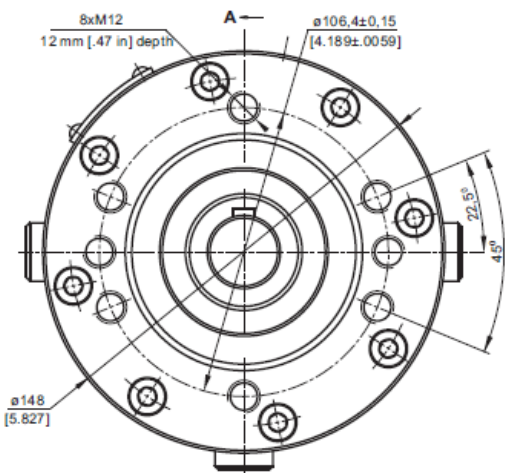
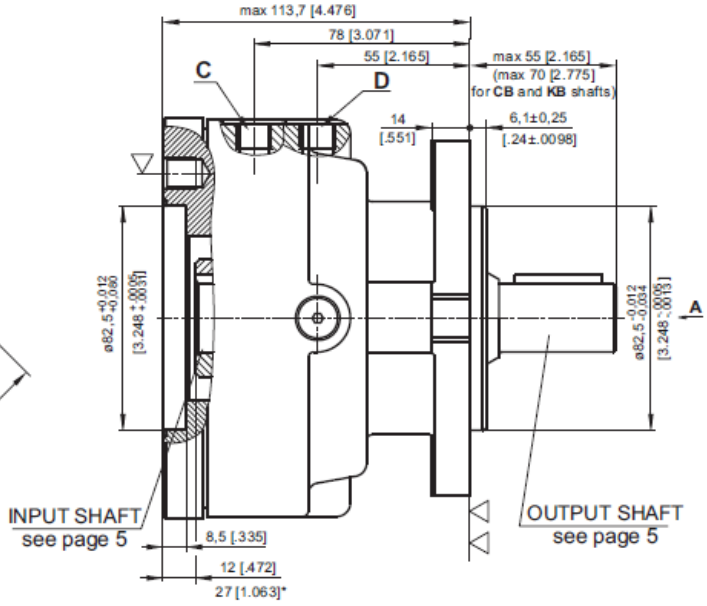
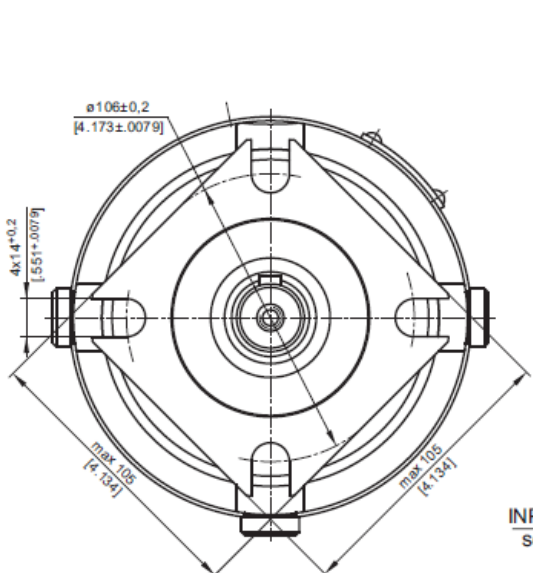




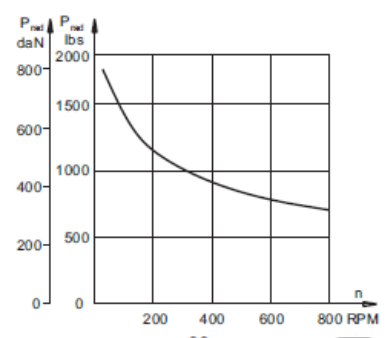
# HIDRÁULICA ROGIMAR

## TYPE LB/288 HYDRAULIC DISC BRAKE FOR FLANGE ATTACHMENT TO MP, MR AND MS HYDRAULIC MOTORS



- ▽ - Place for attachment (tightening torque for screw M12x30 - 8.8 DIN 912 - 7 daNm [620 in-lb])
- ▽▽ - Place for attachment
- C : Brake release Port - G¼, 9 mm [.35 in] depth
- D : Drainage tap - G¼, 9 mm [.35 in] depth
- \* - For Input Shaft Hole Versions SH and SB.

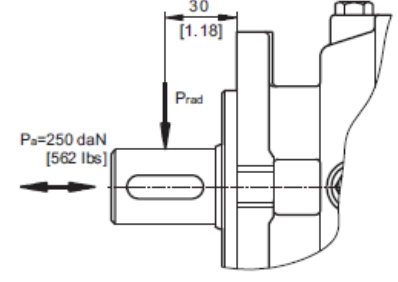
### LOAD CURVE



### SPECIFICATION DATA

Description LB/288...	7	14	21	32	43	63
*Min. Static Torque, daNm [lb-in]	6-8 [531-708]	13-15 [1150-1327]	20-22 [1770-1947]	31-34 [2743-3009]	41-45 [3628-3982]	61-64 [5399-5665]
Opening Pressure, min bar [PSI]	4-8 [58-116]	9-16 [130-232]	12-13 [174-188]	18-20 [260-290]	24-26 [348-377]	38-39 [550-565]
max	300 [4350]					
Min. oil quantity for brake releasing, cm³ [in³]	7 - 8 [427 - .488]					
Oil volume cm³ [in³]	50 - 120 [3.5 - 7.35]					
Max. Pressure in drain space, bar [PSI]	0,5 [7.25]					
Weight, kg [lb]	9 [19.8]					

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



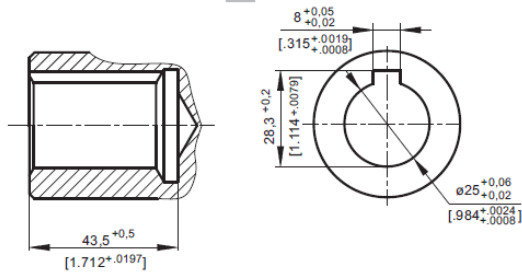
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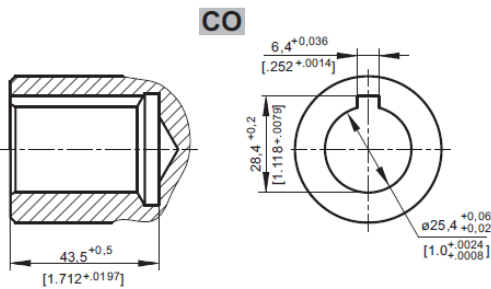
# HIDRÁULICA ROGIMAR

## INPUT SHAFT HOLES

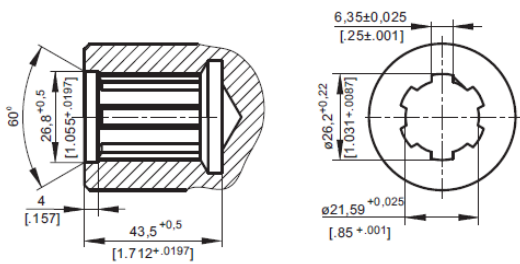
**C**



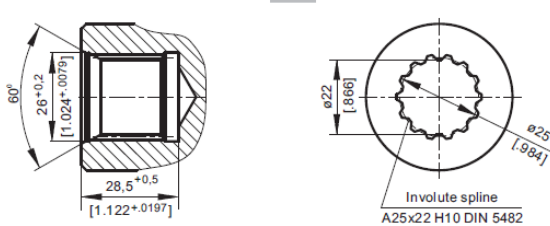
**CO**



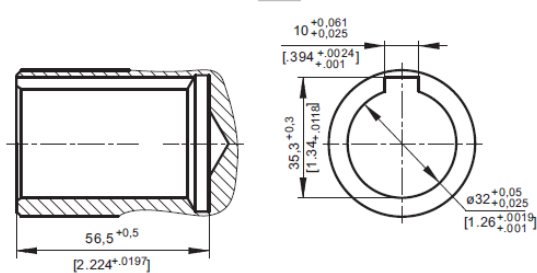
**SH**



**SB**

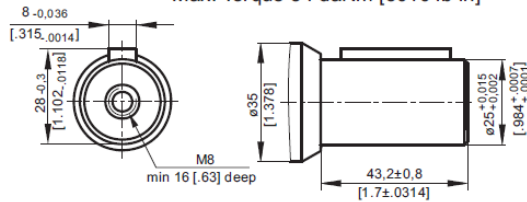


**CB**

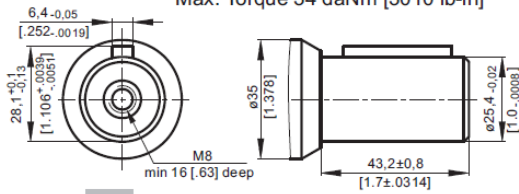


## OUTPUT SHAFT EXTENSIONS

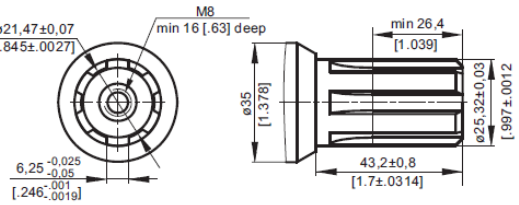
**C** -  $\phi 25$  straight, Parallel key A8x7x32 DIN 6885  
Max. Torque 34 daNm [3010 lb-in]



