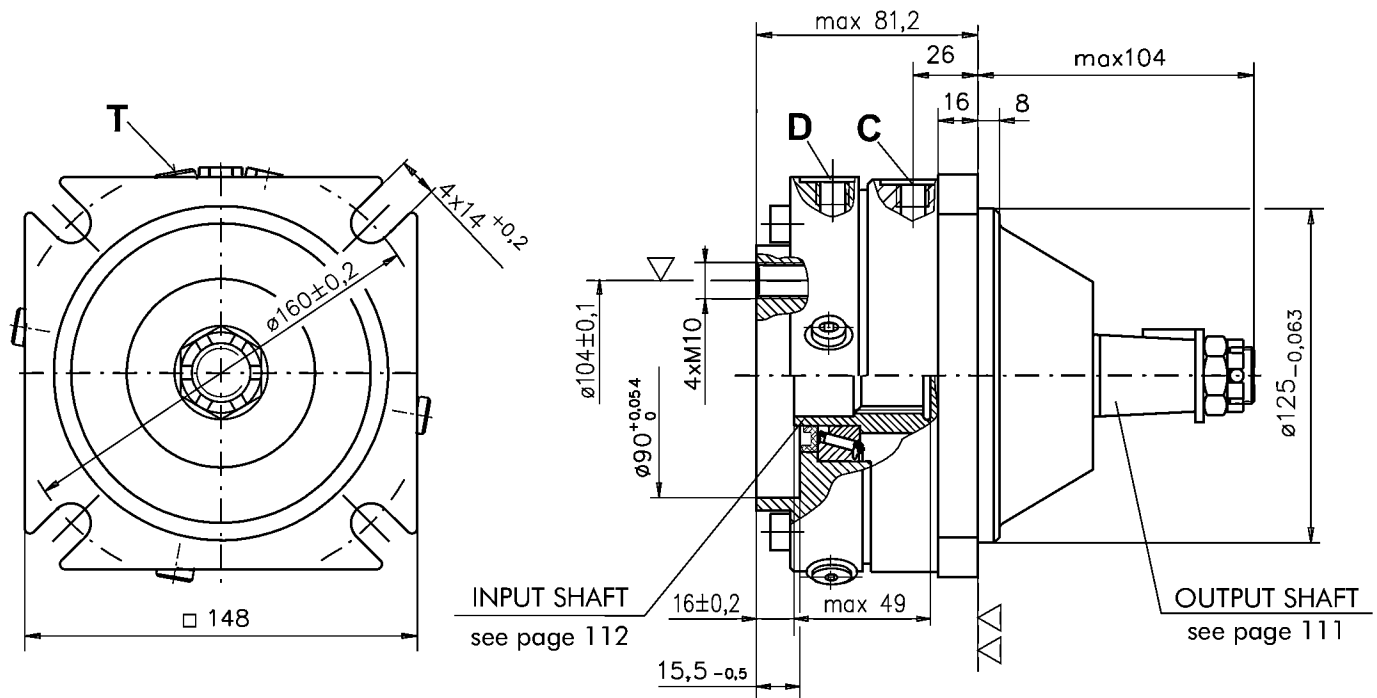
C : Brake release Port - G $\frac{1}{4}$ , 9 mm depth  
D, T : Drainage tap - G $\frac{1}{4}$ , 9 mm depth

**HYDRAULIC DISC BRAKE FOR FLANGE ATTACHMENT  
TO OSS AND OSV HYDRAULIC MOTORS**

**TYPE ELB/290**



**TYPE LBV/290**

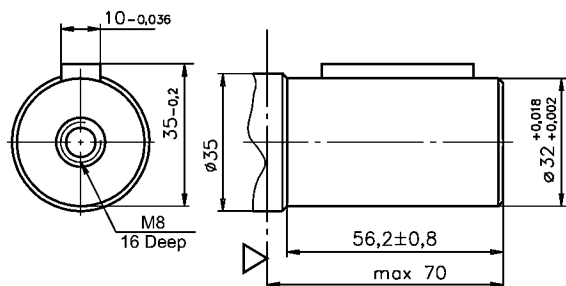


▽ - Place for attachment  
(tightening torque for bolts M10x35 - 8.8 DIN 912 - 5 daNm)  
▽▽ - Place for attachment

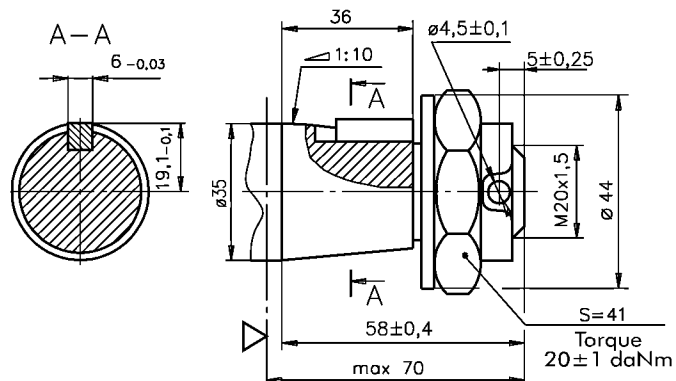
**C** : Brake release Port - G $\frac{1}{4}$ , 9 mm depth  
**D, T** : Drainage tap - G $\frac{1}{4}$ , 9 mm depth

## OUTPUT SHAFT EXTENSIONS

**[CB]**-  $\varnothing 32$  straight, Parallel key A10x8x45 DIN6885  
Max. Torque 77 daNm



**[KB]**- tapered 1:10, Parallel key B6x6x20 DIN6885  
Max. Torque 77 daNm



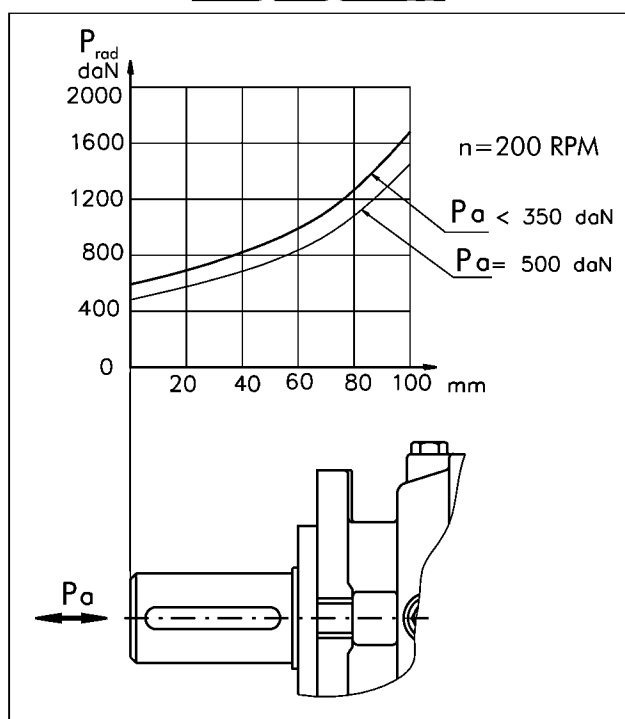
## SPECIFICATION DATA

Description <b>ELB/289(290)</b> <b>LBV/289(290)</b>	21	32	43	63
*Static Torque [daNm]	20-22	31-34	41-45	61-64
Opening Pressure [bar]	min 12-13	18-20	24-26	38-39
Max. Pressure in drain space [bar]	300			
Min. oil quantity for brake releasing [cm <sup>3</sup> ]	7-8			
Oil quantity [cm <sup>3</sup> ]	50 - 120			
Weight .../289(290) [kg]	10(11)			

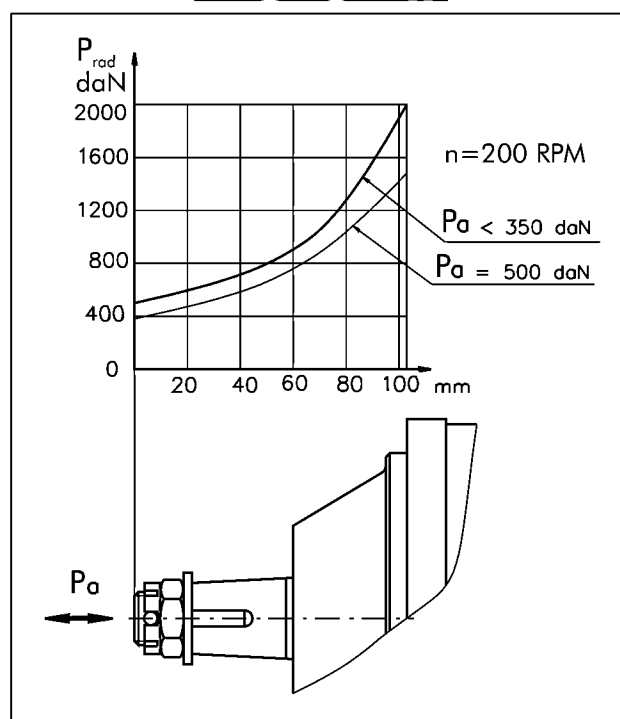
\*Static torque is obtained at working pressure - 0 bar.

