TÜV CERT
EN ISO 9001:2000
Zertifikat: 75.100.40141
TÜV Rheinland InterCert

M+S HYDRAULIC

HYDRAULIC BRAKES

TYPE LB/288
LBS/...
LBV/...

& VALVE BLOCKS FOR MOTORS

TYPE KP...

ACCESSORIES

CONTENTS

HYDRAULIC DISC BRAKES LB, LBS, LBV- Wet

APPLICATION

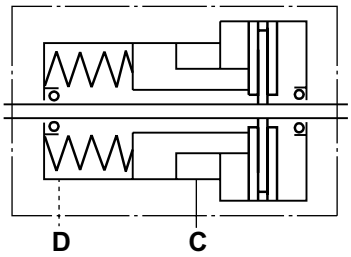
» Heavy Duty machinery
» Wheel drives
» Material handling
» Mining
» Agriculture
» Conveyors
» Door openers and swing drives etc.

GENERAL

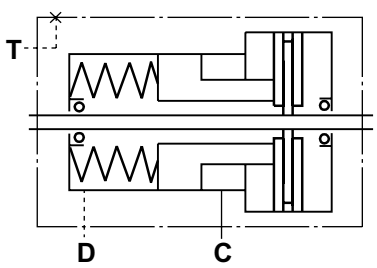
Fluid type	Mineral based- HLP(DIN 51524) or HM(ISO 6743/4)
Temperature range, °C	-30÷90
Viscosity range, mm^2/s	20÷75
Filtration	ISO code 20/16 (nominal filtration of 25 micron)
Maintenance	Changed after the first 50-100 h, then after every 500-1500 h.

CONTENTS

LB, LBS

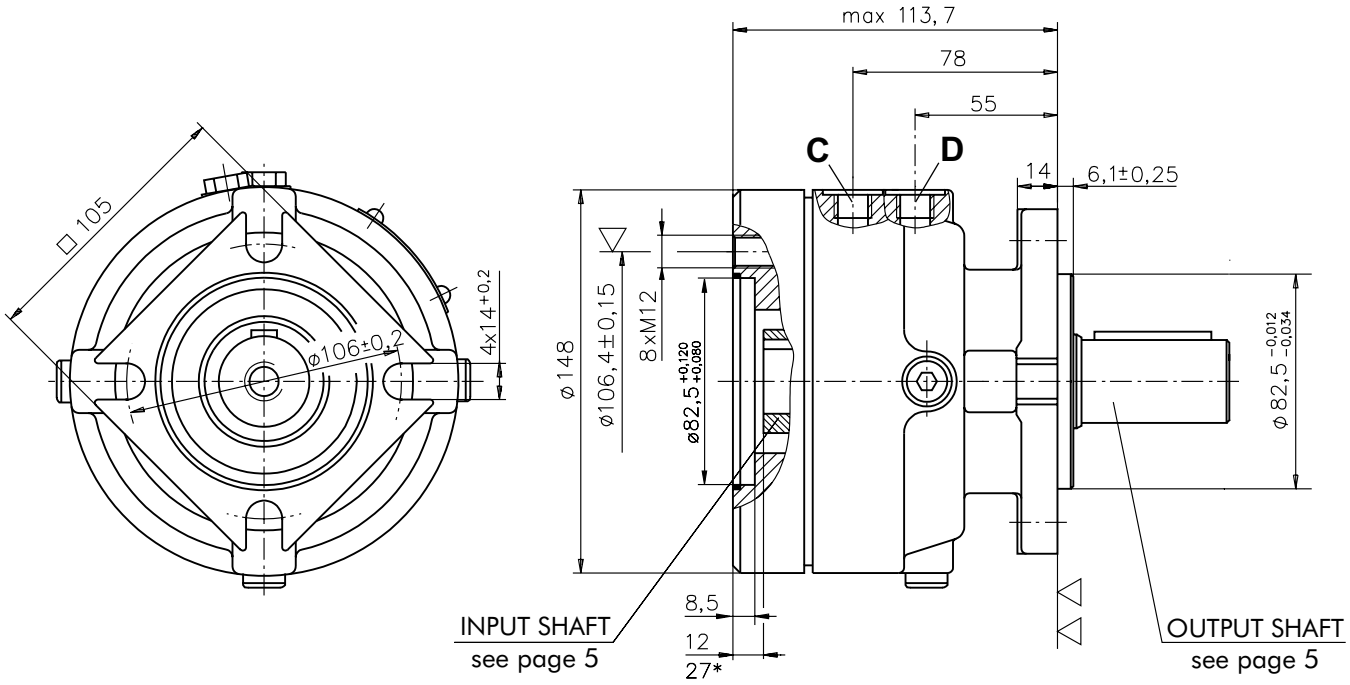


LBV



HYDRAULIC DISC BRAKE FOR FLANGE ATTACHMENT TO MP, MR AND MS HYDRAULIC MOTORS

TYPE LB/288



C : Brake release Port - G¼, 9 mm depth

D : Drainage tap - G¼, 9 mm depth

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

▽▽- Place for attachment

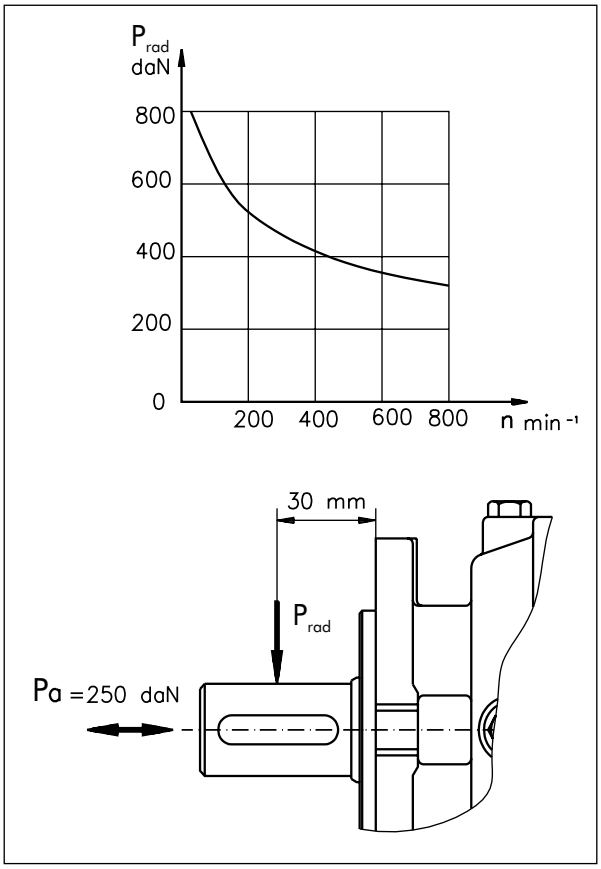
* - For Input Shaft Hole Versions **SH** and **SB**.

SPECIFICATION DATA

Description **LB/288...**		7	14	21	32	43	63
*Min. Static Torque [daNm]		6-8	13-15	20-22	31-34	41-45	61-64
Opening Pressure [bar]	min	4-8	9-16	17-23			
	max	300					
Min. oil quantity for brake releasing [cm³]		7- 8					
Oil volume [cm³]		50 - 120					
Max. Pressure in drain space [bar]		0,5					
Weight [kg]		9					

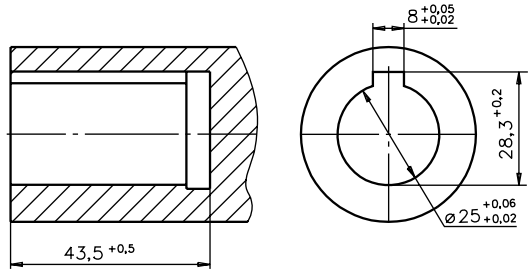
*Static torque is obtained at working pressure - 0 bar.

LOAD CURVE

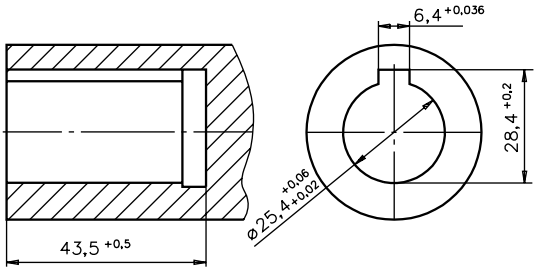


INPUT SHAFT HOLES

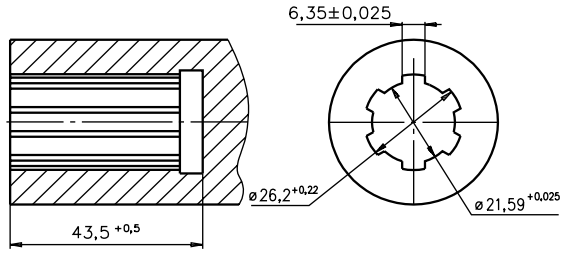
C



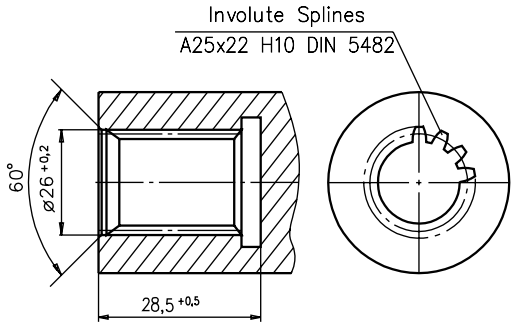
CO



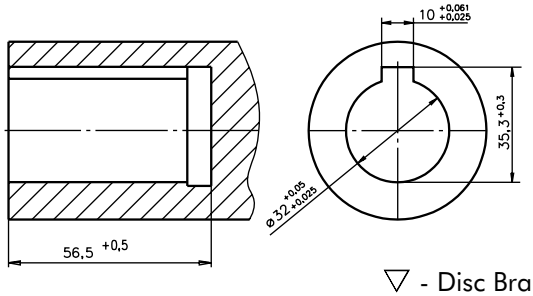
SH



SB



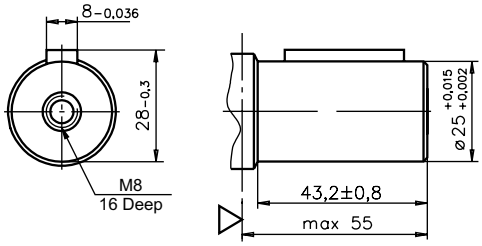
CB



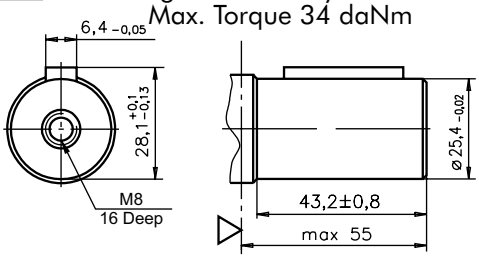
▽ - Disc Brake Mounting Surface

OUTPUT SHAFT EXTENSIONS

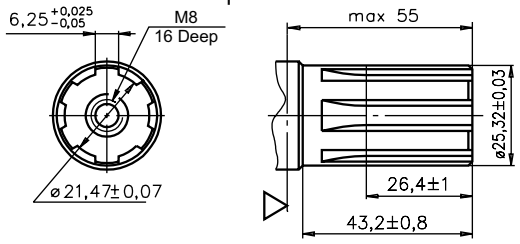
C - ø25 straight, Parallel key A8x7x32 DIN 6885
Max. Torque 34 daNm



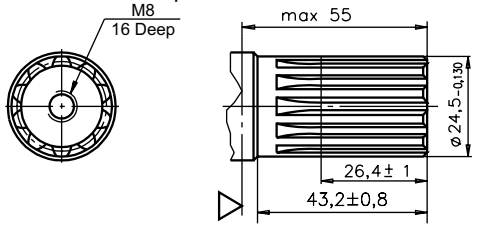
CO - ø1" straight Parallel key ¼"x¼"x1¼" BS46
Max. Torque 34 daNm