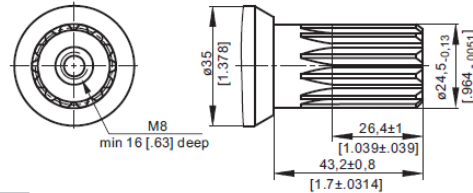
**CO** -  $\phi 1$ " straight, Parallel key 1/4"x1/4"x1 1/4" BS46  
Max. Torque 34 daNm [3010 lb-in]



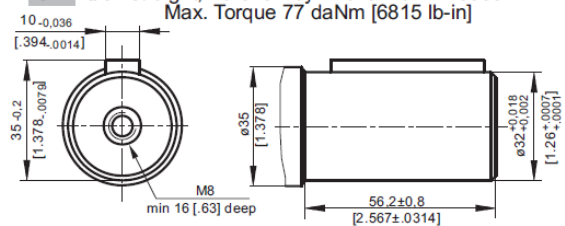
**SH** - splined, BS 2059 (SAE 6B)  
Max. Torque 40 daNm [3540 lb-in]



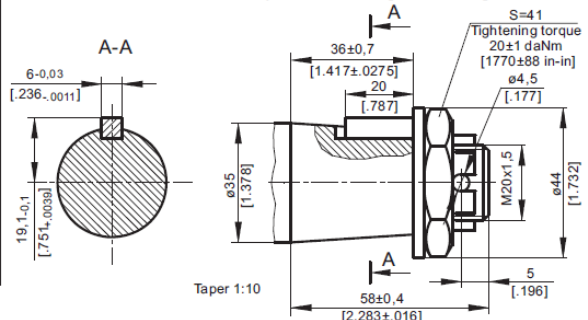
**SA** - splined, B25x22h9 DIN 5482  
Max. Torque 40 daNm [3540 lb-in]



**CB** -  $\phi 32$  straight, Parallel key A10x8x45 DIN 6885  
Max. Torque 77 daNm [6815 lb-in]



**KB** - tapered 1:10, Parallel key B6x6x20 DIN 6885  
Max. Torque 95 daNm [8400 lb-in]



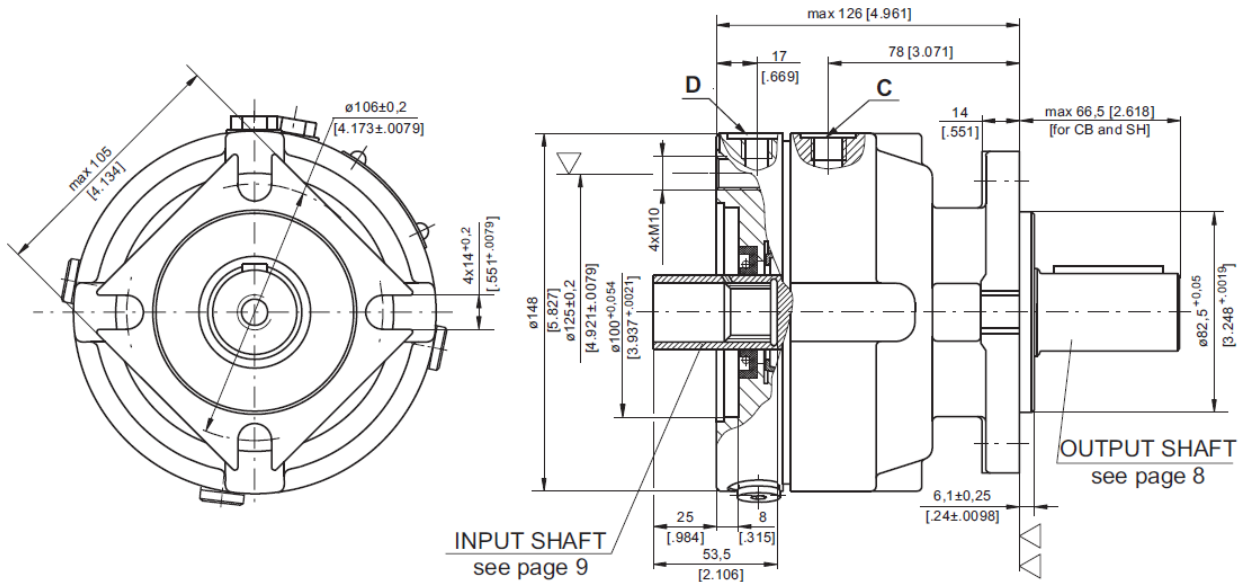
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# HIDRÁULICA ROGIMAR

## HYDRAULIC DISC BRAKE FOR FLANGE ATTACHMENT TO MSS AND MSV HYDRAULIC MOTORS

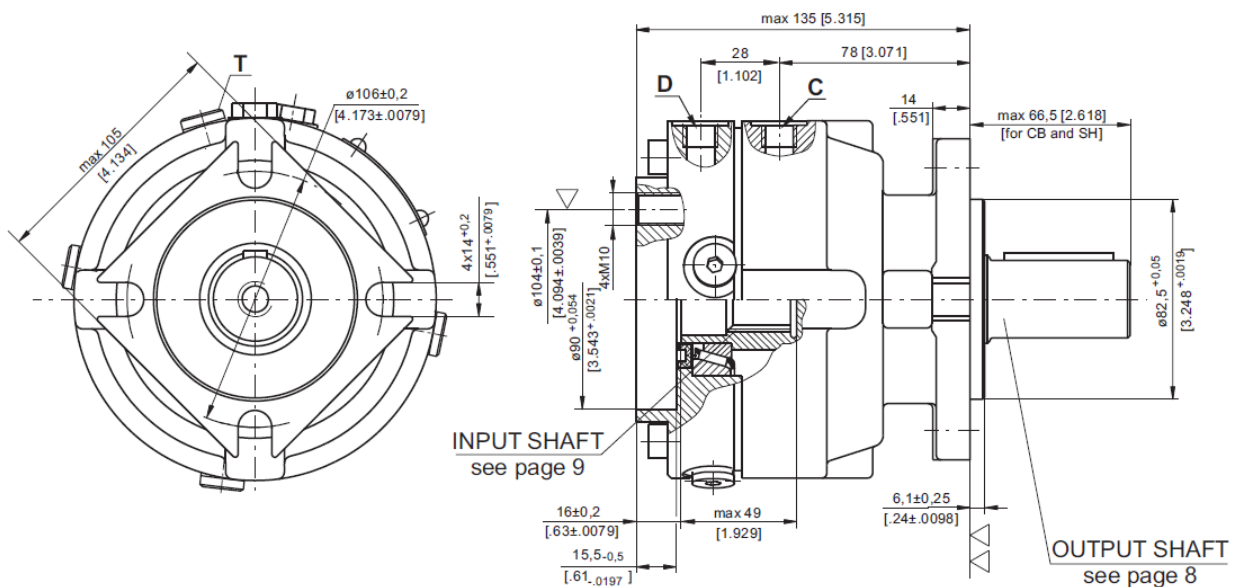
### TYPE LBS/289



- ▽ - Place for attachment (tightening torque for screw M10x35 - 8.8 DIN 912 - 5 daNm [440 lb-in])
- ▽▽ - Place for attachment