## LOAD CURVE

**ELB(LBV) .../289**



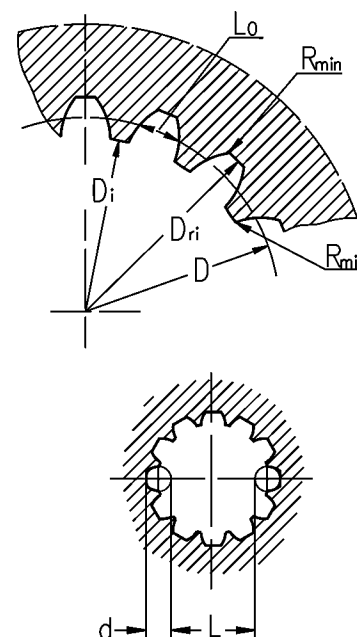
**ELB(LBV) .../290**



## INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

Standard ANSI B92.1-1976, class 5  
[m=2,1166]

Fillet Root Side Fit		ELB(LBV)/289 ELB(LBV)/290	ELB(LBV)/314 ELB(LBV)/315
Number of Teeth	z	12	16
Diametral Pitch	DP	12/24	12/24
Pressure Angle		30°	30°
Pitch Dia.	D [mm]	25,4	33,8656
Major Dia.	D <sub>ri</sub> [mm]	28,0 <sub>-0,1</sub>	38,4 <sup>+0,4</sup>
Minor Dia.	D <sub>i</sub> [mm]	23,0 <sup>+0,033</sup>	32,15 <sup>+0,06</sup>
Space Width [Circular]	L <sub>o</sub> [mm]	4,308±0,020	4,516±0,037
Fillet Radius	R <sub>min</sub> [mm]	0,2	0,5
Max. Measurement between Pin	L [mm]	17,62 <sup>+0,15</sup>	26,9 <sup>+0,10</sup>
Pin Dia.	d [mm]	4,835±0,001	4,835±0,001
Corrected	x.m [mm]	+0,8	+1,0



### ORDER CODE

1	2	3	4	5	6	7
	/		-			

#### Pos. 1 - Type

- ELB** - Euro Disc Brake
- LBV** - Disc Brake for very short motor V - OSV

#### Pos. 2 - Design code

- 288** - for OP, OR and OS Motors
- 289** - for OSS and OSV Motors
- 290** - for OSS and OSV Motors (Wheel Mount)

#### Pos. 3 - Input Shaft Hole\*

**C, CO, SH, CB, SB**

#### Pos. 4 - Static Torque code (See Specification data)

**7, 14, 21, 32, 43, 63**

#### Pos. 5 - Output Shaft Extensions\*\*

- C\*** - ø25 straight, Parallel key A8x7x32 DIN 6885
- CO\*** - ø1" straight, Parallel key 1/4"x1/4"x1 1/4" BS46
- SH\*** - ø25,32 splined BS 2059 (SAE 6B)
- SA\*** - ø24,5 splined B25x22 DIN 5482
- CB** - ø32 straight, Parallel key A10x8x45 DIN 6885
- KB** - ø35 tapered 1:10, Parallel key B6x6x20 DIN6885

#### Pos. 6 - Option (Paint)\*\*\*

- omit - no Paint
- P** - Painted
- PC** - Corrosion Protected Paint

#### Pos. 7 - Design Series

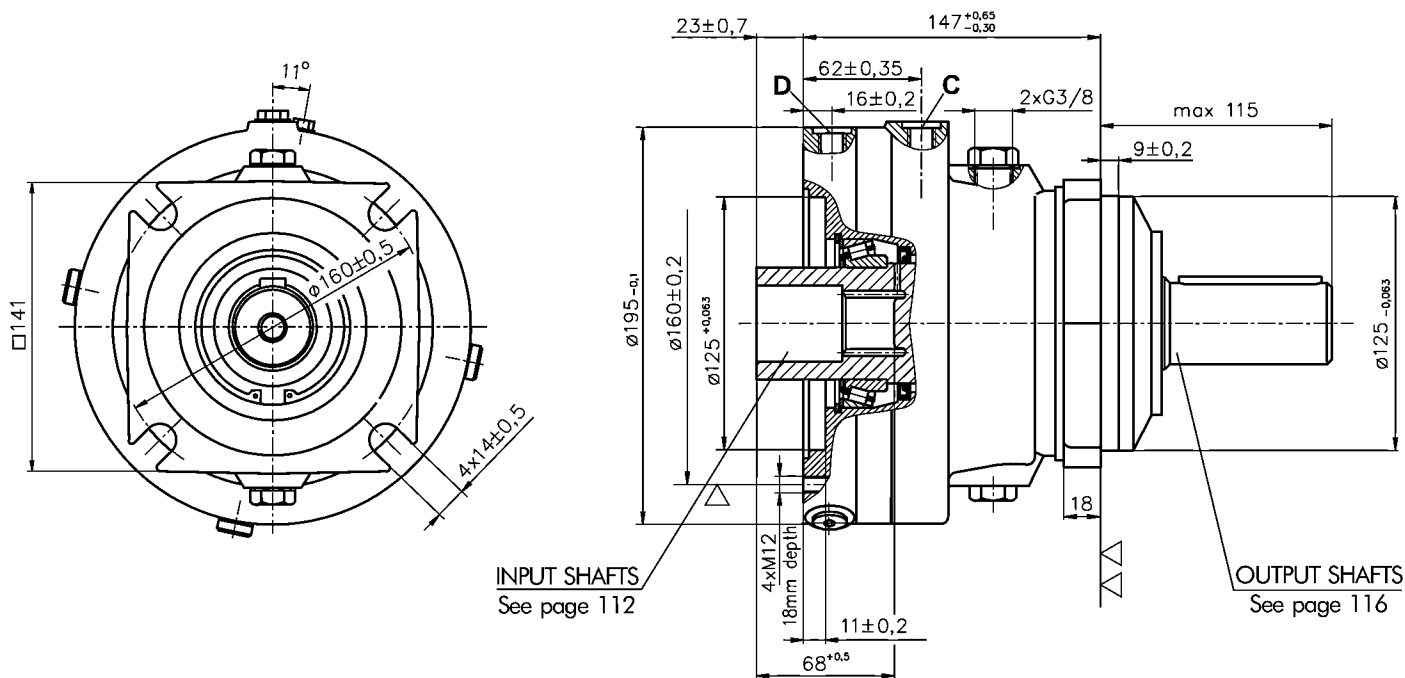
- omit - Factory specified

#### NOTES:

- \* Used for ELB/288 only (see page ELB LBV-03).
- \*\* The permissible output torque for shafts must be not exceeded!  
For Max. Torque values see data on page ELB LBV-03 and ELB LBV-06.
- \*\*\* The color is by customer's request.  
The Disc Brakes are mangano-phosphatized as standard.