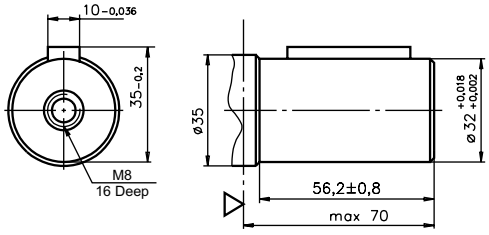
SH - splined BS 2059 (SAE 6B)
Max. Torque 40 daNm



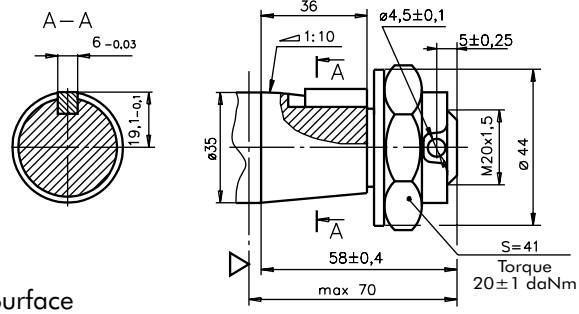
SA - splined B25x22 h9 DIN 5482
Max. Torque 40 daNm



CB - ø32 straight, Parallel key A10x8x45 DIN6885
Max. Torque 77 daNm

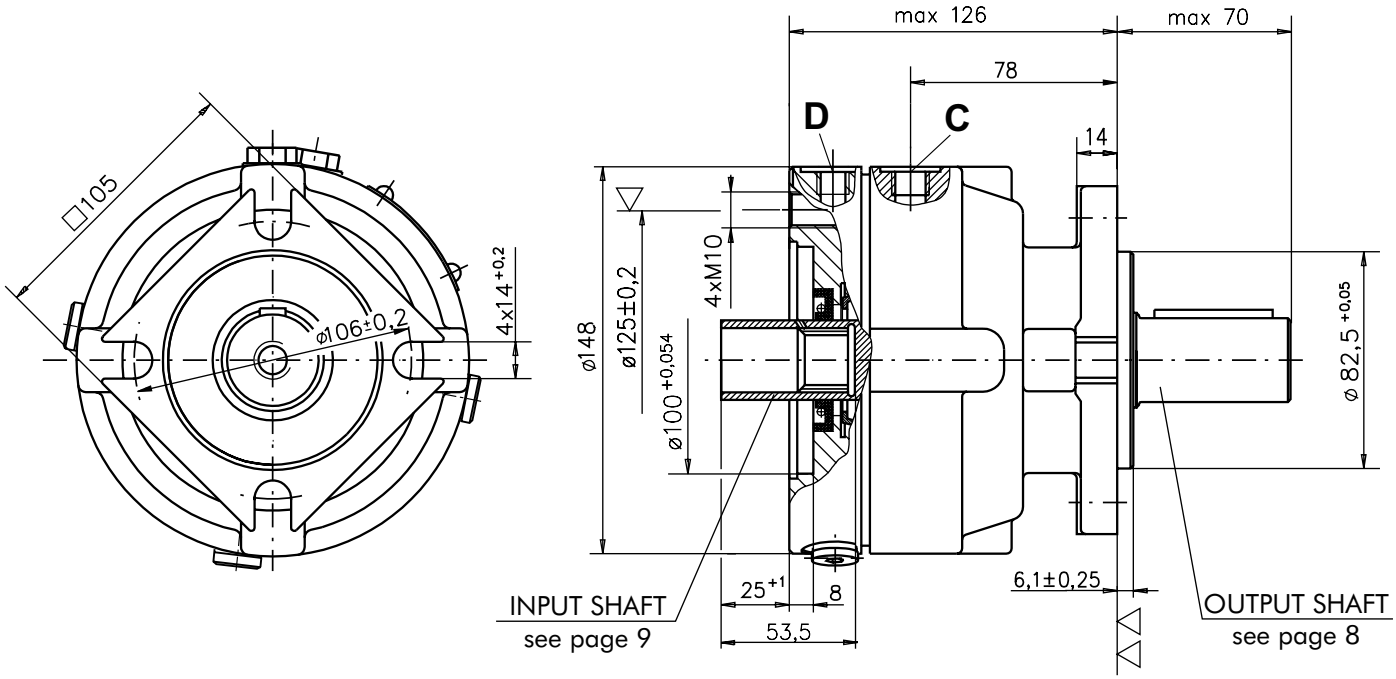


KB - tapered 1:10, Parallel key B6x6x20 DIN6885
Max. Torque 95 daNm

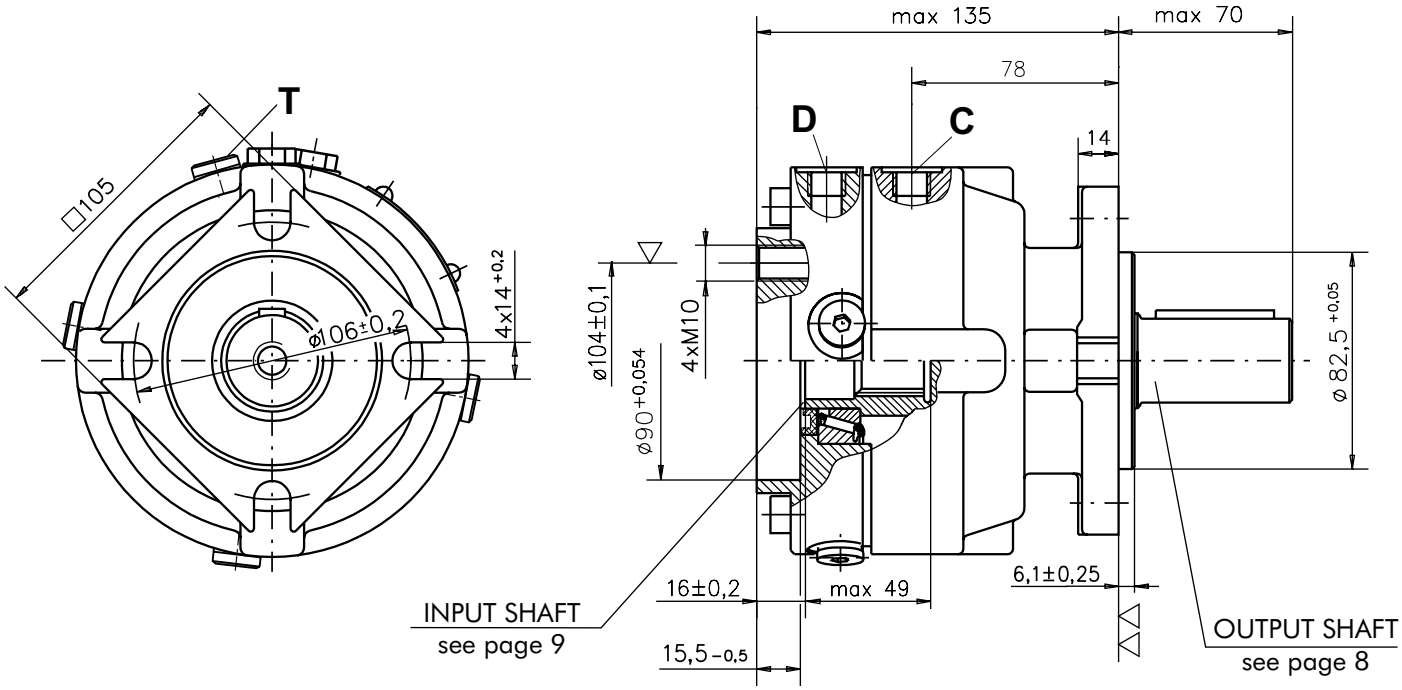


HYDRAULIC DISC BRAKE FOR FLANGE ATTACHMENT TO MSS AND MSV HYDRAULIC MOTORS

TYPE LBS/289



TYPE LBV/289



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

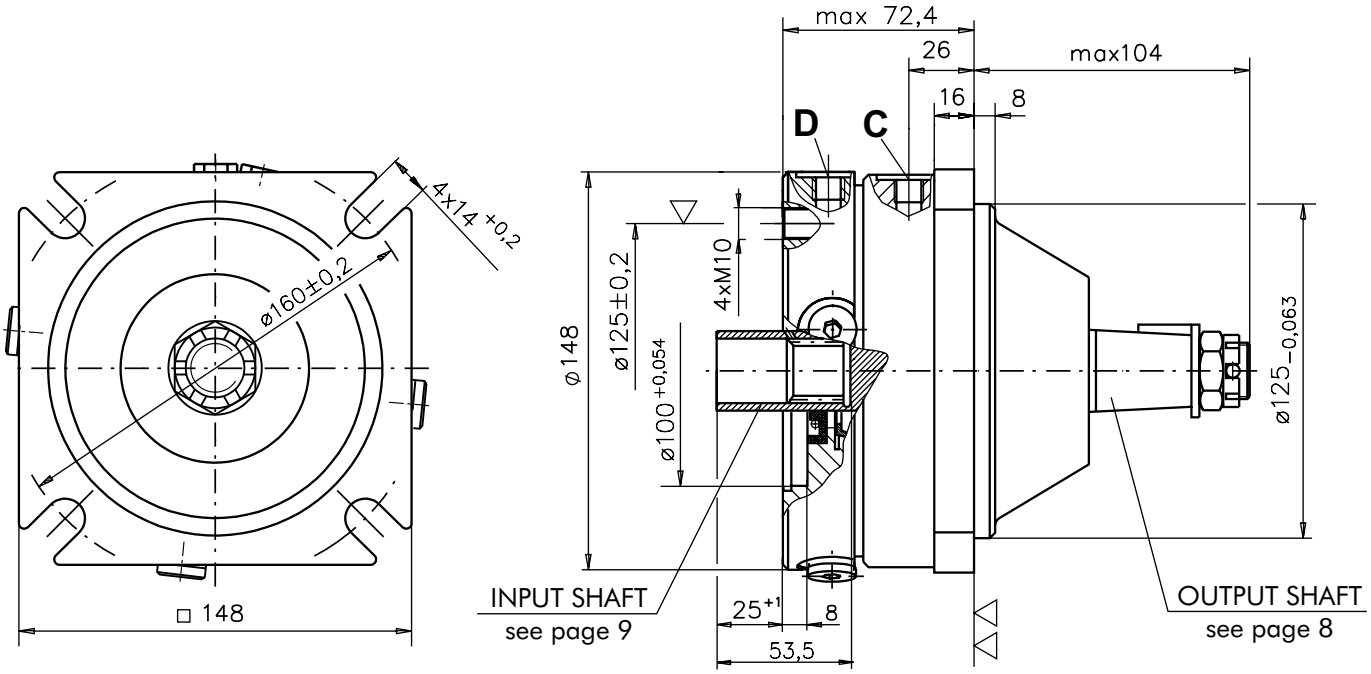
▽▽ - Place for attachment

C : Brake release Port - G¼, 9 mm depth

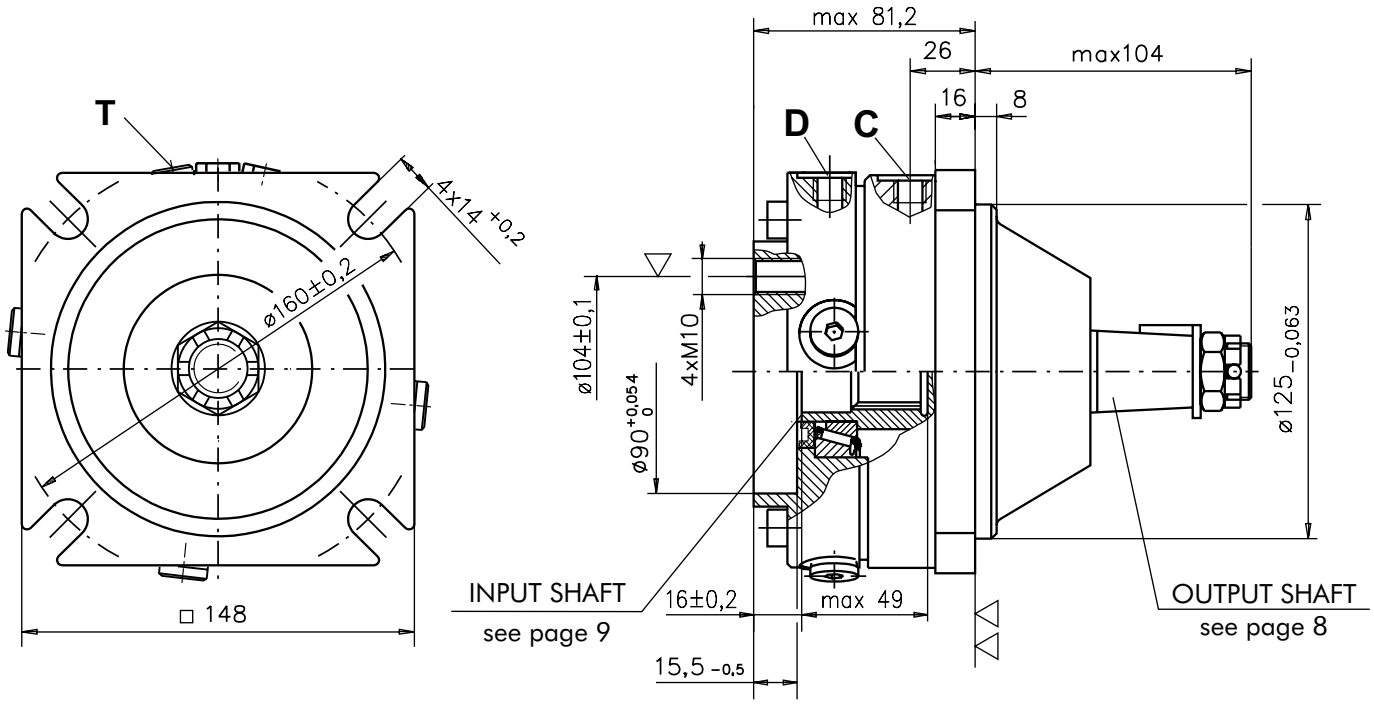
D, T : Drainage tap - G¼, 9 mm depth

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

TYPE LBS/290



TYPE LBV/290



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

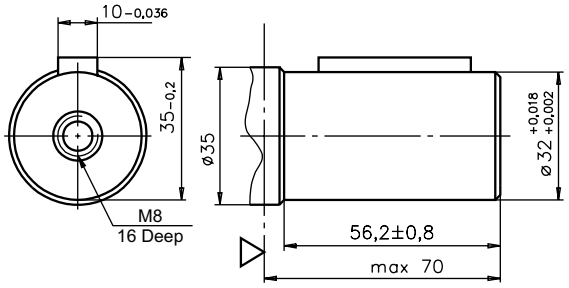
▽▽ - Place for attachment

C : Brake release Port - G¼, 9 mm depth

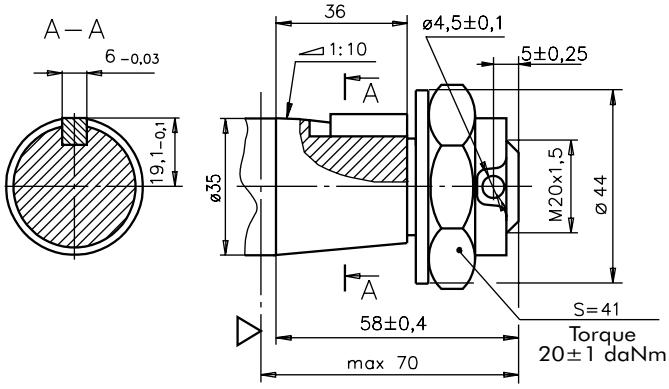
D, T : Drainage tap - G¼, 9 mm depth

OUTPUT SHAFT EXTENSIONS

CB - ø32 straight, Parallel key A10x8x45 DIN6885
Max. Torque 77 daNm



KB - tapered 1:10, Parallel key B6x6x20 DIN6885
Max. Torque 95 daNm



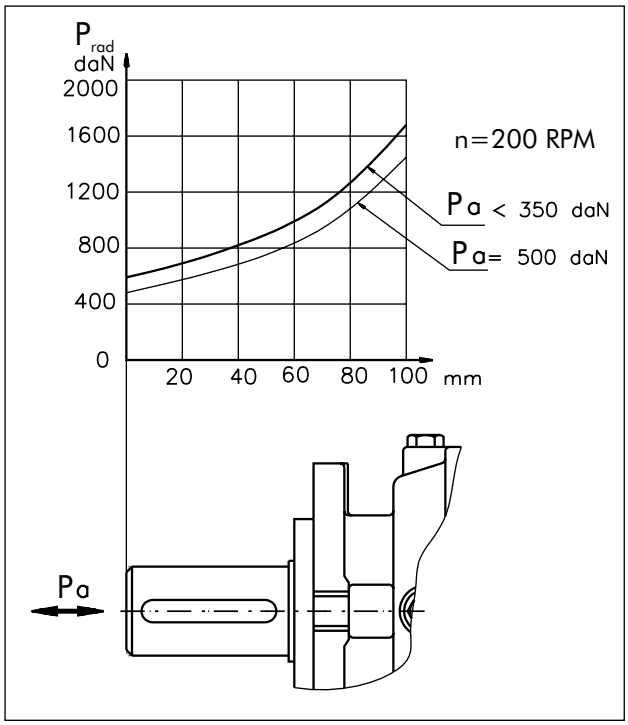
SPECIFICATION DATA

Description **LBS/289(290) LBV/289(290)**		21	32	43	63
*Min. Static Torque [daNm]		20-22	31-34	41-45	61-64
Opening Pressure [bar]	min	17-23			
	max	300			