### TYPE LBV/289



- ▽ - Place for attachment (tightening torque for screw M10 - 8.8 DIN 912 - 5 daNm [440 lb-in])
- ▽▽ - Place for attachment
- C : Brake release Port - G $\frac{1}{4}$ , 9 mm [.35 in] depth
- D, T: Drainage tap - G $\frac{1}{4}$ , 9 mm [.35 in] depth

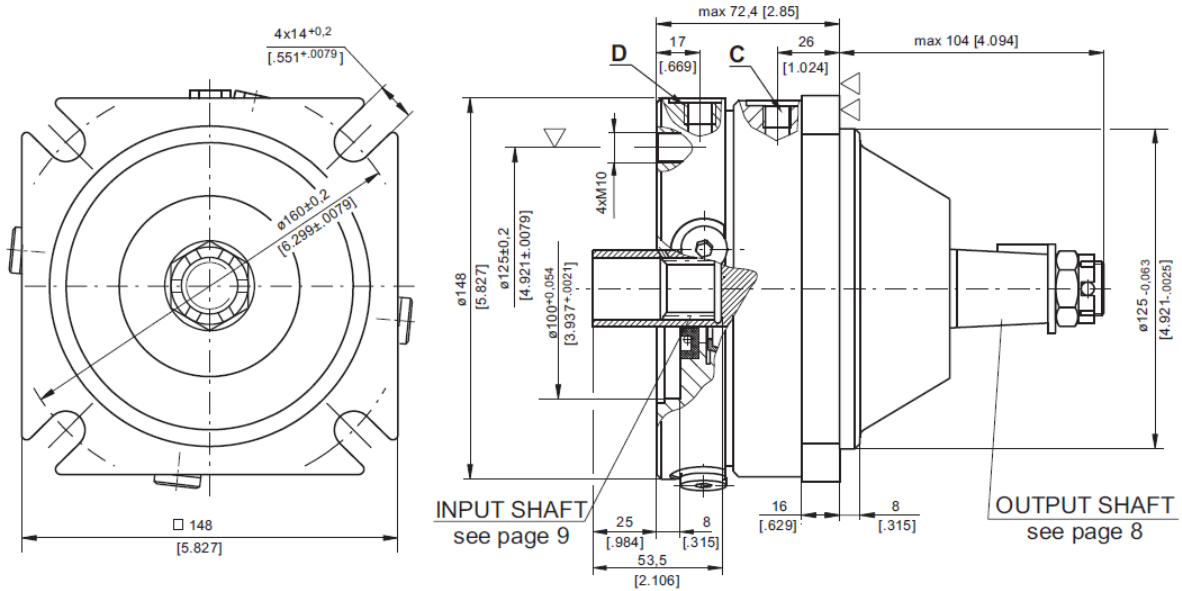
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# HIDRÁULICA ROGIMAR

## HYDRAULIC DISC BRAKE FOR FLANGE ATTACHMENT TO MSS AND MSV HYDRAULIC MOTORS

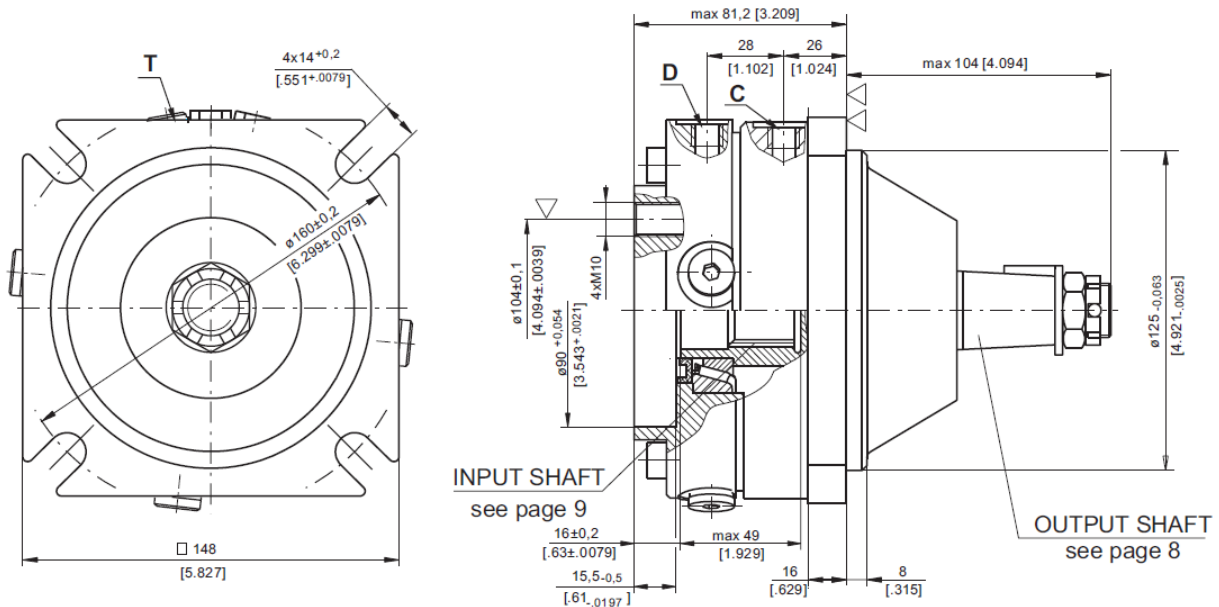
### TYPE LBS/290



- ▽ - Place for attachment  
(tightening torque for screw M10x35 - 8.8 DIN 912 - 5 daNm [440 lb-in])
- ▽▽ - Place for attachment



### TYPE LBV/290



- ▽ - Place for attachment  
(tightening torque for screw M10 - 8.8 DIN 912  
- 5 daNm [440 lb-in])
- ▽▽ - Place for attachment

- C : Brake release Port - G $\frac{1}{4}$ , 9 mm [.35 in] depth
- D, T: Drainage tap - G $\frac{1}{4}$ , 9 mm [.35 in] depth

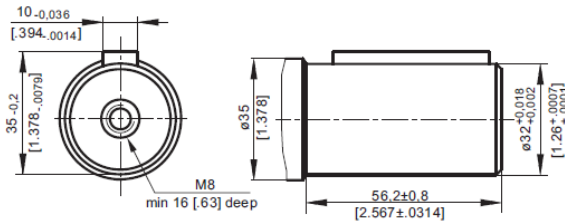
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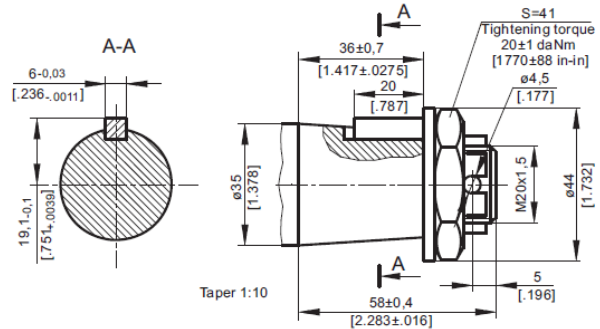
# HIDRÁULICA ROGIMAR

## OUTPUT SHAFT EXTENSIONS

**CB** -  $\phi 32$  straight, Parallel key A10x8x45 DIN 6885  
Max. Torque 77 daNm [6815 lb-in]

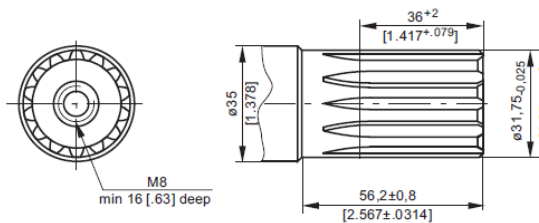


**KB** - tapered 1:10, Parallel key B6x6x20 DIN 6885  
Max. Torque 95 daNm [8400 lb-in]



## SPECIFICATION DATA

**SH** -  $\phi 1\frac{1}{4}$ " splined 14T, DP12/24 ANS B92.1-1970  
Max. Torque 95 daNm [8400 lb-in]



Description LBS/289(290) LBV/289(290)	21	32	43	63
*Min. Static Torque, daNm [lb-in]	20-22 [1770-1947]	31-34 [2743-3009]	41-45 [3628-3982]	61-64 [5399-5665]
Opening Pressure, bar [PSI]	min 12-13 [174-188]	18-20 [260-290]	24-26 [348-377]	38-39 [550-565]
	max 300 [4350]			
Min. oil quantity for brake releasing cm <sup>3</sup> [in <sup>3</sup> ]	7 - 8 [427 - .488]			
Oil volume cm <sup>3</sup> [in <sup>3</sup> ]	50 - 120 [3.05 - 7.35]			
Max. Pressure in drain space bar [PSI]	5 [72]			
Weight kg [lb]	9 [19.8]			