## HYDRAULIC DISC BRAKES FOR FLANGE ATTACHMENT TO OTS AND OTV HYDRAULIC MOTORS

### TYPE ELB/314



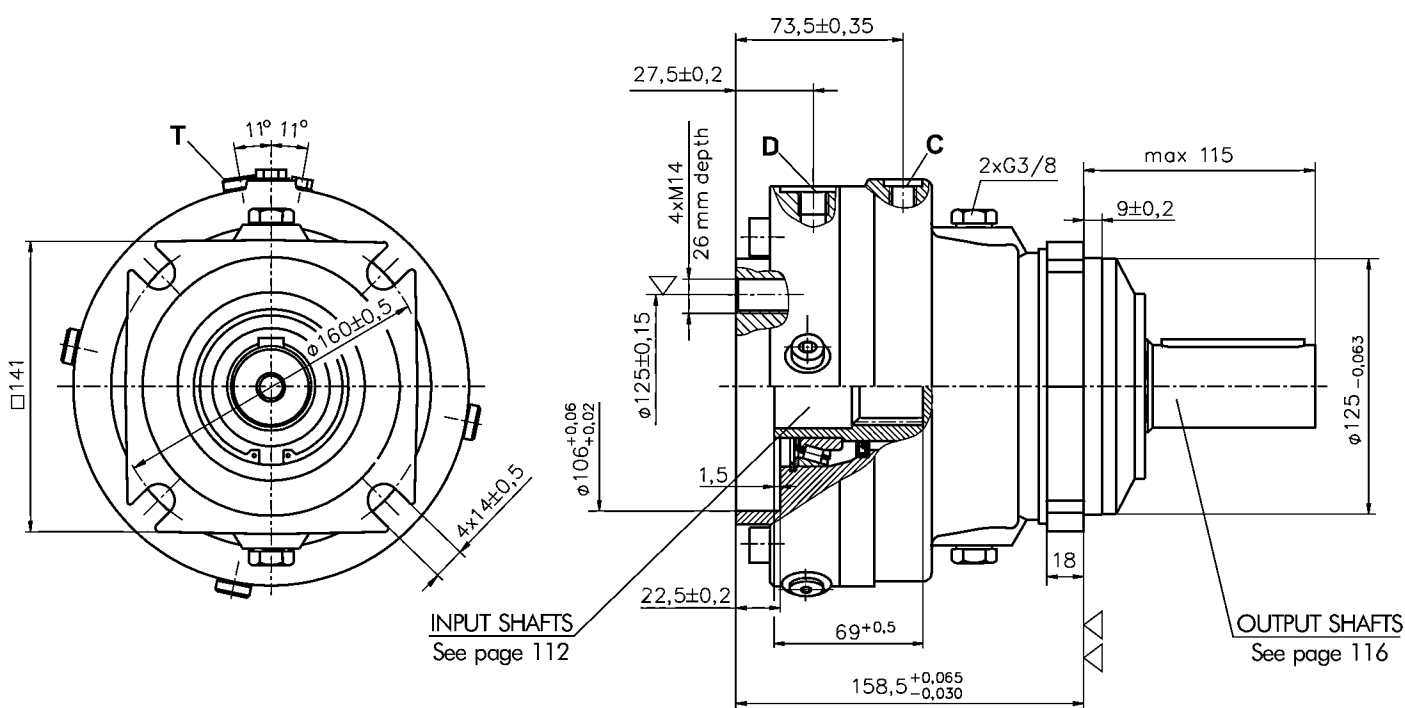
▽- Place for attachment  
(tightening torque for bolt M12 - 8.8 - 8,5 daNm)

▽▽- Place for attachment

**C** : Brake release Port - G $\frac{1}{4}$ , 9 mm depth

**D** : Drainage tap - G $\frac{1}{4}$ , 9 mm depth

### TYPE LBV/314



▽- Place for attachment  
(tightening torque for bolt M14 - 8.8 - 14 daNm)