Min. oil quantity for brake releasing [cm³]		7- 8			
Oil volume [cm³]		50 - 120			
Max. Pressure in drain space [bar]		5			
Weight .../289(290) [kg]		10(11)			

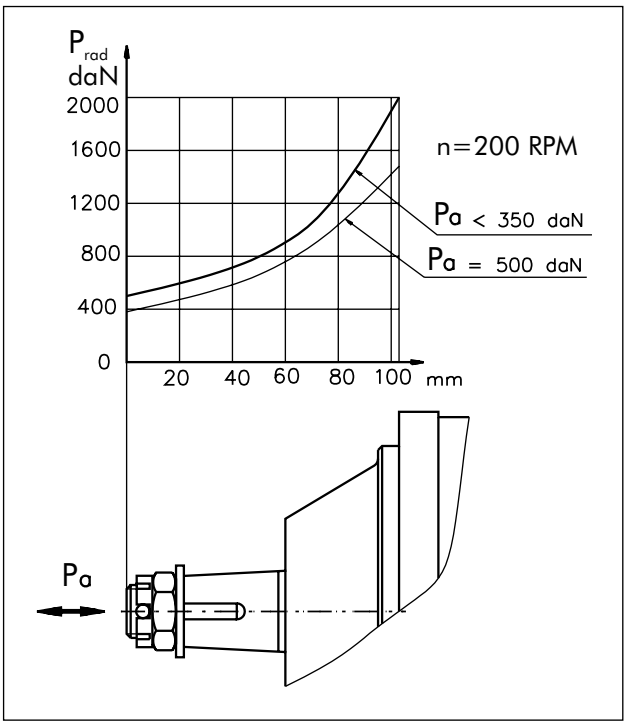
*Static torque is obtained at working pressure - 0 bar.

LOAD CURVE

LBS(V)/289



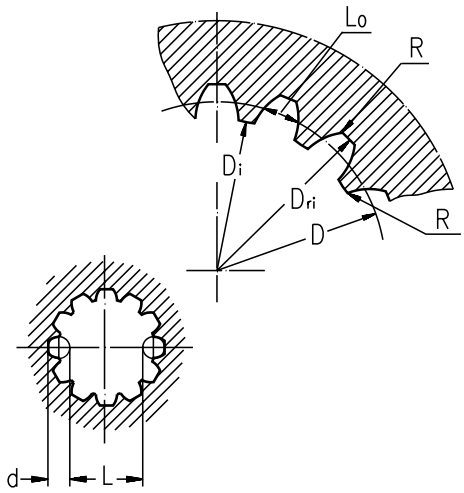
LBS(V)/290



INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

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

Fillet Root Side Fit			LBS(V)/289 LBS(V)/290	LBS(V)/314 LBS(V)/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.	Dri	[mm]	$28,0_{-0,1}$	$38,4^{+0,4}$
Minor Dia.	Di	[mm]	$23,0^{+0,033}$	$32,15^{+0,06}$
Space Width [Circular]	Lo	[mm]	4,308±0,020	4,516±0,037
Fillet Radius	R	[mm]	0,2	0,5
Max. Measurement between Pin	L	[mm]	$17,62^{+0,15}$	$26,9^{+0,10}$
Pin Dia.	d	[mm]	4,835±0,001	4,835±0,001
Corrected	x.m	[mm]	+0,8	+1,0



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 $^1/_4$"x$^1/_4$"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.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 - **Designe 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

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

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

Pos.6 - **Design Series**

omit - Factory specified

NOTES:

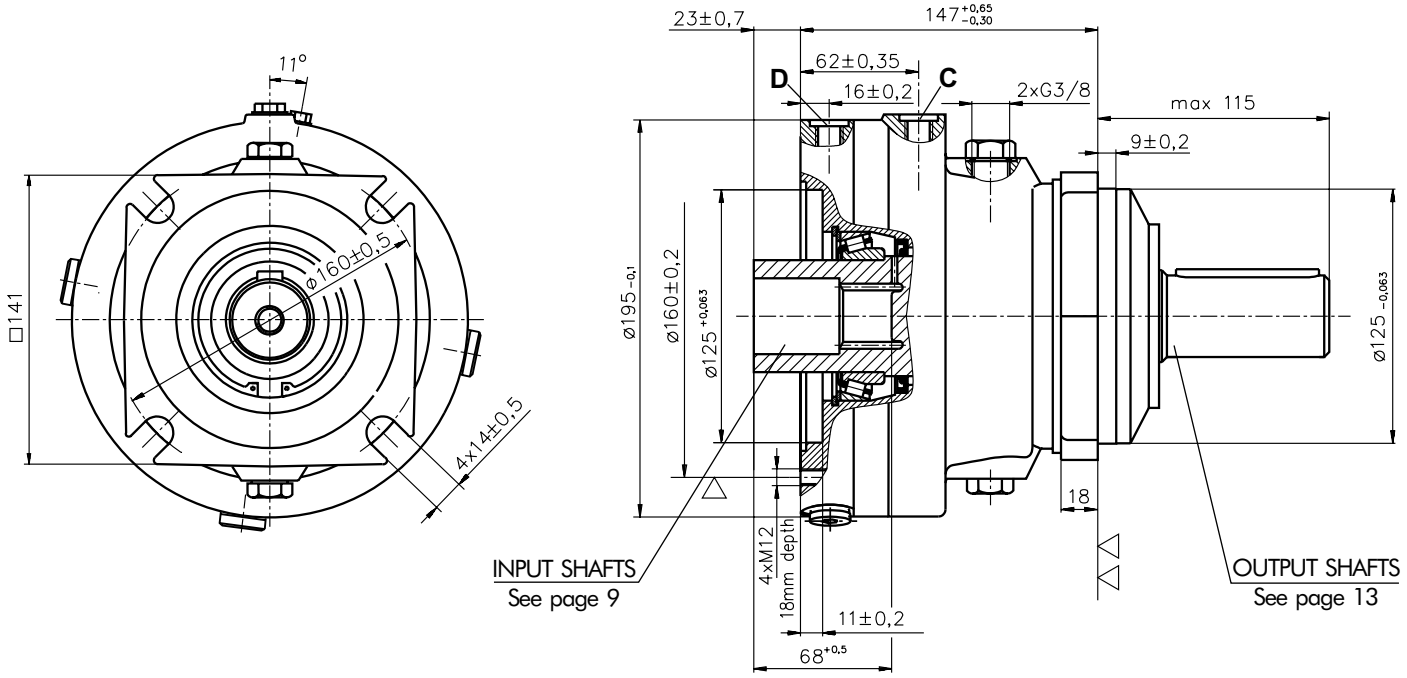
* The permissible output torque for shafts must be not exceeded! For Max. Torque values see data on page 5 and 8.
** The color is by customer's request.