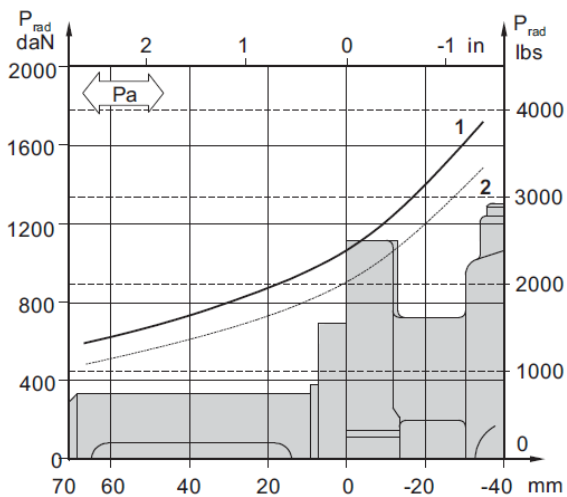
\*Static torque is obtained at working pressure - 0 bar [0 PSI].

## LOAD CURVE

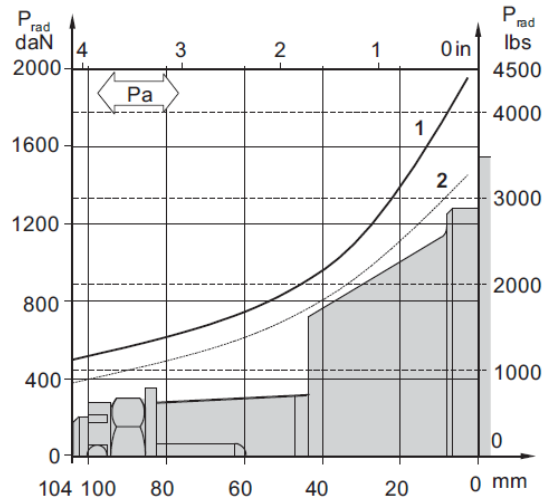
The curve applies to a B10 bearing life of 3000 hours at 200 RPM.

- 1: Pa < 350 daN [787 lbs]
- 2: Pa = 500 daN [1125 lbs]

**LBS(V)/289**



**LBS(V)/290**



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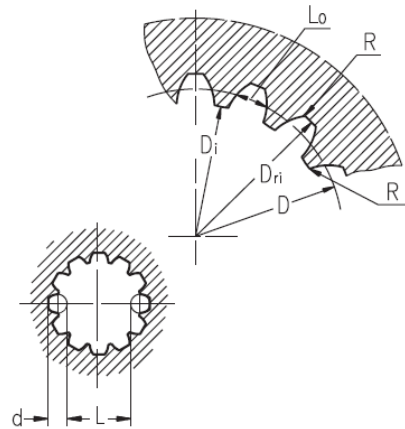
# HIDRÁULICA ROGIMAR

## INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

Standard ANS B92.1-1970, class 5

[m=2.1166]

Fillet Root Side Fit	LBS(V)/289 LBS(V)/290		LBS(V)/314 LBS(V)/315	
	mm	inch	mm	inch
Number of Teeth z	12	12	16	16
Diametral Pitch DP	12/24	12/24	12/24	12/24
Pressure Angle	30°	30°	30°	30°
Pitch Dia. D	25,4	1	33,8656	1.3333
Major Dia. D <sub>ri</sub>	28,0 <sup>-0,1</sup>	1.1 + 1.098	38,4 <sup>+0,4</sup>	1.5118+1.5275
Minor Dia. D <sub>i</sub>	23,0 <sup>+0,033</sup>	.907 + .905	32,15 <sup>+0,06</sup>	1.2657+1.2673
Space Width [Circular] L <sub>o</sub>	4,308±0,020	.1704 + .1688	4,516±0,037	.1763+.1791
Fillet Radius R	0,2	.008	0,5	.02
Max. Measurement between Pins L	17,62 <sup>+0,15</sup>	.699 + .694	26,9 <sup>+0,10</sup>	1.063+1.059
Pin Dia. d	4,835±0,001	.19039+.19031	4,835±0,001	.19026+.19034
Corrected x.m	+0,8	+.031	+1,0	+.039



### ORDER CODE - LB/288

	1	2	3	4	5
LB/288		-			

#### Pos.1 - Input Shaft Hole

C, CO, SH, CB, SB

#### Pos.2 - Static Torque code (See Specification data)

7, 14, 21, 32, 43, 63

#### Pos.3 - Output Shaft Extensions\*

- C** - ø25 straight, Parallel key A8x7x32 DIN 6885
- CO** - ø1" straight, Parallel key ¼"x¼"x1¼" 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.4 - Option (Paint)\*\*

omit - no Paint

**P** - Painted

**PC** - Corrosion Protected Paint

#### Pos.5 - Design Series

omit - Factory specified

### ORDER CODE - LBS, LBV

	1	2	3	4	5	6
LB		/	-			

#### Pos.1 - Type

- S** - Disc Brake for short motor S- MSS
- V** - Disc Brake for very short motor V- MSV

#### Pos.2 - Design code

- 289** - for MSS and MSV Motors
- 290** - for MSS and MSV Motors (Wheel Mount)

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

21, 32, 43, 63

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

- CB** - ø32 straight, Parallel key A10x8x45 DIN 6885
- KB** - ø35 tapered 1:10, Parallel key B6x6x20 DIN6885
- SH** - ø1¼" splined 14T ANS B92.1-1970

#### 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 not be exceeded! For Max. Torque values see data on page 5 and 8.
- \*\* The color is by customer's request.

The Disc Brakes are mangano-phosphatized as standard.

#### ATTENTION:

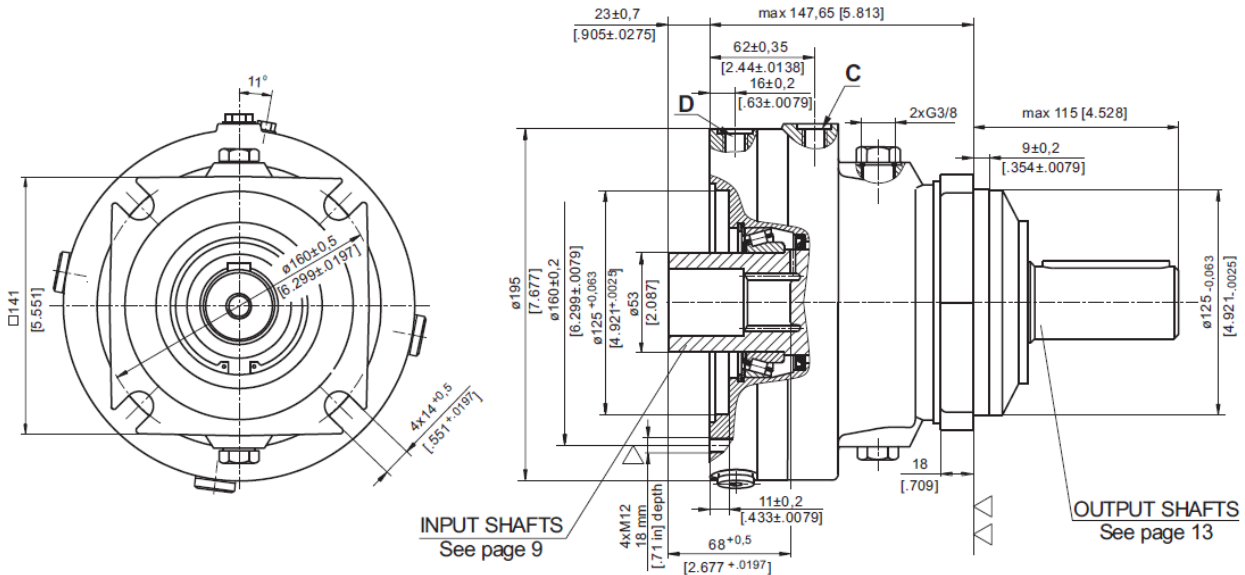
1. Hydraulic brake is delivered without oil (it is lubricated only).
2. In all brakes, friction discs and separators should be lubricated. Space is filled with 50 ÷ 120 cm<sup>3</sup> [3.05÷7.32 in<sup>3</sup>] mineral oil HLP (DIN 51524) or HM (ISO 6743/4). For LB/288 fill oil after hydraulic motor assembly.