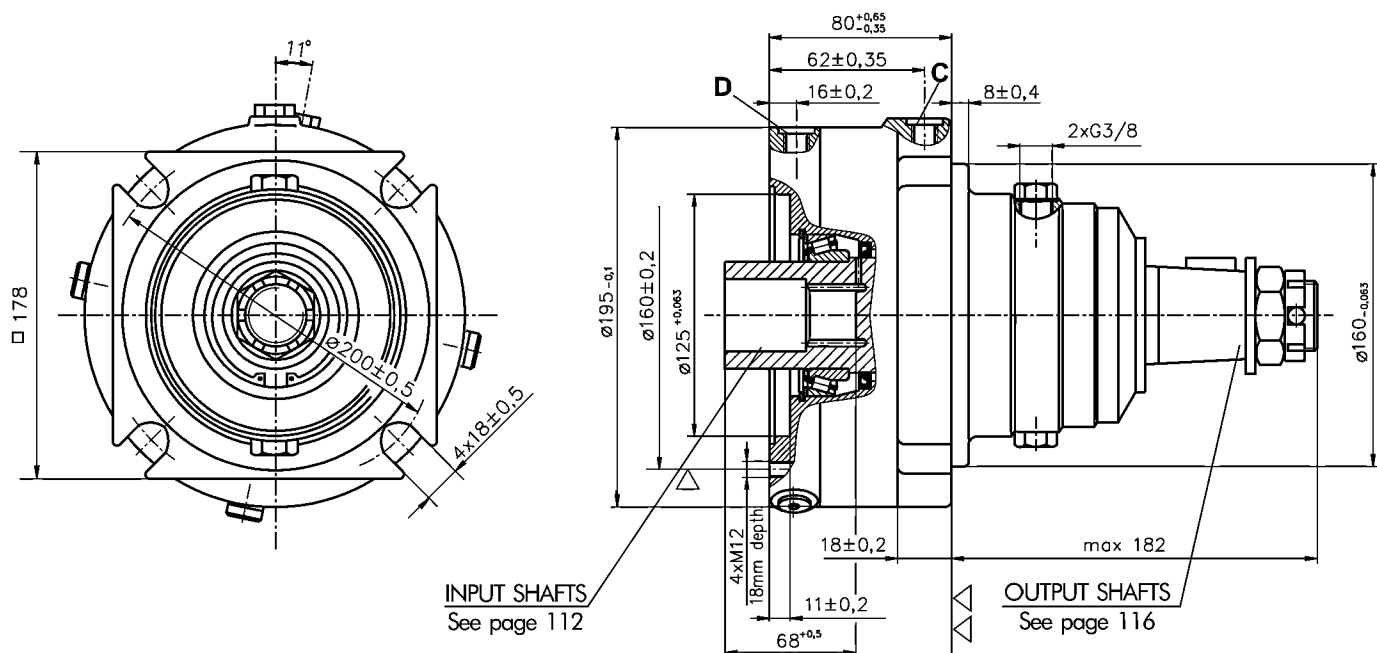
▽▽- Place for attachment

**C** : Brake release Port - G $\frac{1}{4}$ , 9 mm depth

**D,T** : Drainage tap - G $\frac{1}{4}$ , 9 mm depth

## HYDRAULIC DISC BRAKES FOR FLANGE ATTACHMENT TO OTS AND OTV HYDRAULIC MOTORS

### TYPE ELB/315



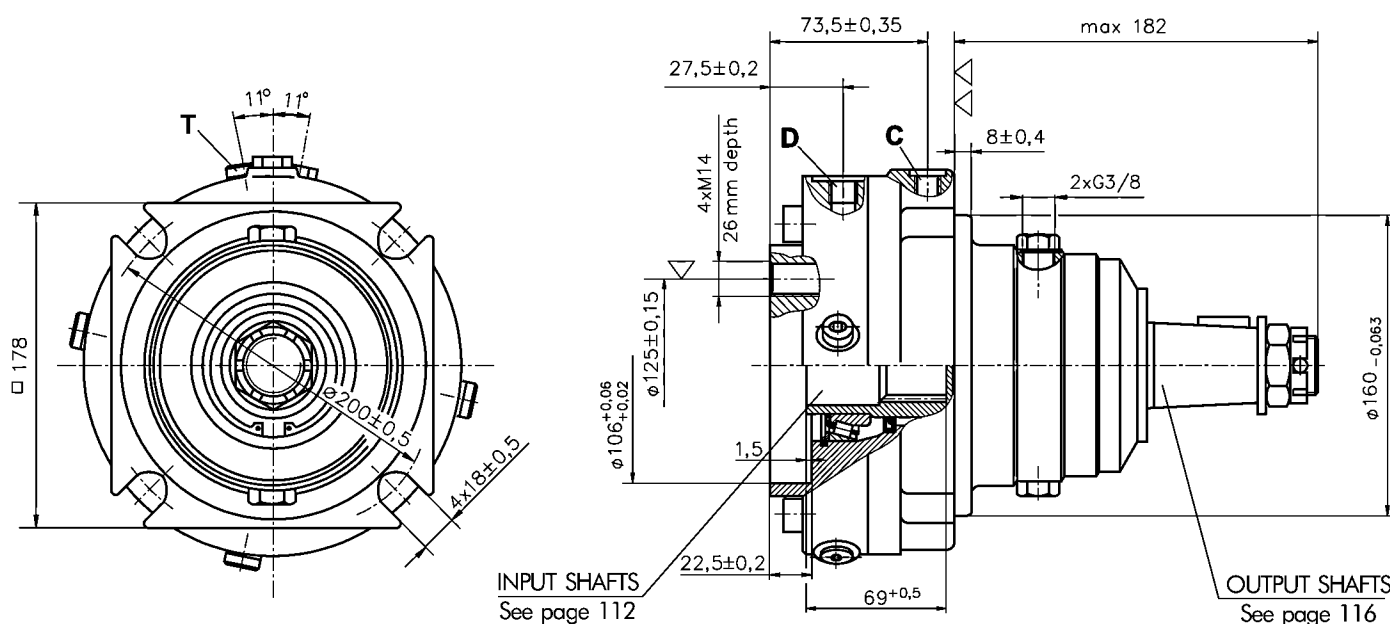
▽- Place for attachment  
(tightening torque for bolt M12 - 8.8 - 8,5 daNm)

▽▽- Place for attachment

**C** : Brake release Port - G $\frac{1}{4}$ , 9 mm depth

**D** : Drainage tap - G $\frac{1}{4}$ , 9 mm depth

### TYPE LBV/315



▽- Place for attachment  
(tightening torque for bolt M14 - 8.8 - 14 daNm)

▽▽- Place for attachment

**C** : Brake release Port - G $\frac{1}{4}$ , 9 mm depth

**D,T** : Drainage tap - G $\frac{1}{4}$ , 9 mm depth

## HYDRAULIC DISC BRAKES FOR FLANGE ATTACHMENT TO OTS AND OTV HYDRAULIC MOTORS

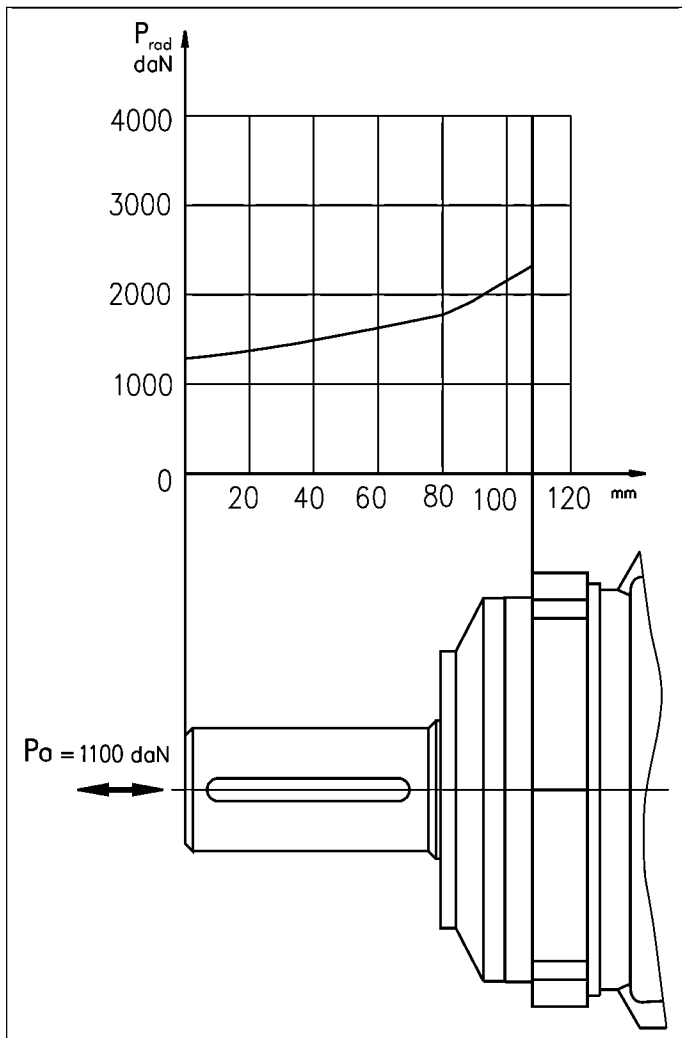
### SPECIFICATION DATA

Description <b>ELB/314(315)</b> <b>LBV/314(315)</b>		<b>21</b>	<b>29</b>	<b>43</b>	<b>65</b>	<b>85</b>	<b>110</b>	<b>130</b>
*Static Torque	[daNm]	18-23	28-33	42-46	61-70	83-92	108-118	126-136
Opening Pressure	min	4-5	6-7	9-10	13-15	18-20	23-25	27-29
	max	300						
Min. oil quantity for brake releasing	[cm <sup>3</sup> ]	8-9						
Oil quantity	[cm <sup>3</sup> ]	150-300						
Max. Pressure in drain space	[bar]	5						
Weight for .../314(315)	[kg]	24(25)						

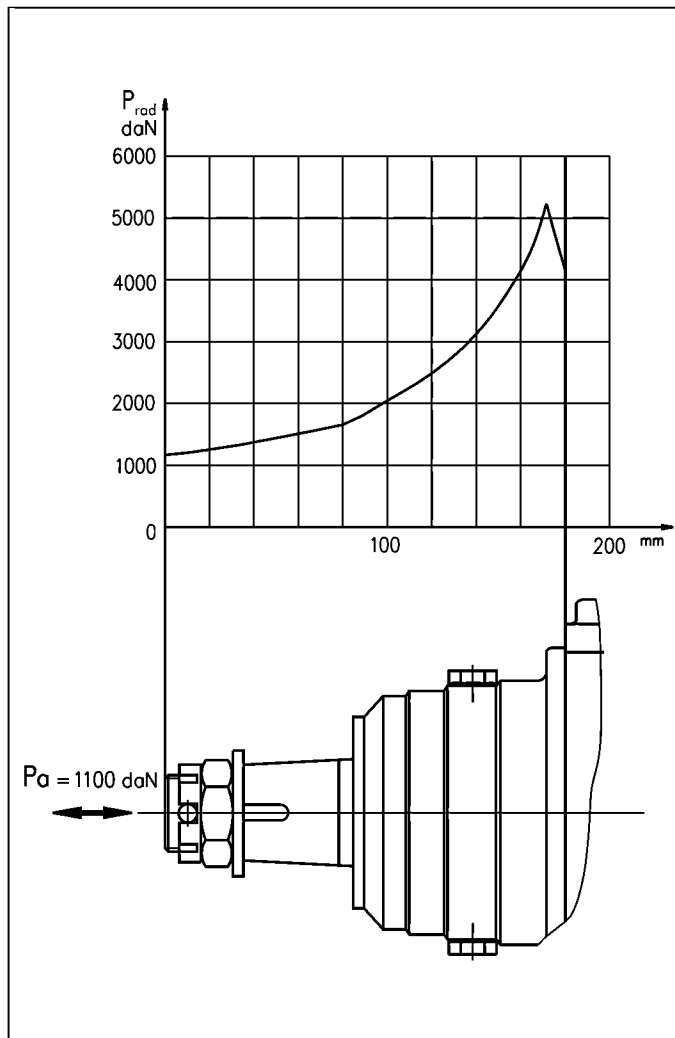
\*Static torque is obtained at working pressure - 0 bar.