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^3 mineral oil HLP (DIN 51524) or HM (ISO 6743/4). For LB/288 fill oil after hydraulic motor assembly.

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

TYPE LBS/314



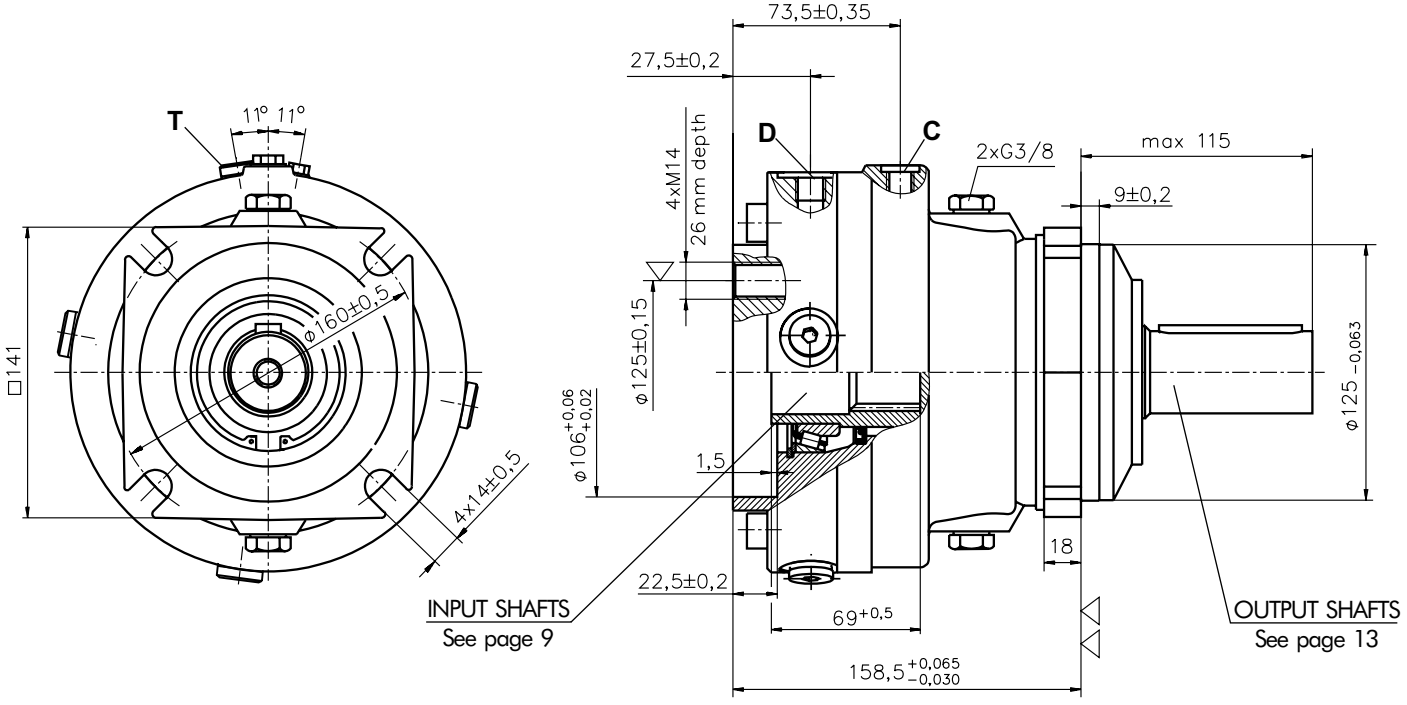
▽- Place for attachment
(tightening torque for bolt M12 - 8.8 - 8,5 da Nm)

▽▽- Place for attachment

C : Brake release Port - G¼, 9 mm depth

D : Drainage tap - G¼, 9 mm depth

TYPE LBV/314



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

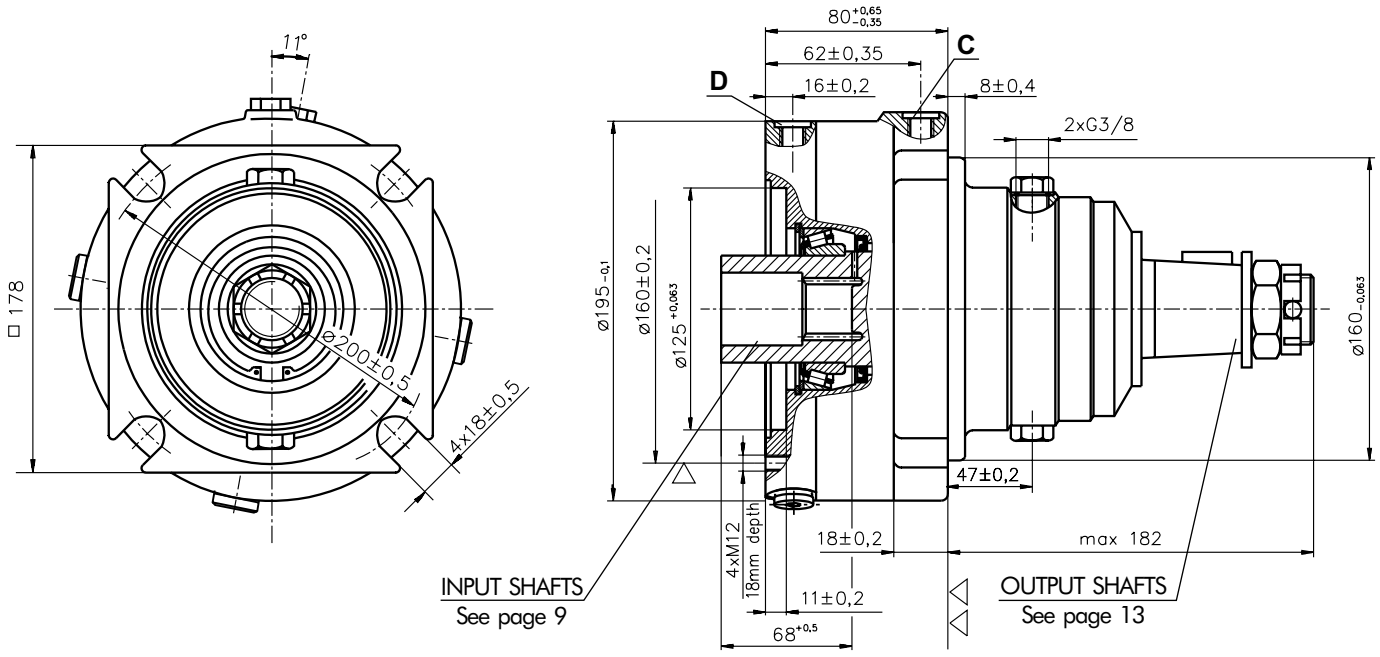
▽▽- Place for attachment

C : Brake release Port - G¼, 9 mm depth

D,T : Drainage tap - G¼, 9 mm depth

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

TYPE LBS/315



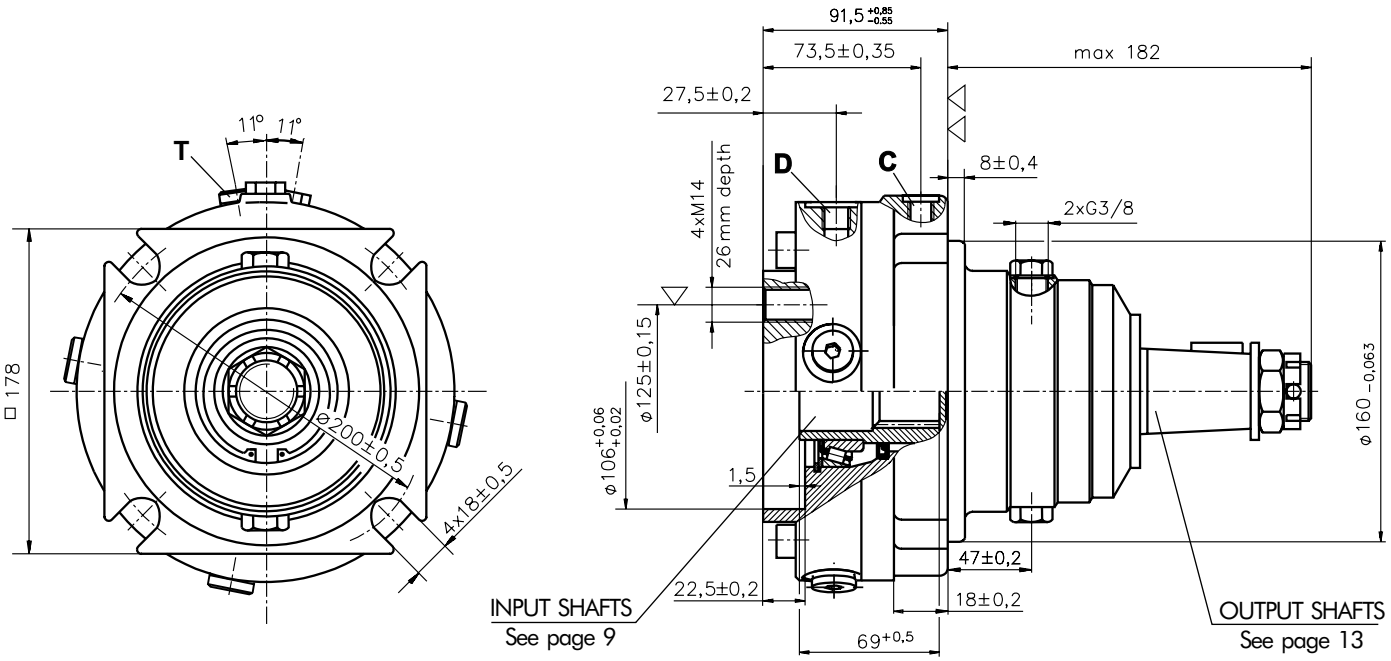
▽- Place for attachment
(tightening torque for bolt M12 - 8.8 - 8,5 da Nm)