# HIDRÁULICA ROGIMAR

## HYDRAULIC DISC BRAKES FOR FLANGE ATTACHMENT TO MTS AND MTV HYDRAULIC MOTORS

### TYPE LBS/314



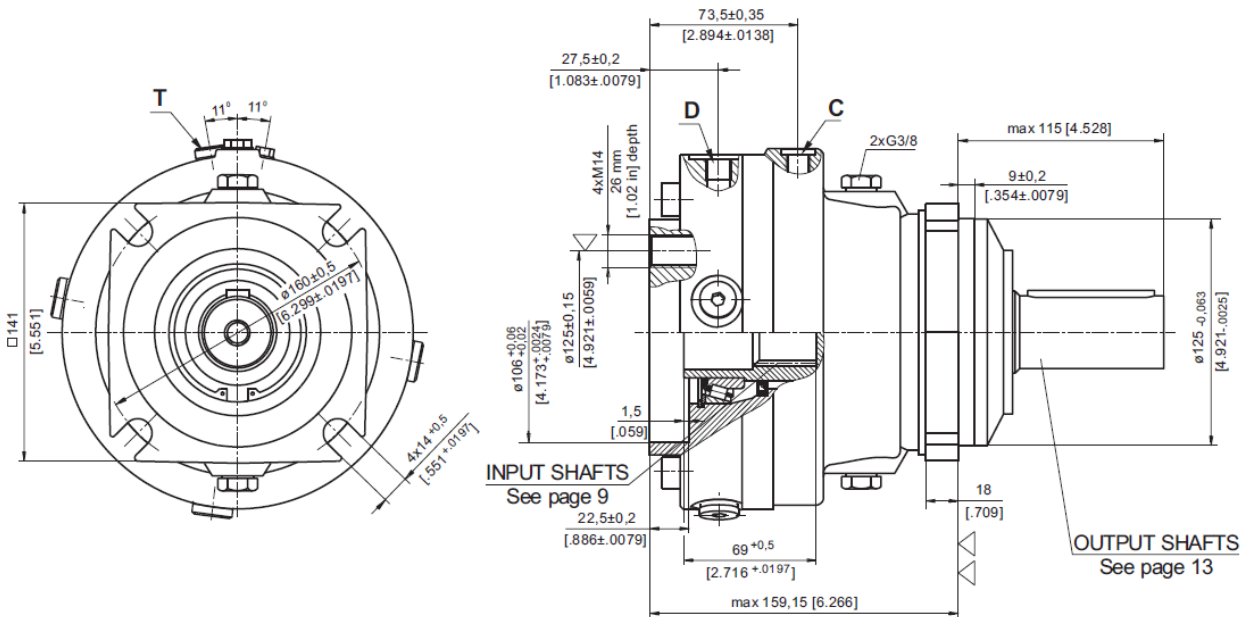
▽ - Place for attachment  
(tightening torque for screw M12x30- 8.8 DIN 912,  
7 daNm [620 lb-in])

▽▽ - Place for attachment

C : Brake release Port - G $\frac{1}{4}$ , 12 mm [.47 in] depth  
D : Drainage tap - G $\frac{1}{4}$ , 12 mm [.47 in] depth



### TYPE LBV/314



▽ - Place for attachment  
(tightening torque for screw M14 - 8.8 DIN 912,  
11,5 daNm [1020 lb-in])

▽▽ - Place for attachment

C : Brake release Port - G $\frac{1}{4}$ , 12 mm [.47 in] depth  
D, T : Drainage tap - G $\frac{1}{4}$ , 12 mm [.47 in] depth

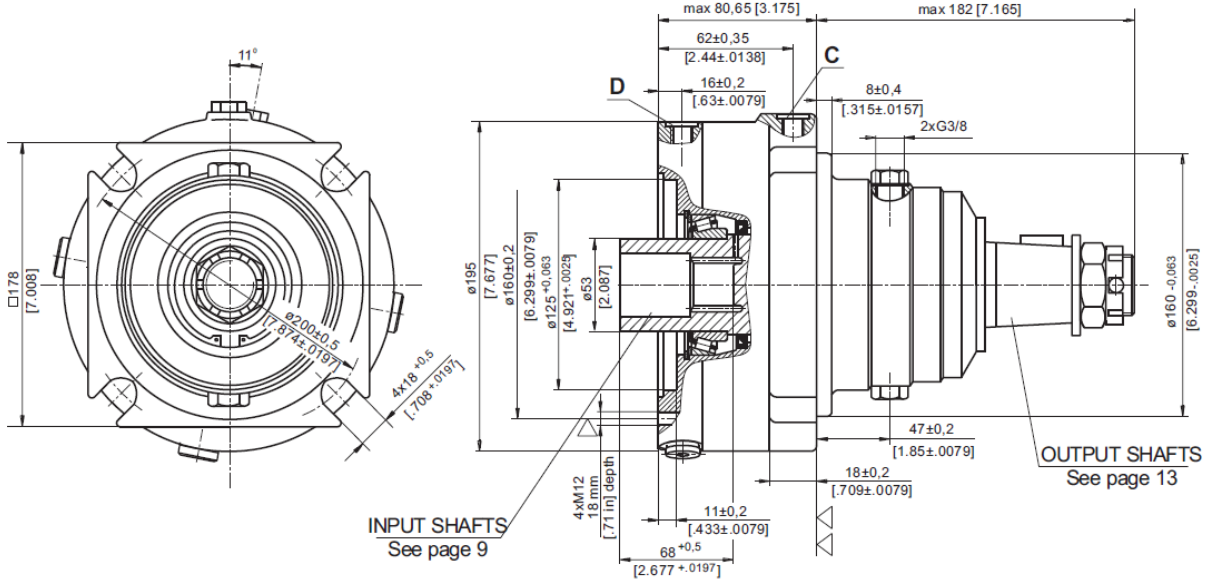
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# HIDRÁULICA ROGIMAR

## HYDRAULIC DISC BRAKES FOR FLANGE ATTACHMENT TO MTS AND MTV HYDRAULIC MOTORS

### TYPE LBS/315



▽ - Place for attachment  
(tightening torque for screw M12x30- 8.8 DIN 912,  
7 daNm [620 lb-in])

▽▽ - Place for attachment

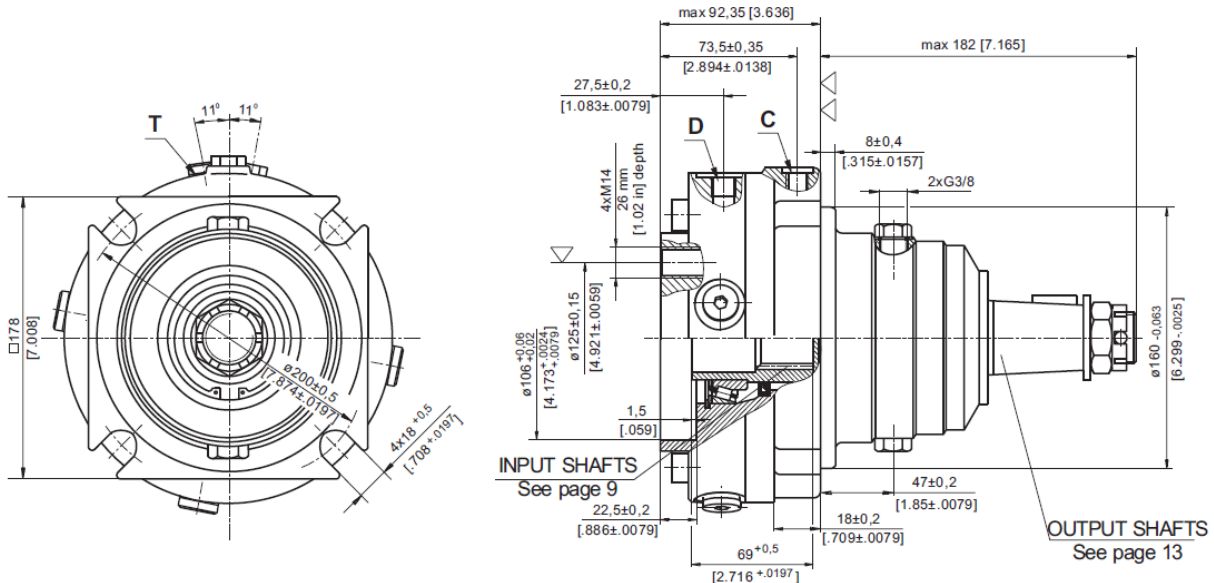
C : Brake release Port - G $\frac{1}{4}$ , 12 mm [.47 in] depth