### LOAD CURVE

**ELB(LBV) ... /314**

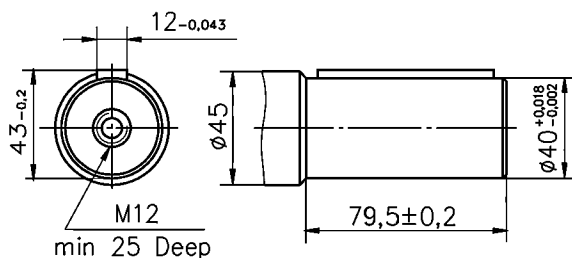


**ELB(LBV) ... /315**

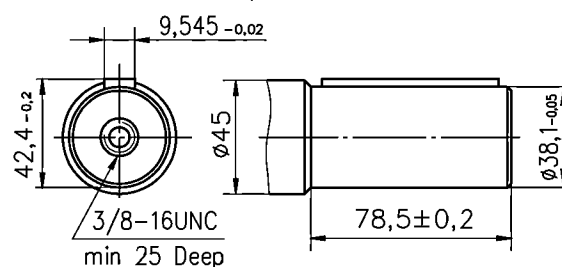


## OUTPUT SHAFT EXTENSIONS

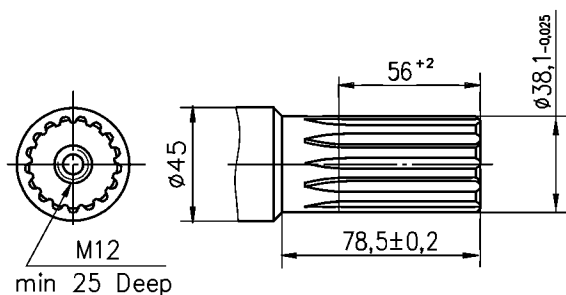
**C** -  $\varnothing 40$  straight, Parallel key A12x8x70 DIN 6885  
Max. Torque 132,8 daNm



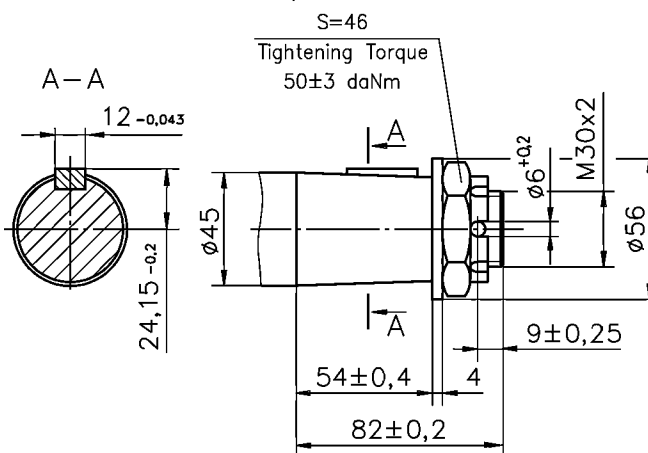
**CO** -  $\varnothing 1\frac{1}{2}$ " straight, Parallel key  $\frac{3}{8}$ " x  $\frac{3}{8}$ " x  $2\frac{1}{4}$ " BS46  
Max. Torque 132,8 daNm



**SH** -  $\varnothing 1\frac{1}{2}$ " splined 17T, DP12/24 ANSI B92.1-1976  
Max. Torque 132,8 daNm



**K** - tapered 1:10, Parallel key B12x8x28 DIN 6885  
Max. Torque 210,7 daNm



## ORDER CODE

1	2	3	4	5	6
	/	-			

Pos. 1 - **Type**

- ELB** - Euro Disc Brake
- LBV** - Disc Brake for very short motor V- OTV

Pos. 2 - **Design code**

- 314** - for OTS and OTV Motors
- 315** - for OTS and OTV Motors (Wheel Mount)

Pos. 3 - **Static Torque code** (See Specification data)

21, 29, 43, 63, 65, 85, 110, 130

Pos. 4 - **Output Shaft Extensions\***

- C** -  $\varnothing 40$  straight, Parallel key A12x8x70 DIN 6885
- CO** -  $\varnothing 1\frac{1}{2}$ " straight, Parallel key  $\frac{3}{8}$ " x  $\frac{3}{8}$ " x  $2\frac{1}{4}$ " BS46
- SH** -  $\varnothing 1\frac{1}{2}$ " splined 17T, ANSI B92.1-1976
- K** -  $\varnothing 45$  tapered 1:10, Parallel key B12x8x28 DIN6885

Pos. 5 - **Option (Paint)\*\***

- omit - no Paint
- P** - Painted
- PC** - Corrosion Protected Paint

Pos. 6 - **Design Series**

- omit - Factory specified

### NOTES:

\* The permissible output torque for shafts must be not exceeded!

\*\* The color is by customer's request.

The Disc Brakes are mangano-phosphatized as standard.



# INTEGRATED BRAKE-MOTOR UNIT SV, TV SERIES

## INTRODUCTION

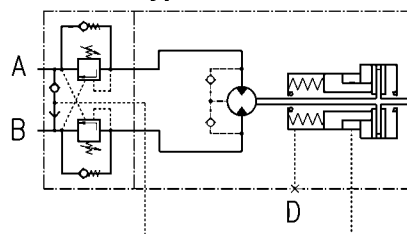
The Meta brakes are intended for hydraulic drive of operating systems, where the block and the release of the drive must be by means of hydraulic energy. The system has small overall dimensions and minimum weight. In the package are combined efficient hydraulic power of hydromotors type OS or OT with a reliable integral hydraulic disc brake type ELB and a valve block type KPBR.

The brake torque at the spring applied, hydraulically released brake reaches 14500 in-lb [160daNm].

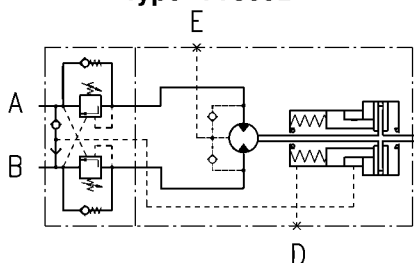
Typical applications include wheel drives, conveyors, rotators, positioners, winches, swing drives and dooropeners.

The Meta brakes are intended to operate as static or parking brakes. System circuitry must be designed to bring the load to a stop before applying the brake.

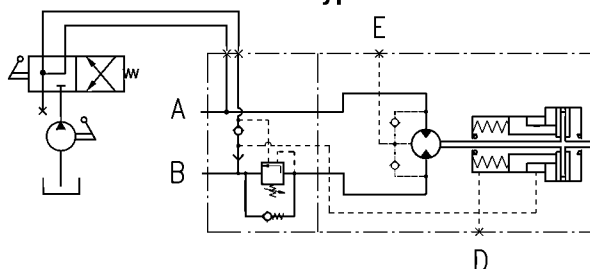
**Motor/Brake Type SV500B**



**Motor/Brake Type TV500B**



**Motor/Brake Type TV500BC**



## SPECIFICATION DATA

Type		SV500B	TV500B
Displacement, in. <sup>3</sup> /rev. [cm. <sup>3</sup> /rev.]		29 [475,3]	29 [475]
Max. Speed, RPM	Cont.	16	84
	Int.*	25	115
Max. Torque, in-lb [daNm]	Cont.	7260 [82]	10 000 [114]
	Int.*	8420 [95]	12 000 [135]
Max. Output, HP [kW]	Cont.	1.3 [0,9]	11 [8,2]
	Int.*	3.3 [2,4]	17 [12,5]
Max. Pressure Drop, PSI [bar]	Cont.	1800 [125]	2500 [170]
	Int.*	2100 [145]	2900 [200]
Max. Oil Flow, GPM [lpm]	Cont.	2 [8]	10,5 [40]
	Int.*	3 [12]	14,5 [55]
Max. Return Pressure without Drain Line or Max. Pressure in Drain Line, PSI [bar]		1450 [100]	1088 [75]
Min. Starting Torque, in-lb [daNm]	At max. press. drop Cont.	6400 [72]	8400 [95]
	At max. press. drop Int.*	6650 [75]	9940 [112]
Min. Speed**, RPM		5	5
Static Torque for the Brake***, in-lb [daNm]		14 515 [164]	14 515 [164]
Release Pressure ±10%, PSI [bar]	initial	363...406 [25...28]	363...406 [25...28]
	full	449.6 [31]	449.6 [31]
Max. Steering Pressure, PSI [bar]		3553 [245]	3553 [245]
Max. Pressure in Drain Space for the Brake, PSI [bar]		7 [0,5]	7 [0,5]
Pilot Ratio for the Valve		4,25:1	4,25:1