▽▽- Place for attachment

C : Brake release Port - G¼, 9 mm depth

D : Drainage tap - G¼, 9 mm depth

TYPE LBV/315



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

▽▽- Place for attachment

C : Brake release Port - G¼, 9 mm depth

D,T : Drainage tap - G¼, 9 mm depth

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

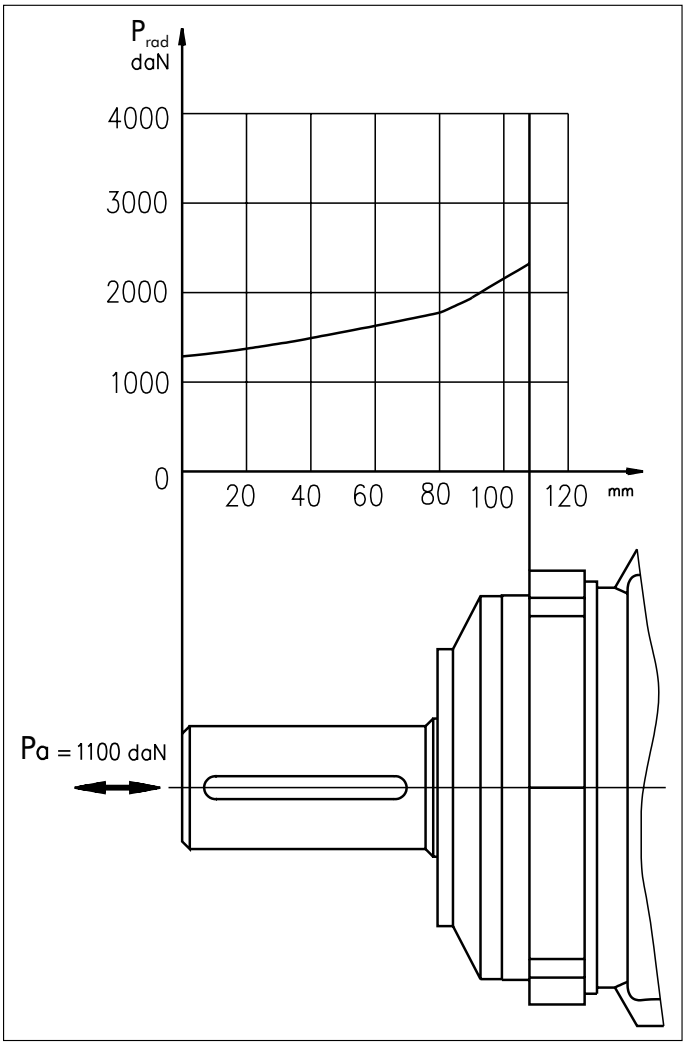
SPECIFICATION DATA

Description **LBS/314(315) LBV/314(315)**	21	29	43	65	85	110	130
*Min. Static Torque [daNm]	18-23	28-33	42-46	61-70	83-92	108-118	126-136
Opening Pressure min [bar]	4-5	6-7	9-10	13-15	18-20	23-25	27-29
max	300						
Min. oil quantity for brake releasing [cm³]	8- 9						
Oil volume [cm³]	150 - 300						
Max. Pressure in drain space [bar]	5						
Weight .../314(315) [kg]	24(25)						

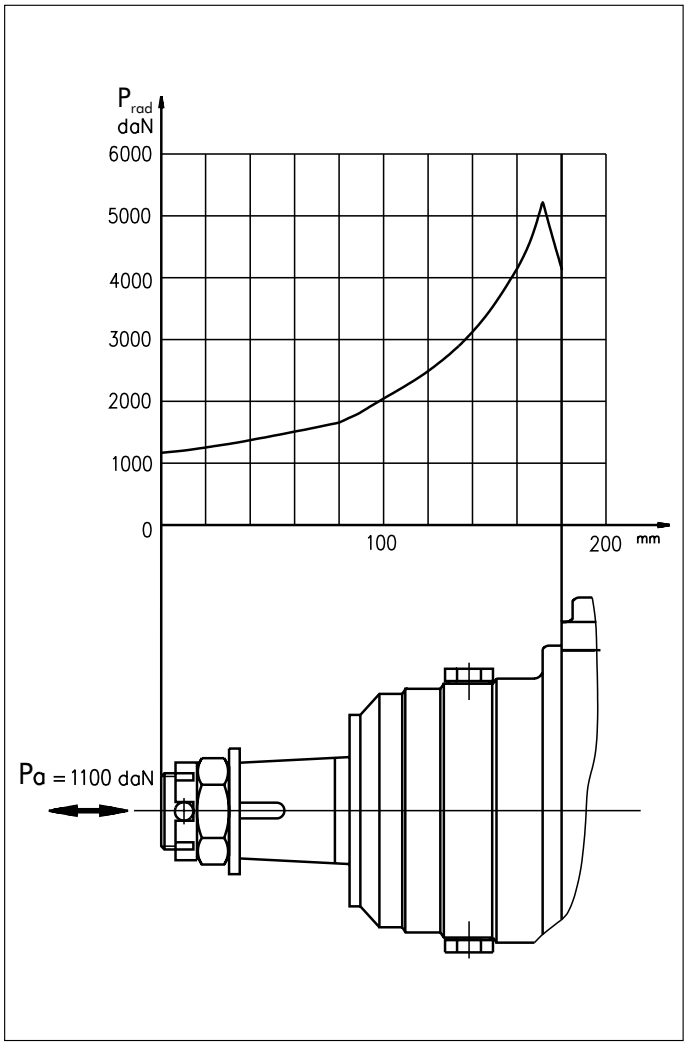
*Static torque is obtained at working pressure - 0 bar.

LOAD CURVE

LBS(V) ... /314

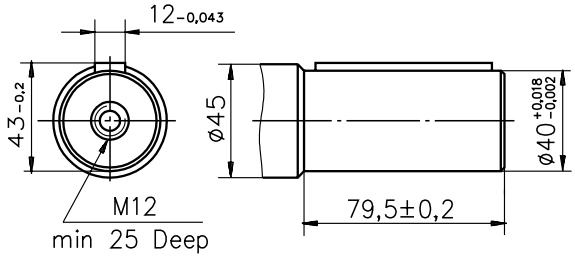


LBS(V) ... /315

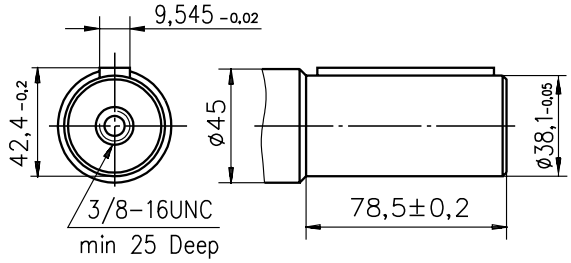


OUTPUT SHAFT EXTENSIONS

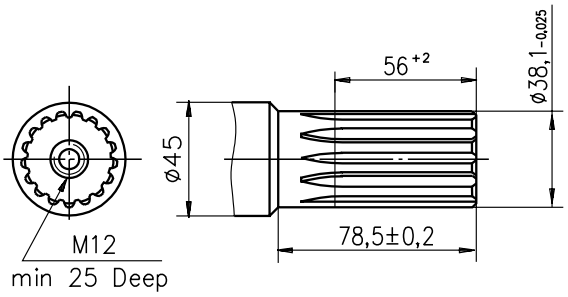
C - ø40 straight, Parallel key A12x8x70 DIN 6885
Max. Torque 132,8 daNm



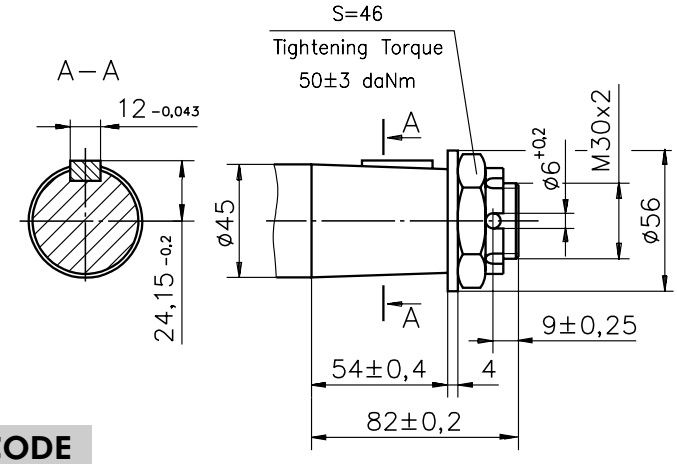
CO - ø1½" straight,Parallel key ⅜"x ⅜"x 2¼" BS46
Max. Torque 132,8 daNm



SH - ø1½" 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
LB		**/**		**-**			

Pos.1 - Type

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

Pos.2 - Designe 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	- ø40 straight, Parallel key A12x8x70 DIN 6885
CO	- ø1½" straight, Parallel key $^3/_8$"x$^3/_8$"x2$^1/_4$" BS46
SH	- ø1½" splined 17T, ANSI B92.1-1976
K	- ø45 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 toruqe for shafts must be not exceeded!

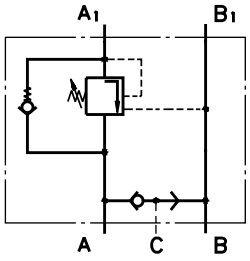
** The color is by customer's request.

The Disc Brakes are mangano-phosphatized as standard.

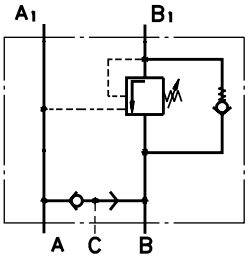
ATTENTION:

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^3 mineral oil HLP (DIN 51524) or HM (ISO 6743/4).

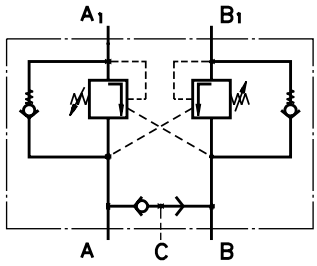
OVERCENTER VALVES WITH BRAKE CONTROL



Single Overcenter Valves with Brake Control type KPB ... EA



Single Overcenter Valves with Brake Control type KPB ... EB



Dual Overcenter Valves with Brake Control type KPB ... D

CONTENTS

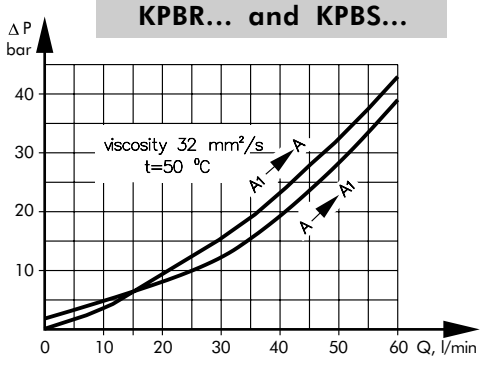
SPECIFICATION DATA

Parameters	Type							
	KPBR...E	KPBS...E	KPBR...D	KPBS...D	KPBT...E	KPBT...D	KPBV...E	KPBV...D
Flow Rate , l/min	60				100		200	
Rated Pressure* , bar	70÷250				70÷250		70÷250	
Pilot Ratio	4,25:1				4,25:1		4,25:1	
Weight , kg	3,300	3,340	3,350	3,390	5,400	5,800	9,200	9,750

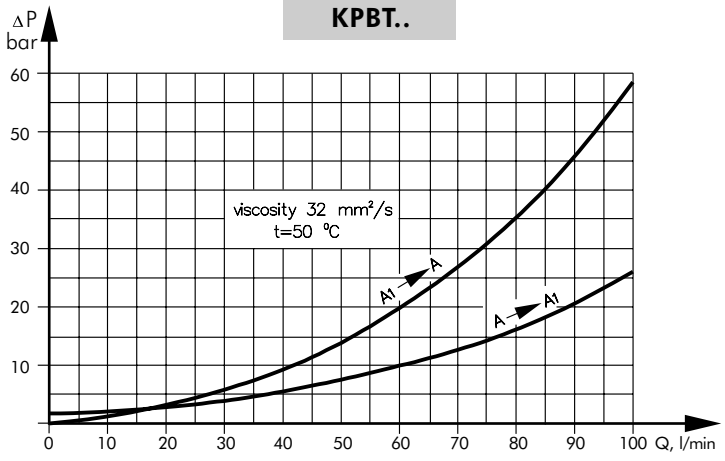
*Pressure Settings are at flow rate of 5 lpm and viscosity 32 mm^2/s (50 ^0C).