D : Drainage tap - G $\frac{1}{4}$ , 12 mm [.47 in] depth



mm [in]

### TYPE LBV/315



▽ - Place for attachment  
(tightening torque for screw M14 - 8.8 DIN 912,  
11,5 daNm [1020 lb-in])

▽▽ - Place for attachment

C : Brake release Port - G $\frac{1}{4}$ , 12 mm [.47 in] depth

D,T : Drainage tap - G $\frac{1}{4}$ , 12 mm [.47 in] depth

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# HIDRÁULICA ROGIMAR

## SPECIFICATION DATA

Description LBS/314,315	21	29	43	65	85	110	130
*Min. Static Torque, daNm [[lb-in]	18-23 [1593-2036]	28-33 [2478-2921]	42-46 [3717-4071]	61-70 [5399-6196]	83-92 [7346-8143]	108-118 [9559-10444]	126-136 [11152-12037]
Opening Pressure min** bar [PSI]	4-5 [58-72]	6-7 [87-101]	9-10 [130-145]	13-15 [188-217]	18-20 [261-290]	23-25 [333-362]	27-29 [391-420]
	max 300 [4350]						
Min. oil quantity for brake releasing cm <sup>3</sup> [in <sup>3</sup> ]	8-9 [.488-.549]						
Oil volume cm <sup>3</sup> [in <sup>3</sup> ]	250						
Max. Pressure in drain space bar [PSI]	5 [72]						
Weight for .../314 kg [lb]	24 [52.9]						
	.../315 25 [55.1]						

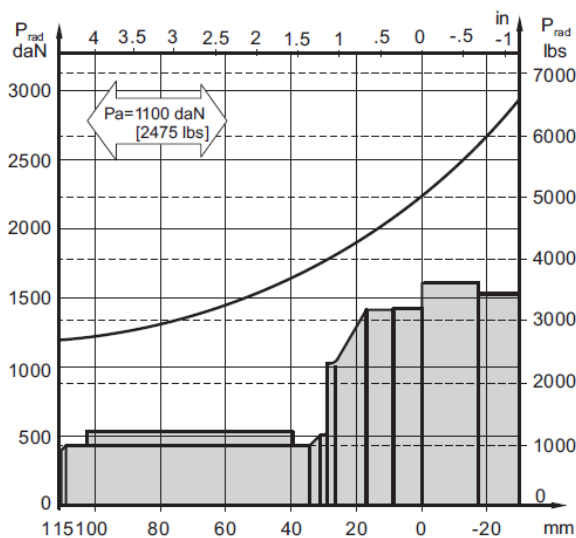
\*Static torque is obtained at working pressure - 0 bar.

\*\*The indicated value is a difference between the inlet pressure for driving of the brake and the drain pressure.

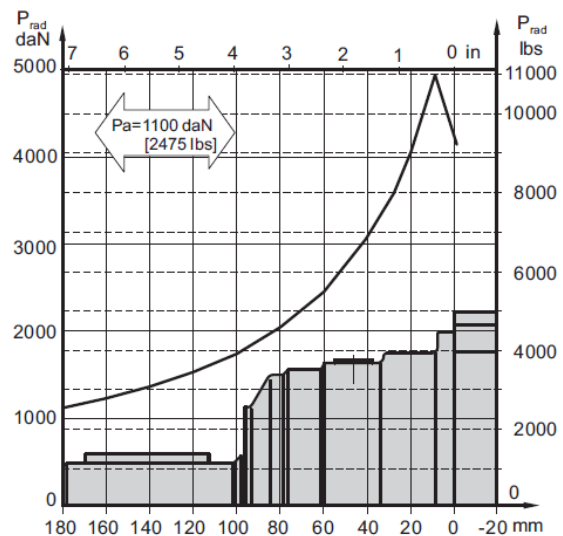
Brakes must always have a drain line

## LOAD CURVE

LBS(V) ... /314



LBS(V) ... /315



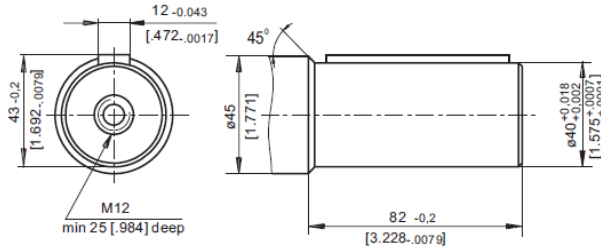
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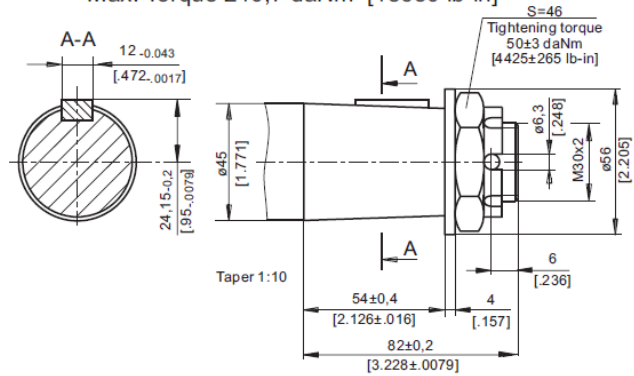
# HIDRÁULICA ROGIMAR

## OUTPUT SHAFT EXTENSIONS

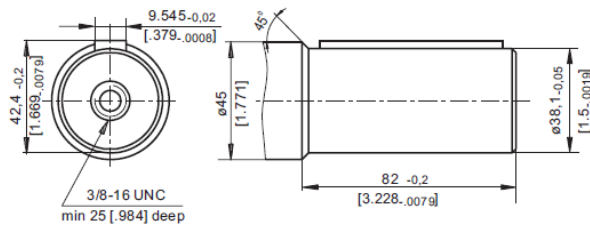
**C** - $\varnothing$ 40 straight, Parallel key A12x8x70 DIN 6885  
Max. Torque 132,8 daNm [11755 In-in]



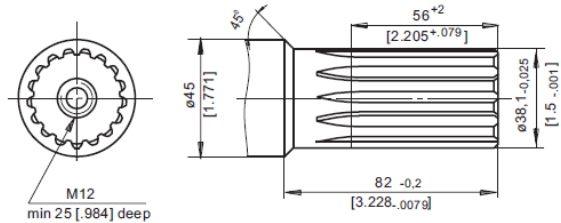
**K** -tapered 1:10, Parallel key B12x8x28 DIN 6885  
Max. Torque 210,7 daNm [18650 lb-in]



**CO** - $\varnothing$ 1½" straight, Parallel key 3/8"x 3/8"x 2¼" BS46  
Max. Torque 132,8 daNm [11755 In-in]



**SH** - $\varnothing$ 1½" splined 17T, DP 12/24 ANSI B92.1-1976  
Max. Torque 132,8 daNm [11755 In-in]



## ORDER CODE

1	2	3	4	5	6
LB	/	-			

### Pos. 1 - Type

- S** - Disc Brake for short motor **S** - MTS
- V** - Disc Brake for very short motor **V** - MTV

### Pos. 2 - Design code

- 314** - for MTS and MTV Motors
- 315** - for MTS and MTV Motors (Wheel Mount)

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

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

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

- C** -  $\varnothing$ 40 straight, Parallel key A12x8x70 DIN 6885
- CO** -  $\varnothing$ 1½" straight, Parallel key 3/8"x 3/8"x 2¼" BS46
- SH** -  $\varnothing$ 1½" 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 not be exceeded!
- \*\* The color is by customer's request.