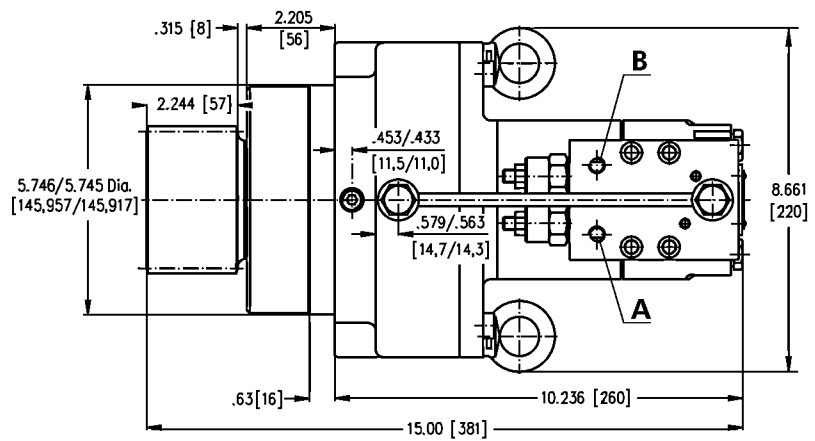
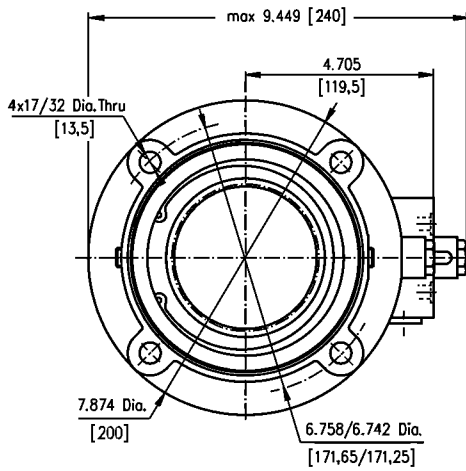
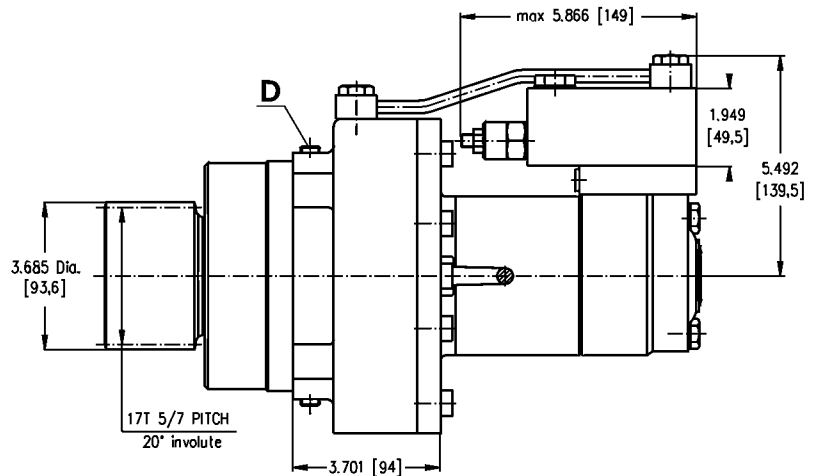
\* Intermittent operation: the permissible values may occur for max. 10% of every minute.

\*\* For speeds of 5 RPM lower than given, consult factory or your regional manager.

\*\*\* Static torque is obtained at working pressure - 0 PSI [0 bar].

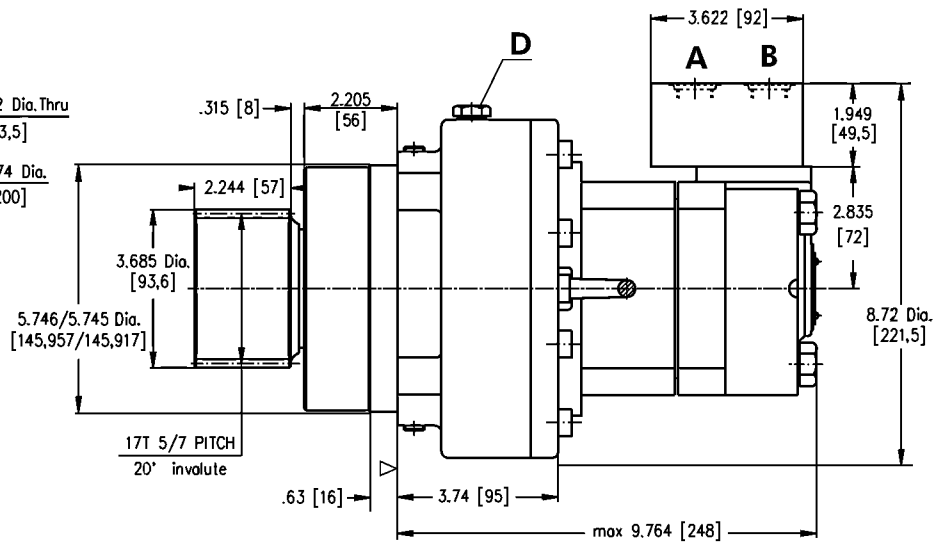
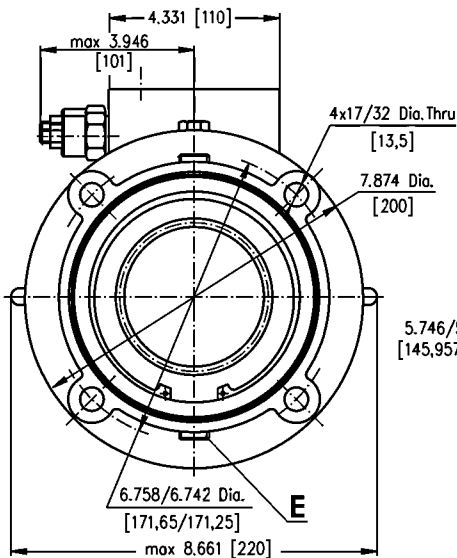
### OUTLINE DIMENSIONS REFERENCE OF SV500B

**A,B:** 7/16-20 UNF  
**D :** 1/4-18 NPTF



### OUTLINE DIMENSIONS REFERENCE OF TV500B

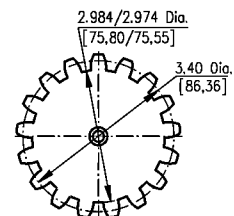
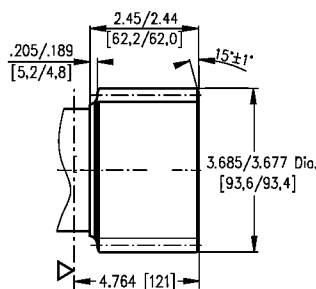
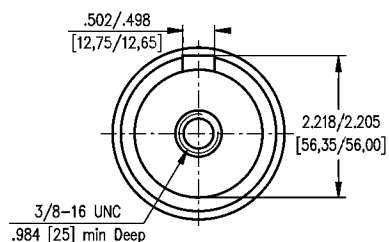
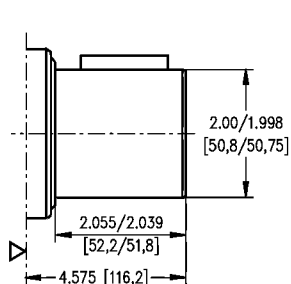
**A,B :** 7/8-14 UNF  
**D :** 1/4-18 NPTF  
**E :** G1/4