PRESSURE LOSSES

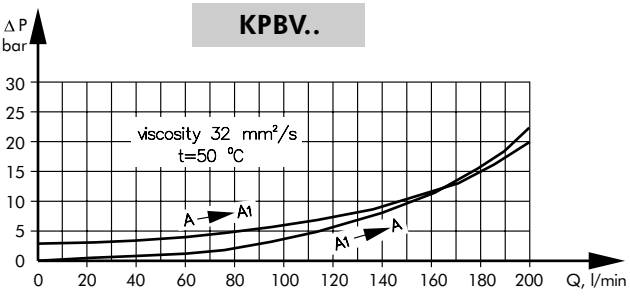
KPBR... and KPBS...



KPBT..

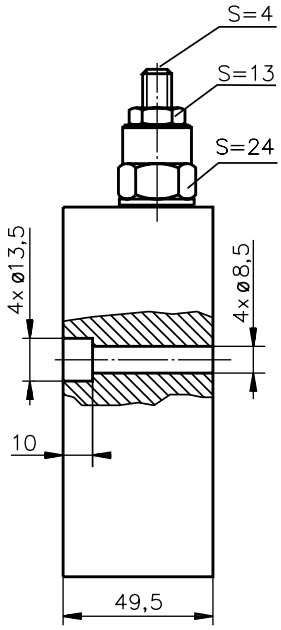


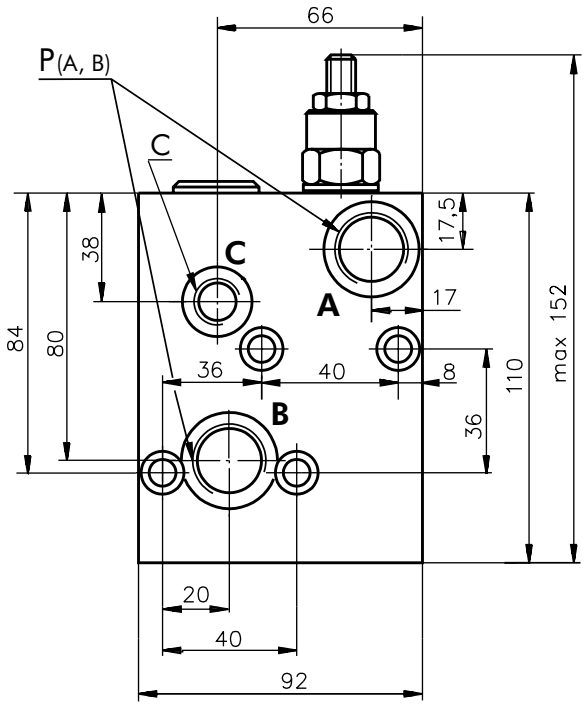
KPBV..



VALVES FOR MP, MR, MH HYDRAULIC MOTORS

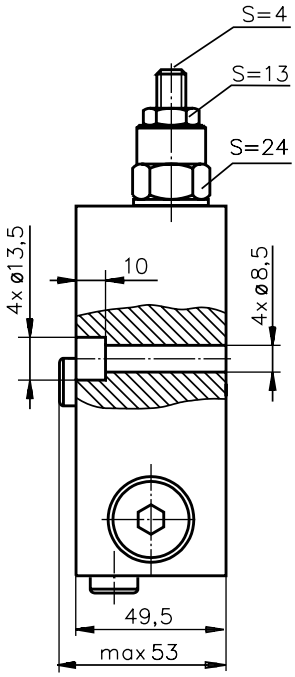
SINGLE VALVE KPBR-250/1/E...

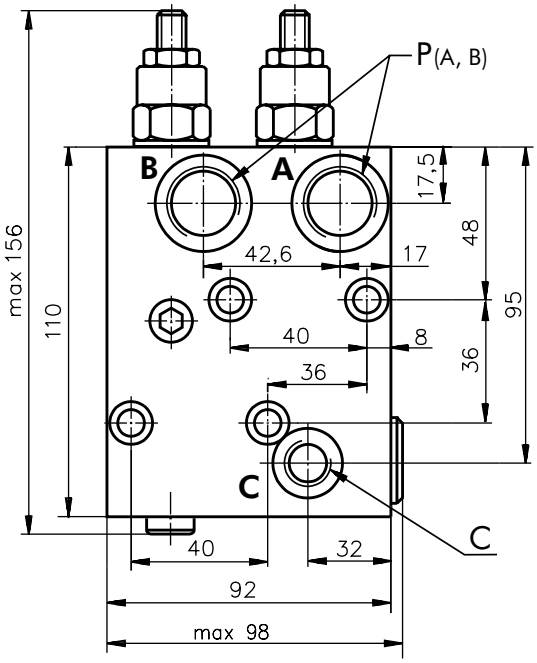




P(A, B) **:** G1/2 (M22x1,5), 17 mm depth
C **:** G1/4 (M14x1,5), 14 mm depth

DUAL VALVE KPBR-250/1/D...



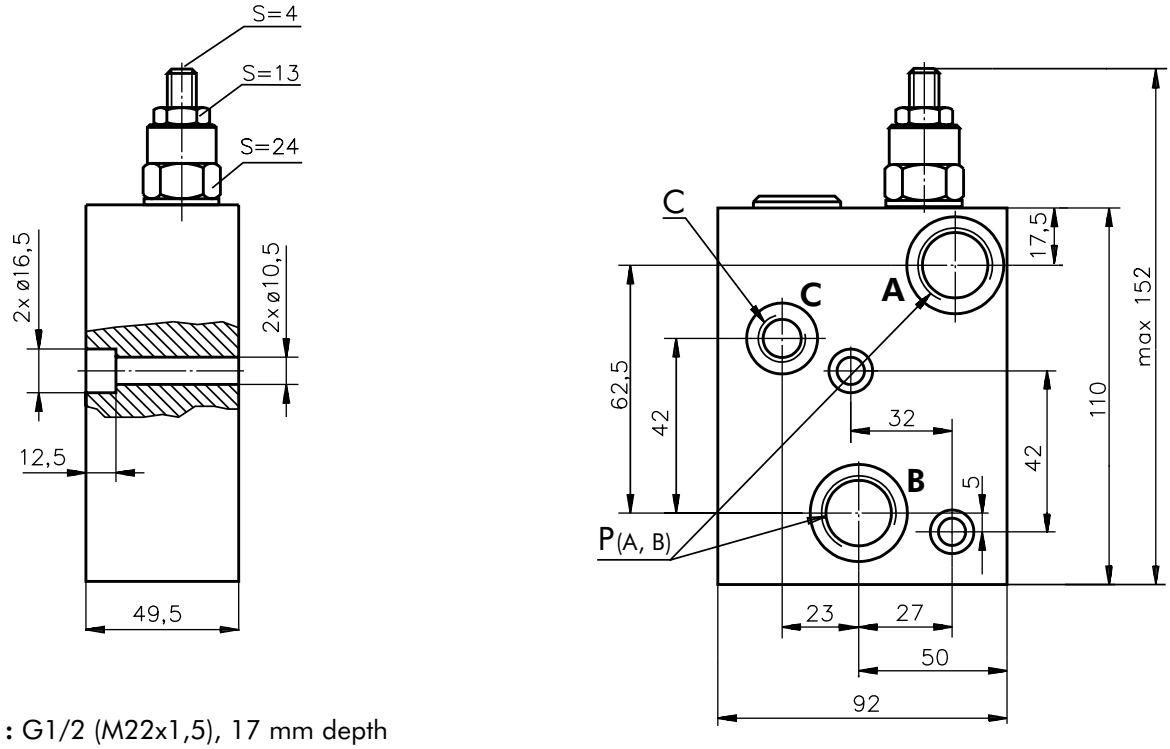


P(A, B) **:** G1/2 (M22x1,5), 17 mm depth
C **:** G1/4 (M14x1,5), 14 mm depth

Note : KPBR Blocks are installed directly on MP and MR Motors with four bolts M8x50 - 8.8 DIN 912. Tightening torque $2^{+0,5}$ daNm.

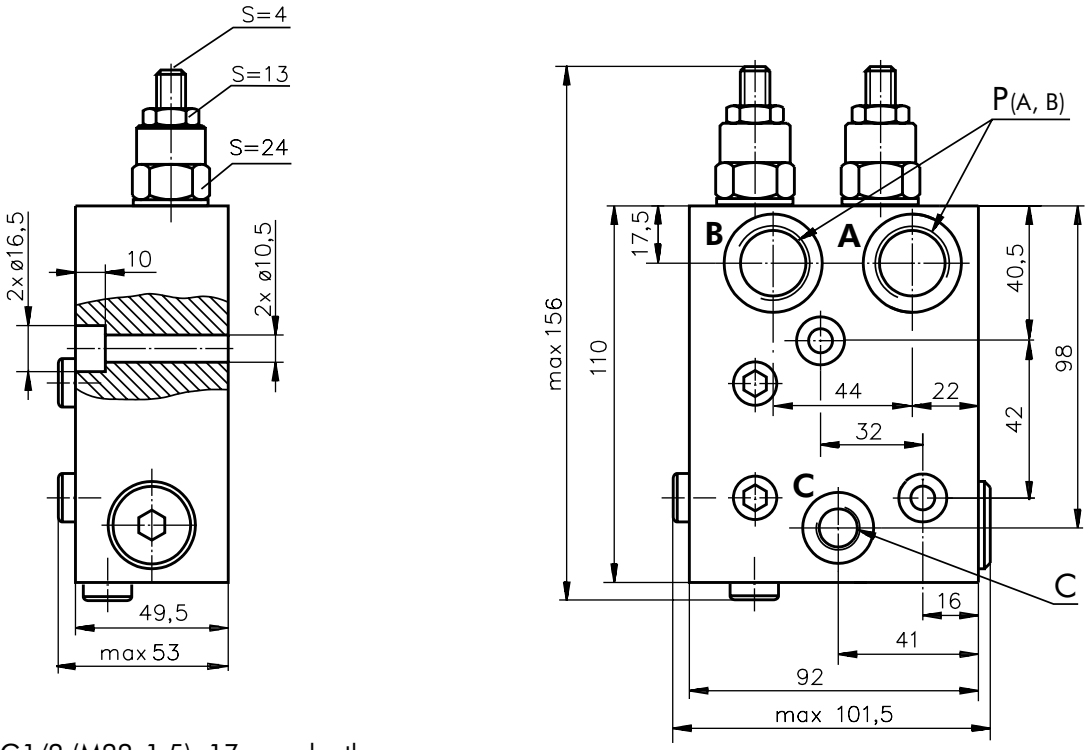
VALVES FOR MS HYDRAULIC MOTORS

SINGLE VALVE KPBS-250/1/E...



P(A, B) **:** G1/2 (M22x1,5), 17 mm depth
C **:** G1/4 (M14x1,5), 14 mm depth

DUAL VALVE KPBS-250/1/D...