The Disc Brakes are mangano-phosphatized as standard.

### ATTENTION:

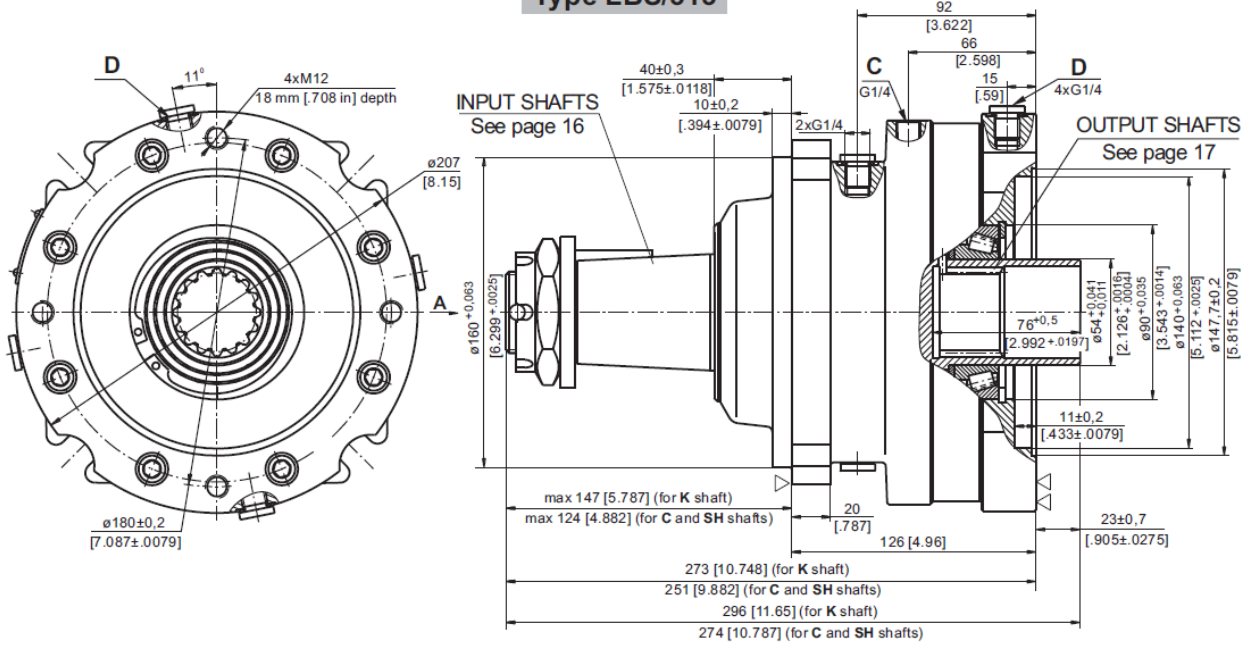
- Hydraulic brake is delivered without oil (it is lubricated only).
- In all brakes, friction discs and separators should be lubricated. Space is filled with 150÷300 cm<sup>3</sup> [9.15÷18.3 in<sup>3</sup>] mineral oil HLP (DIN 51524) or HM (ISO 6743/4).



# HIDRÁULICA ROGIMAR

## HYDRAULIC DISC BRAKES FOR FLANGE ATTACHMENT TO MVS HYDRAULIC MOTORS

### Type LBS/313

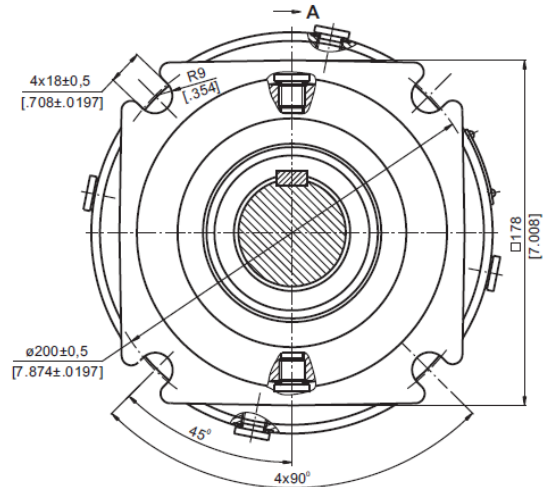


**C** : Brake release Port - G $\frac{1}{4}$ , 12 mm [0.47 in] depth

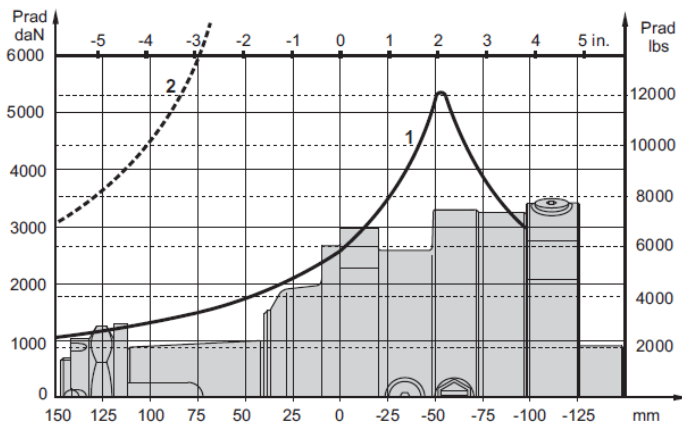
**D** : Drainage tap - G $\frac{1}{4}$ , 12 mm [0.47 in] depth

▽ - Place for attachment

▽▽ - Place for attachment  
(tightening torque for screw M12x35 - 8.8 DIN 912,  
7 daNm [620 lb-in])



### PERMISSIBLE SHAFT LOADS



1 - Bearing curve: The curve applies to a B10 bearing life of 3000 hours at 200 RPM.  
2 - Shaft curve: The curve represents Max. permissible radial shaft load with safety factor 3:1.

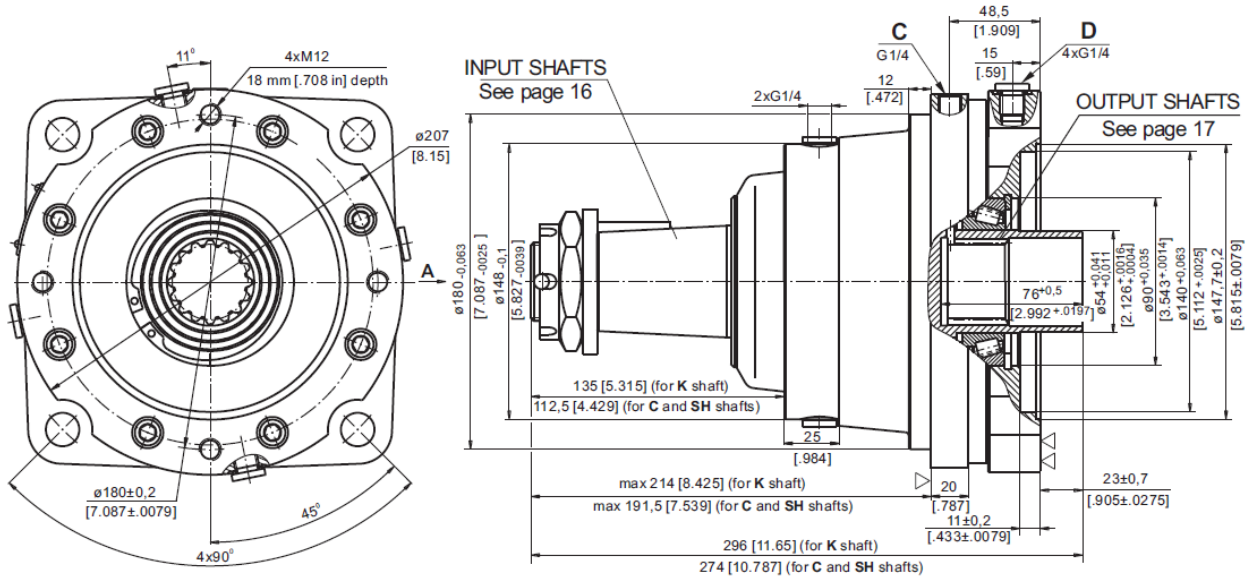
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HYDRAULIC DISC BRAKES  
FOR FLANGE ATTACHMENT TO MVS HYDRAULIC MOTORS