## SHAFT EXTENSIONS

**C** - 2" [50,8] Straight key 1/2"x1/2"x1 1/2"

17T 5/7 PITCH Splined



∇ - Motor Mounting Surface

## ORDER CODE

1	2	3	4	5	6	7	8
V	500	B					

<table border="0" style="width: 100%;"> <tr> <td style="border: 1px solid black; padding: 2px;">Pos.1 - <b>Type</b></td> <td style="border: 1px solid black; padding: 2px;">S - motor OS</td> <td style="border: 1px solid black; padding: 2px;">T - motor OT</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">Pos.2 - <b>Displacement code</b></td> <td colspan="2"></td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">Pos.3 - <b>Brake</b></td> <td colspan="2"></td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">Pos.4 - <b>Type of a Brake</b></td> <td colspan="2"></td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">Pos.5 - <b>Shaft Extensions</b></td> <td colspan="2">omit - 17T 5/7 PITCH Splined</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">C*</td> <td colspan="2">- 2" [50,8] Straight key 1/2"x1/2"x1 1/2"</td> </tr> </table>	Pos.1 - <b>Type</b>	S - motor OS	T - motor OT	Pos.2 - <b>Displacement code</b>			Pos.3 - <b>Brake</b>			Pos.4 - <b>Type of a Brake</b>			Pos.5 - <b>Shaft Extensions</b>	omit - 17T 5/7 PITCH Splined		C*	- 2" [50,8] Straight key 1/2"x1/2"x1 1/2"		<table border="0" style="width: 100%;"> <tr> <td style="border: 1px solid black; padding: 2px;">Pos.6 - <b>Valve</b></td> <td></td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">Pos. 7 - <b>Option (Paint)**</b></td> <td>omit - no Paint</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">P</td> <td>- Painted</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">PC</td> <td>- Corrosion Protected Paint</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">Pos. 8 - <b>Design Series</b></td> <td>omit - Factory specified</td> </tr> </table>	Pos.6 - <b>Valve</b>		Pos. 7 - <b>Option (Paint)**</b>	omit - no Paint	P	- Painted	PC	- Corrosion Protected Paint	Pos. 8 - <b>Design Series</b>	omit - Factory specified
Pos.1 - <b>Type</b>	S - motor OS	T - motor OT																											
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Pos.4 - <b>Type of a Brake</b>																													
Pos.5 - <b>Shaft Extensions</b>	omit - 17T 5/7 PITCH Splined																												
C*	- 2" [50,8] Straight key 1/2"x1/2"x1 1/2"																												
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Pos. 7 - <b>Option (Paint)**</b>	omit - no Paint																												
P	- Painted																												
PC	- Corrosion Protected Paint																												
Pos. 8 - <b>Design Series</b>	omit - Factory specified																												

**NOTES:**

\* For code name see scheme on page 6.

\*\*Color at customer's request.

The motor/brakes are mangano-phosphatized as standard.

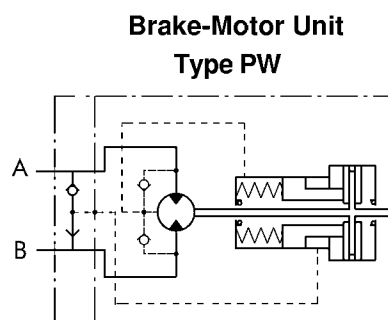
# INTEGRATED BRAKE-MOTOR UNIT PW SERIES

## INTRODUCTION

This Brake-Motor Unit is intended for hydraulic drive of operating systems, where the block and the release of the drive must be by means of hydraulic energy. The system has small overall dimensions and minimum weight.

Typical applications include wheel drives, conveyors, rotators, positioners, winches, swing drives and door openers.

The Meta Brake Motor are intended to operate as static or parking brakes. System circuitry must be designed to bring the load to a stop before applying the brake.



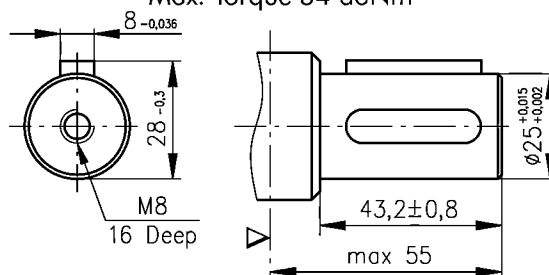
## SPECIFICATION DATA

Type		PW 160	PW 400
Displacement, [cm. <sup>3</sup> /rev.]		158,4	396
Max. Speed, RPM	Cont.	300	150
	Int.*	370	190
Max. Torque, [daNm]	Cont.	26,4	28,5
	Int.*	37,8	36,0
Max. Pressure Drop, [bar]	Cont.	120	55
	Int.*	175	70
Max. Oil Flow, [lpm]	Cont.	60	60
	Int.*	75	75
Static Torque, [daNm]		41...45	41...45
Release Pressure, [bar]		24...26	24...26
Max. Inlet pressure, [bar]	Cont.	140	140
	Int.*	175	175
Drain line, [bar]	0 - 100 RPM	75	75
	100 - 300 RPM	30	30
L, mm		236	268
L <sub>1</sub> , mm		21,33	53,33

\* Intermittent operation: the permissible values may occur for max. 10% of every minute.

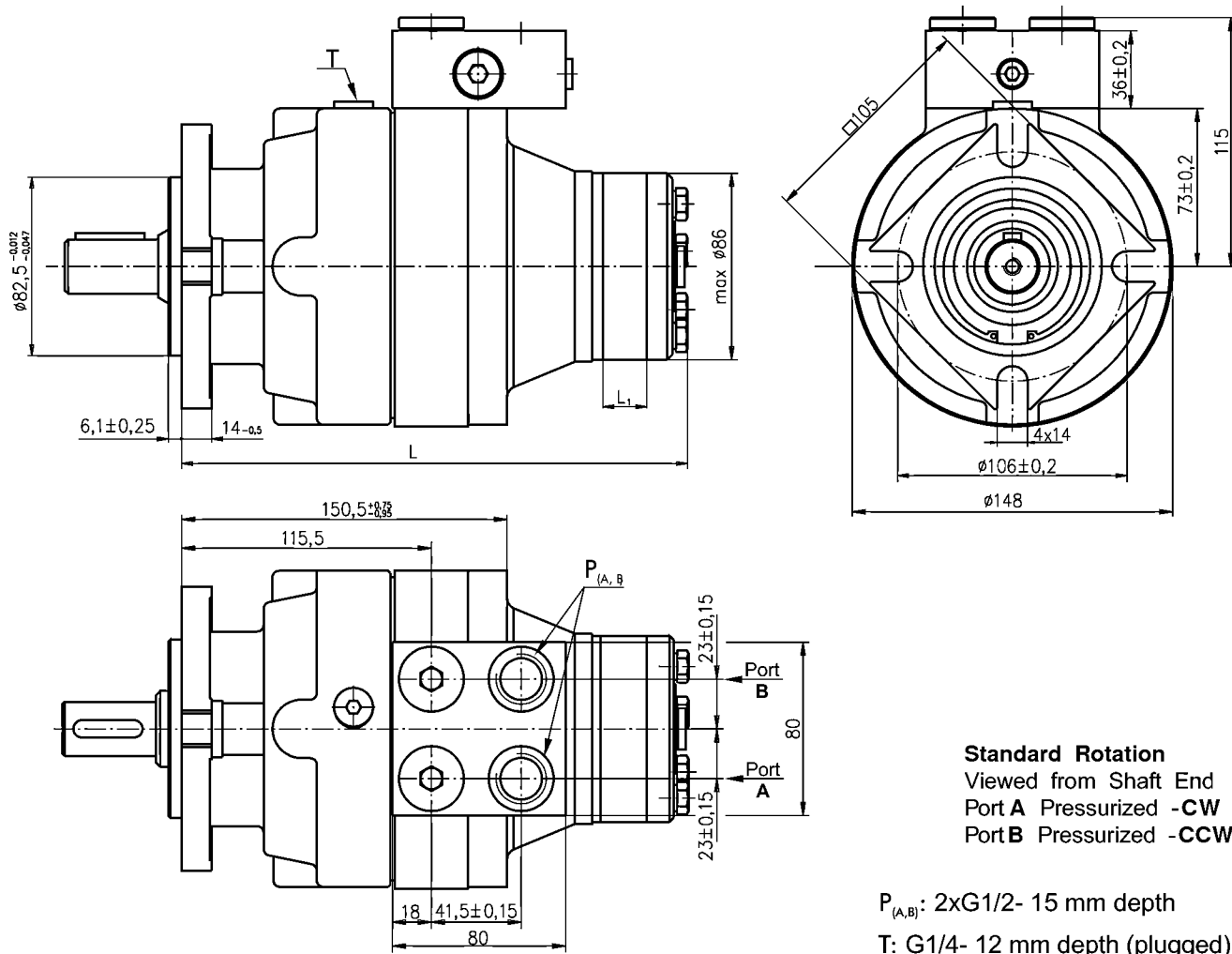
## SHAFT EXTENSIONS

C -  $\varnothing 25$  straight, Parallel key A8x7x32 DIN 6885  
Max. Torque 34 daNm



▽ - Motor Mounting Surface

## OUTLINE DIMENSIONS REFERENCE OF PW



## ORDER CODE

1	2	3	4
<b>P</b>	<b>W</b>		

### Pos.1 - Type

**P** - motor OP

### Pos.2 - Displacement code

**160** - 158,4 [cm<sup>3</sup>/rev]

**400** - 396,0 [cm<sup>3</sup>/rev]

### Pos.3 - Option (Paint)\*

omit - no Paint

**P** - Painted

**PC** - Corrosion Protected Paint

### Pos.4 - Design Series

omit - Factory specified

## NOTES:

\* Color at customer's request.