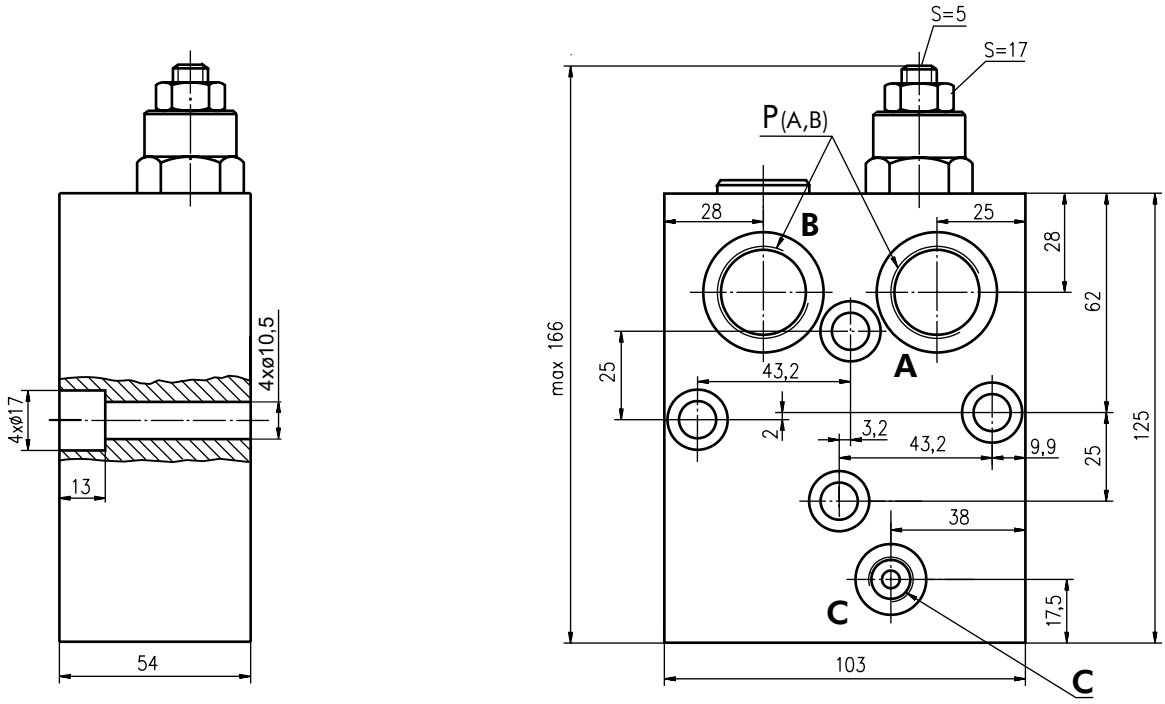


P(A, B) **:** G1/2 (M22x1,5), 17 mm depth
C **:** G1/4 (M14x1,5), 14 mm depth

Note : KPBS Blocks are installed directly on MS Motors with two bolts M10x50 - 8.8 DIN 912.
Tightening torque $4,5^{+0\,5}$ daNm.

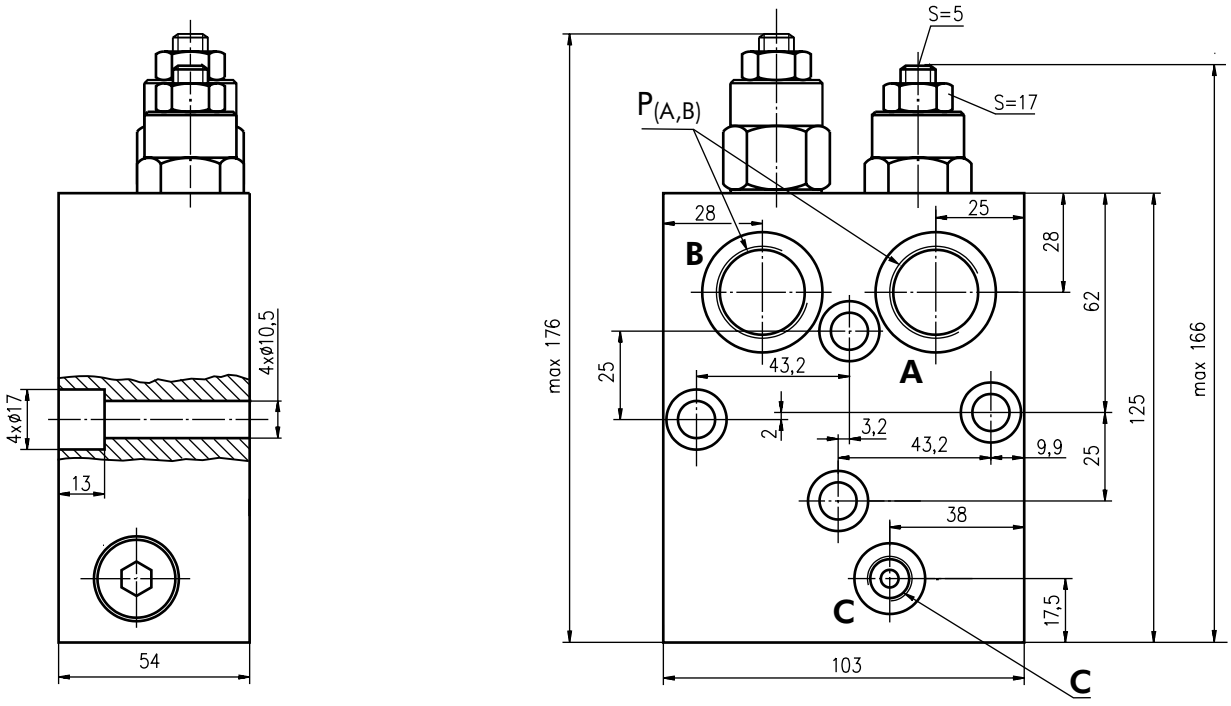
VALVES FOR MT HYDRAULIC MOTORS

SINGLE VALVE KPBT-250/1/E...



P$_{(A, B)}$ **:** G3/4 (M27x2), 17 mm depth
C **:** G1/4 (M14x1,5), 14 mm depth

DUAL VALVE KPBT-250/1/D...

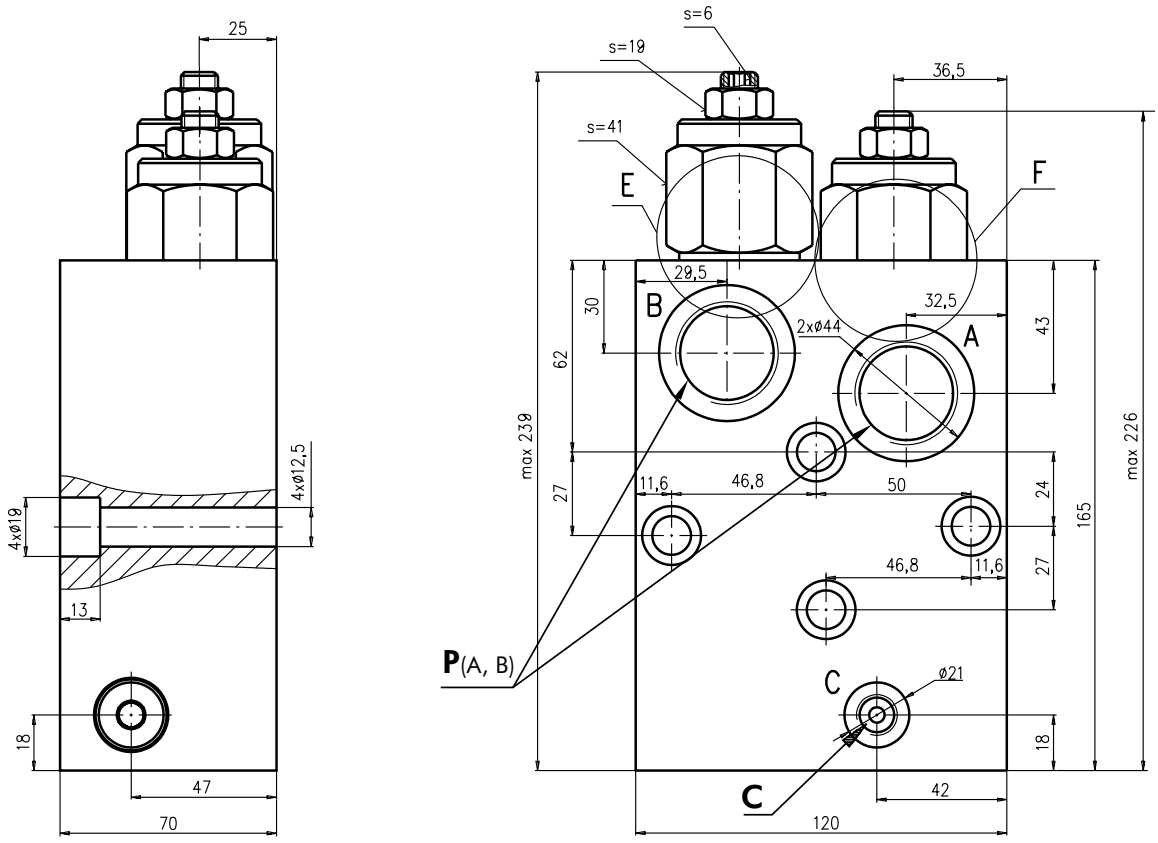


P$_{(A, B)}$ **:** G3/4 (M27x2), 17 mm depth
C **:** G1/4 (M14x1,5), 14 mm depth

Note :KPBT Blocks are installed directly on MT Motors with four bolts M10x50 - 8.8 DIN 912.
Tightening torque $4,5^{+0,5}$ daNm.

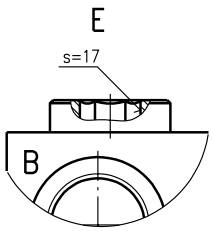
VALVES FOR MV HYDRAULIC MOTORS

DUAL VALVE KPBV-250/1/D...

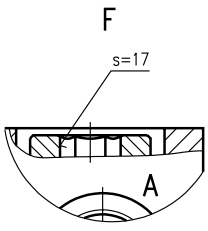


P(A, B) **:** G1-A (M33x2), 20 mm depth
C **:** G1/4 (M14x1,5), 14 mm depth

SINGLE VALVE KPBV-250/1/EA...

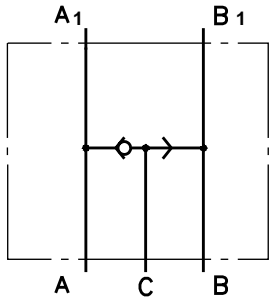


SINGLE VALVE KPBV-250/1/EB...



Note : KPBV Blocks are installed directly on MV Motors with four bolts M12x70 - 8.8 DIN 912. Tightening torque $7,5^{+0,5}$ daNm.