Type LBS/316

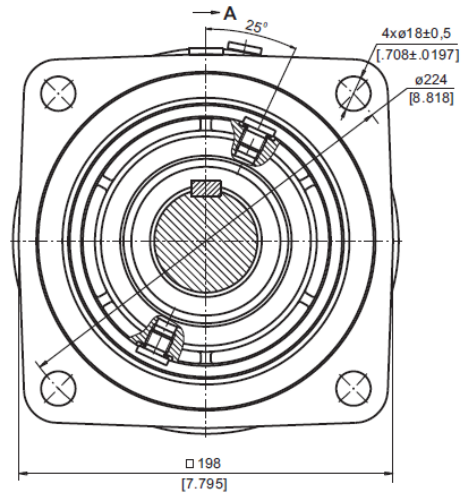


C : Brake release Port - G $\frac{1}{4}$ , 12 mm [.47 in] depth

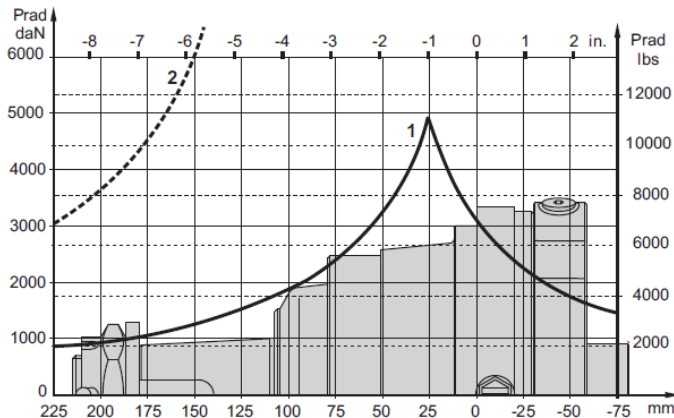
D : Drainage tap - G $\frac{1}{4}$ , 12 mm [.47 in] depth

▽ - Place for attachment

▽▽ - Place for attachment  
(tightening torque for screw M12x35 - 8.8 DIN 912,  
7 daNm [620 lb-in])



PERMISSIBLE SHAFT LOADS



1 - Bearing curve: The curve applies to a B10 bearing life of 3000 hours at 200 RPM.

2 - Shaft curve: The curve represents Max. permissible radial shaft load with safety factor 3:1.

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**SPECIFICATION DATA**

Description LBS/313,316	21	29	43	65	85	110	130
*Min. Static Torque, daNm [lb-in]	18-23 [1593-2036]	28-33 [2478-2921]	42-47 [3717-4160]	61-71 [5399-6285]	83-94 [7346-8320]	108-118 [9559-10444]	127-137 [11240-12125]
Opening Pressure min** bar [PSI]	4-5 [58-72]	6-7 [87-101]	9-10 [130-145]	13-15 [188-217]	18-20 [261-290]	23-25 [333-362]	27-29 [391-420]
	max 300 [4350]						
Min. oil quantity for brake releasing cm <sup>3</sup> [in <sup>3</sup> ]	8 ÷ 9 [.488 ÷ .549]						
Oil volume cm <sup>3</sup> [in <sup>3</sup> ]	250 [15.25]						
Max. Pressure in drain space bar [PSI]	5 [72]						

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

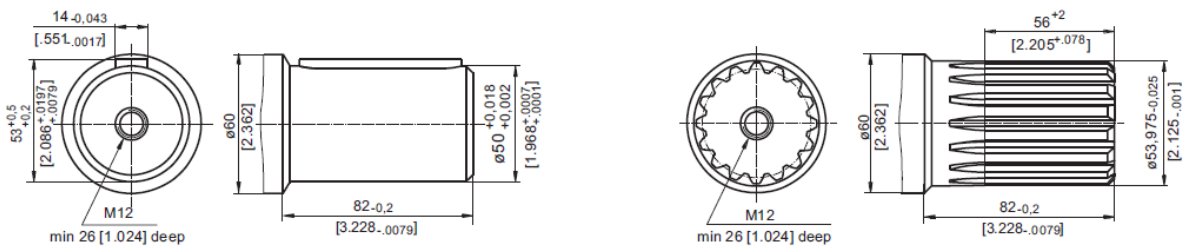
\*\*The indicated value is a difference between the inlet pressure for driving of the brake and the drain pressure.

Brakes must always have a drain line

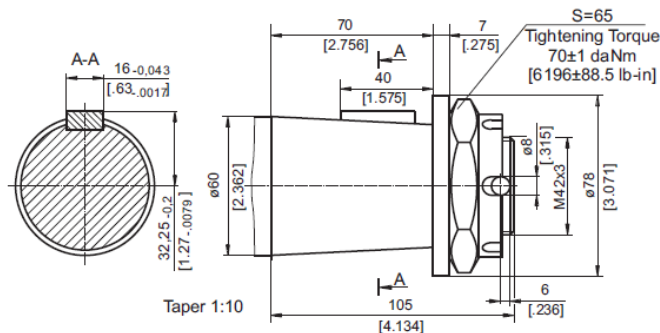
**SHAFT EXTENSIONS**

**C** - ø50 straight, Parallel key A14x9x70 DIN 6885

**SH** -ø21/8"splined, 16 DP 8/16 ANS B92.1-1976



**K** -tapered 1:10, Parallel key B16x10x32 DIN 6885



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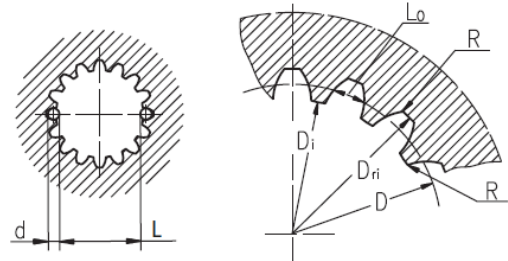


# HIDRÁULICA ROGIMAR

## INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

Standard ANS B92.1-1970, class 5  
[m=2.54; corrected x.m=+1,0]

Fillet Root Side Fit		mm	inch
Number of Teeth	z	16	16
Diametral Pitch	DP	10/20	10/20
Pressure Angle		30°	30°
Pitch Dia.	D	40,640	1.6
Major Dia.	D <sub>ri</sub>	45,2 <sup>+0,4</sup>	1.796±1.780
Minor Dia.	D <sub>i</sub>	38,5 <sup>+0,039</sup>	1.5175±1.516
Space Width [Circular]	Lo	5,18±0,037	.2055±.2025
Fillet Radius	R	0,4	.015
Max. Measurement between Pins	L	32,47 <sup>+0,15</sup>	1.284±1.278
Pin Dia.	d	5,6±0,001	.22051±.22043



**Hardening Specification:**  
 HV=750±50 on the surface.  
 HV=560 at 0,7±0,2 mm [.035±.019in] case depth  
 Material: 20 MoCr4 EN 10084 or better.

### ORDER CODE

	1	2	3	4	5
LBS/		-			

- Pos.1 - Designe code**
- 313** - for MVS Motors
  - 316** - for MVS Motors (Wheel mount)
- Pos.2 - Static Torque code** (See Specification data)
- 21, 29, 43, 65, 85, 110, 130
- Pos.3 - Output Shaft Extensions\***
- C** - ø50 straight, Parallel key A14x9x70 DIN6885
  - SH** - ø2 1/8" splined, ANSI B92.1-1976
  - K** - ø60 tapered 1:10, Parallel key B16x10x32 DIN6885
- Pos.4 - Option (Paint)\*\***
- omit - no Paint
  - P** - Painted
  - PC** - Corrosion Protected Paint
- Pos.5 - 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.

### ATTENTION:

1. Hydraulic brake is delivered without oil (it is lubricated only).
2. In all brakes, friction discs and separators should be lubricated. Space is filled with 150 ÷ 300 cm<sup>3</sup> [9.15 ÷ 18.3 in<sup>3</sup>] mineral oil HLP (DIN 51524) or HM (ISO 6743/4).

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