The brake motor is manganophosphatized as standard.

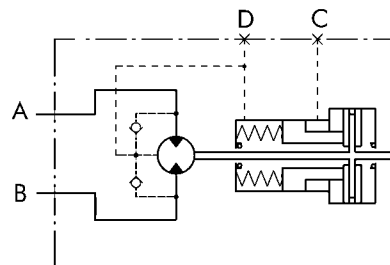
# INTEGRATED BRAKE-MOTOR UNIT TW SERIES

## INTRODUCTION

The Meta Brake-Motor Units are intended for hydraulic drive of operating systems, where the block and the release of the drive must be by means of hydraulic energy. The system has small overall dimensions and minimum weight. In the package are combined efficient hydraulic power of hydromotors type OT 500 with a reliable integral hydraulic disc brake type ELB.

Typical applications include wheel drives, conveyors, rotators, positioners, winches, swing drives and door openers.

The Meta Brake-Motor Units are intended to operate as static or parking brakes. System circuitry must be designed to bring the load to a stop before applying the brake.



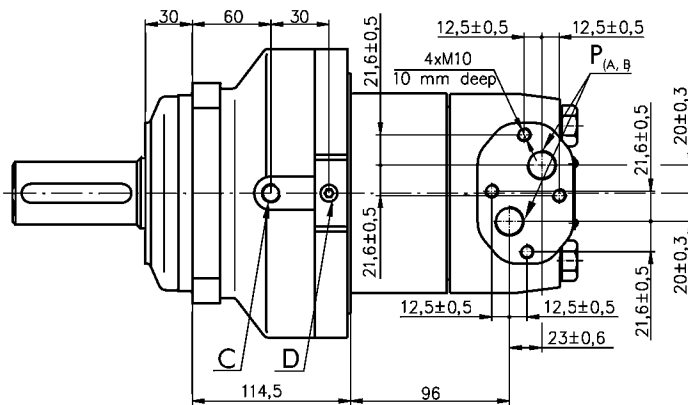
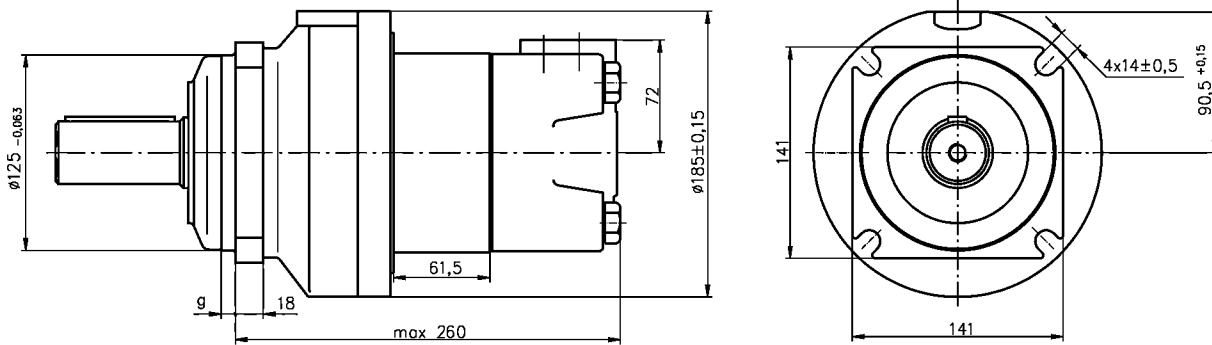
## SPECIFICATION DATA

Type	TW500B314
Displacement, [cm. <sup>3</sup> /rev.]	524
Max. Speed, RPM	200
Max. Torque, [daNm]	Cont. 122 Int.* 137
Max. Output, [kW]	28
Max. Pressure Drop, [bar]	Cont. 160 Int.* 180
Max. Oil Flow, [lpm]	125
Max. Return Pressure without Drain Line or Max. Pressure in Drain Line, [bar]	5
Min. Speed**, RPM	5
Static Torque for the Brake**, [daNm]	142
Release Pressure ±10%, [bar]	24...29
Max. Steering Pressure, [bar]	300

\* Intermittent operation: the permissible values may occur for max. 10% of every minute.

\*\* Static torque is obtained at working pressure - 0 PSI [0 bar].

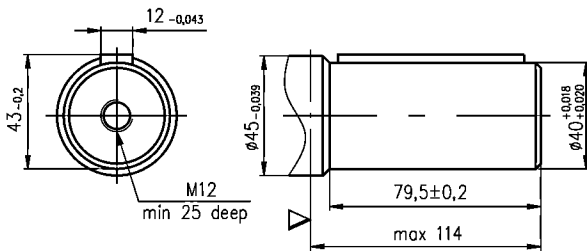
## OUTLINE DIMENSIONS REFERENCE OF TW 500-314 ...



P<sub>(A,B)</sub>: G3/4  
C: G1/4  
D: G1/4

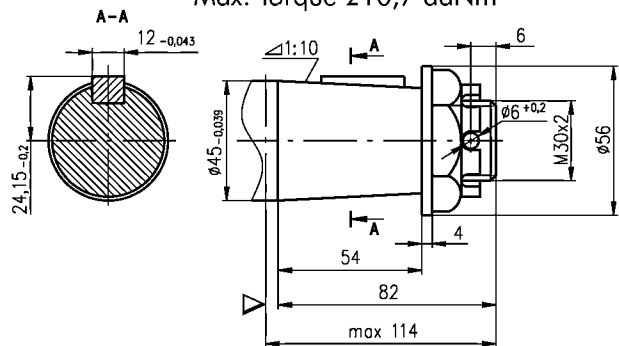
## SHAFT EXTENSIONS

**C** -  $\phi 40$  straight, Parallel key A12x8x70 DIN 6885  
Max. Torque 132,8 daNm



▽ - Motor Mounting Surface

**K** - tapered 1:10, Parallel key B12x8x28 DIN 6885  
Max. Torque 210,7 daNm



## ORDER CODE

1	2	3	4	5
TW	500	-	314	

Pos. 1 - Displacement code

Pos. 2 - Type of a Brake (ELB 314)

Pos. 3 - Shaft Extensions

**C** -  $\phi 40$  straight, Parallel key A12x8x70 DIN 6885

**K** - tapered 1:10, Parallel key B12x8x28 DIN 6885

Pos. 4 - Option (Paint)\*

omit - no Paint

**P** - Painted

**PC** - Corrosion Protected Paint

Pos. 5 - Design Series

omit - Factory specified

## NOTES:

\* Color at customer's request.

The brake-motor unit is mangano-phosphatized as standard.

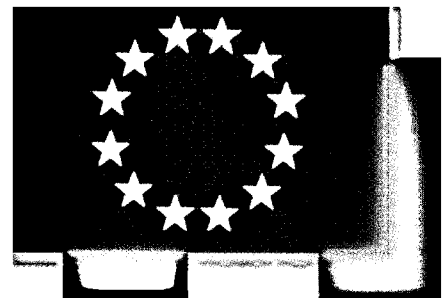
Many thanks to the production company M+S for the use of Technical Drawing



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