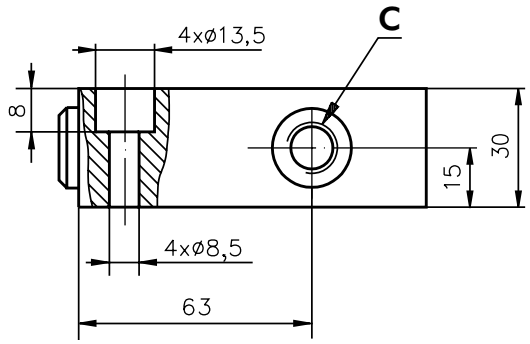
SWITCH VALVE

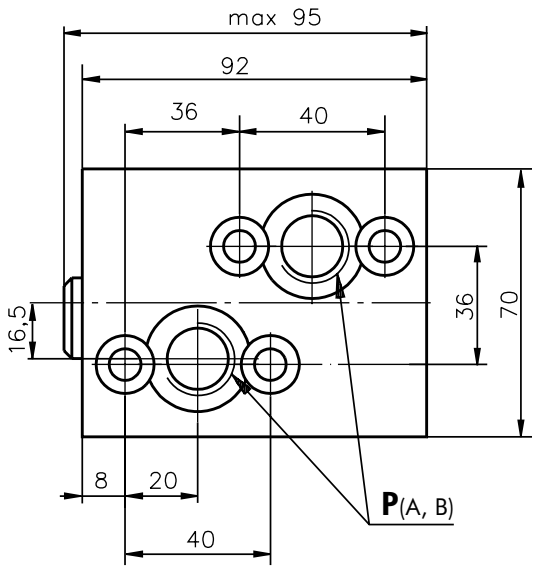


SPECIFICATION DATA

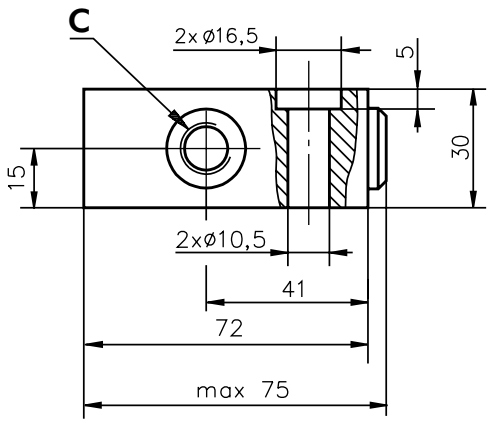
Parameters	Type	
	KPWR	KPWS
Flow Rate , l/min	60	
Rated Pressure , bar	250	
Weight , kg	0,850	0,670

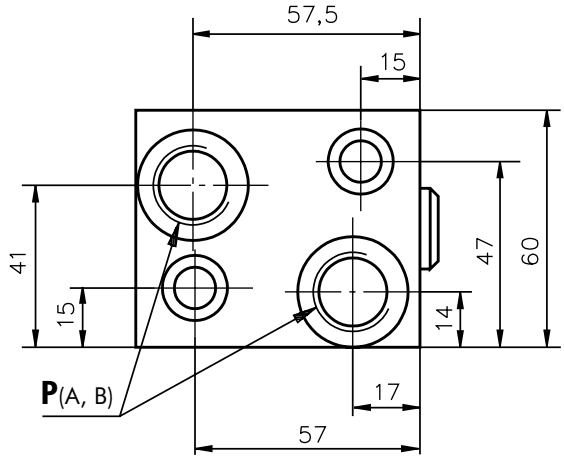
VALVE FOR MP, MR, MH HYDRAULIC MOTORS KPWR





VALVE FOR MS HYDRAULIC MOTORS KPWS





P(A, B) **:** G1/2 (M22x1,5), 17 mm depth
C **:** G1/4 (M14x1,5), 14 mm depth

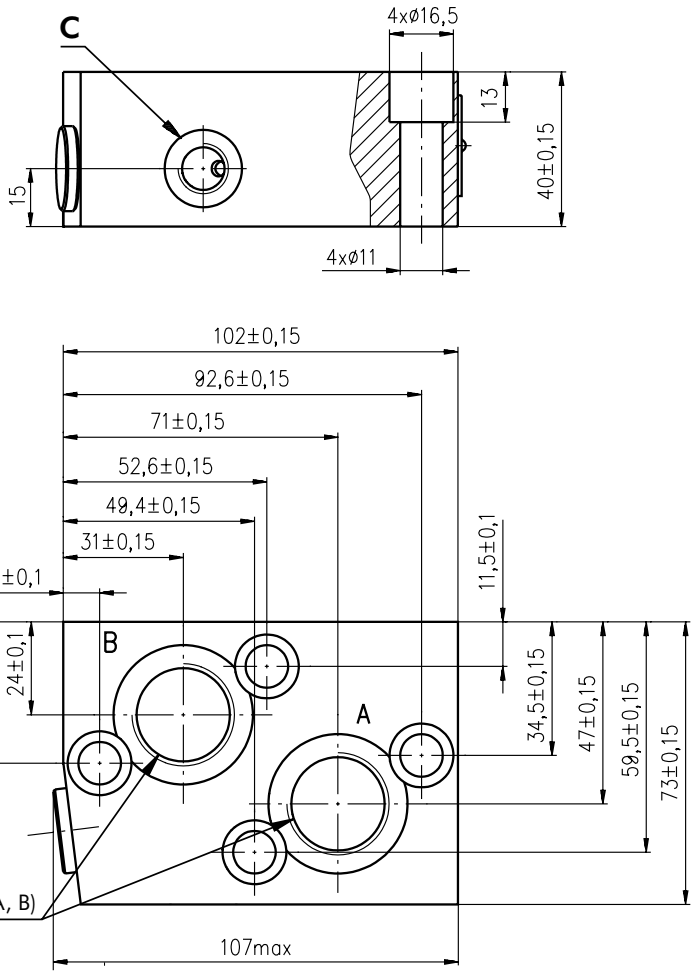
Note : KPWR Blocks are installed directly on MP and MR Motors with four bolts M8x35 - 8.8 DIN 912. Tightening torque $2^{+0,5}$ daNm.
KPWS Blocks are installed directly on MS Motors with two bolts M10x40 - 8.8 DIN 912. Tightening torque $4,5^{+0,5}$ daNm.

SWITCH VALVE (continued)

SPECIFICATION DATA

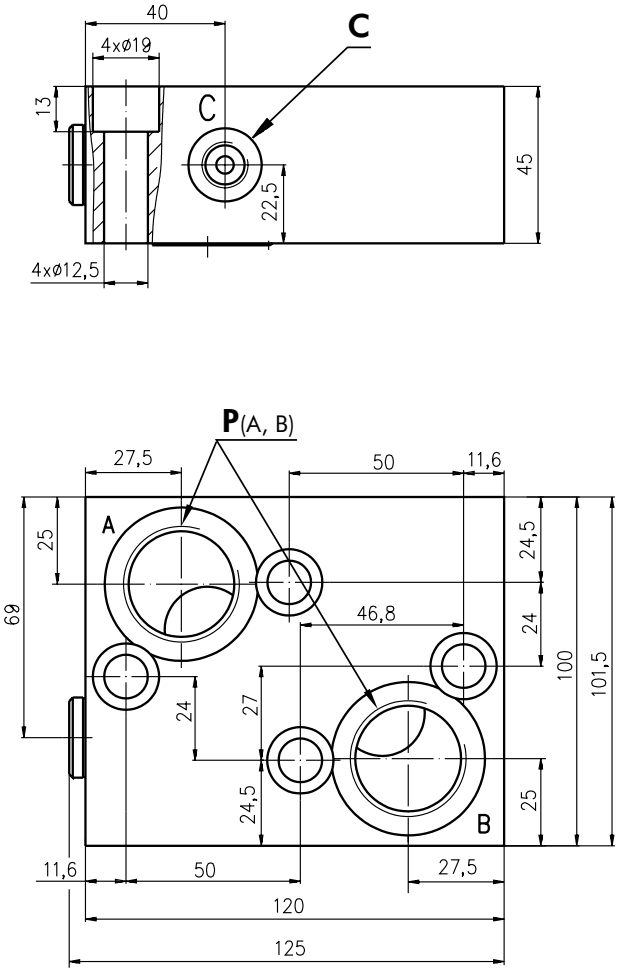
Parameters	Type	
	KPWT	KPWV
Flow Rate , l/min	100	200
Rated Pressure , bar	250	
Weight , kg	1,800	3,150

VALVE FOR MT HYDRAULIC MOTORS KPWT



P(A, B) **:** G3/4 (M27x2), 17 mm depth
C **:** G1/4 (M14x1,5), 14 mm depth

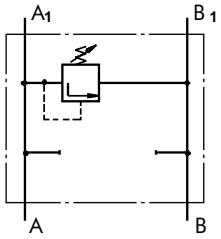
VALVE FOR MV HYDRAULIC MOTORS KPWV



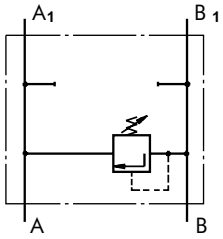
P(A, B) **:** G1-A (M33x2), 20 mm depth
C **:** G1/4 (M14x1,5), 14 mm depth

Note : KPWT Blocks are installed directly on MT Motors with four bolts M10x40 - 8.8 DIN 912.
Tightening torque $4,5^{+0,5}$ daNm.
KPWV Blocks are installed directly on MV Motors with four bolts M12x45 - 8.8 DIN 912.
Tightening torque $7,5^{+0,5}$ daNm.

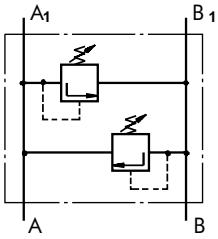
CROSSOVER RELIEF VALVES



Single Crossover
Relief Valve
type KPEA ...



Single Crossover
Relief Valve
type KPEB ...



Dual Crossover
Relief Valve
type KPD ...

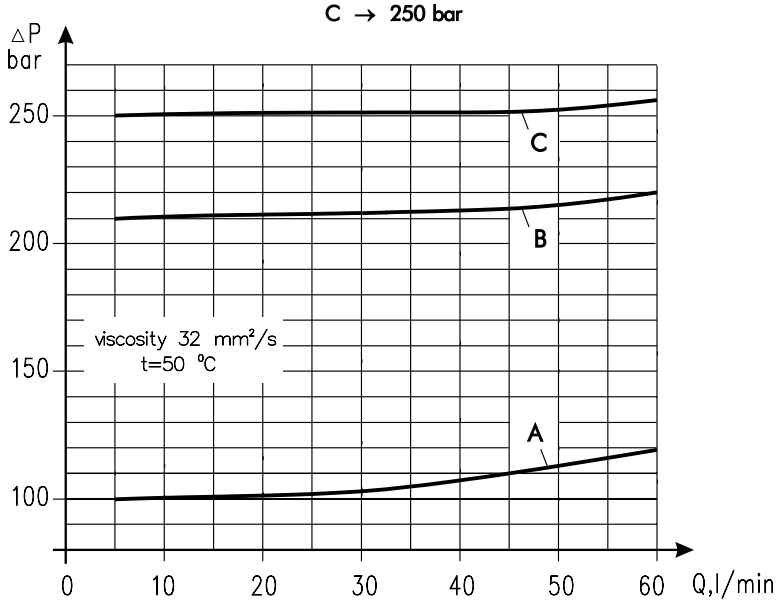
SPECIFICATION DATA

Parameters	Type			
	KPER	KPDR	KPES	KPDS
Flow Rate , l/min	60			
Rated Pressure*, bar	30 to 100; 50 to 210; 80 to 300			
Weight , kg	1,55		1,50	

*Pressure Settings are at flow rate of
5 l/min and viscosity 32 mm^2/s (50 ^0C).

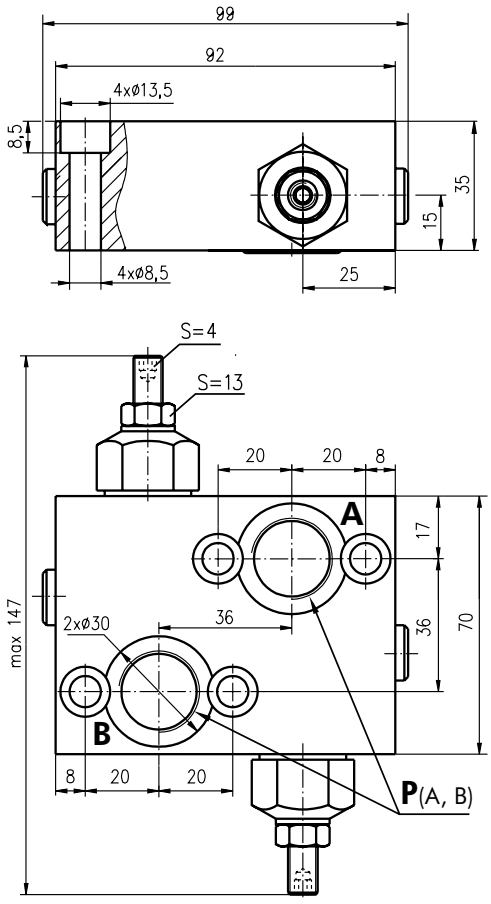
RATED PRESSURE

A → 100 bar
B → 210 bar
C → 250 bar

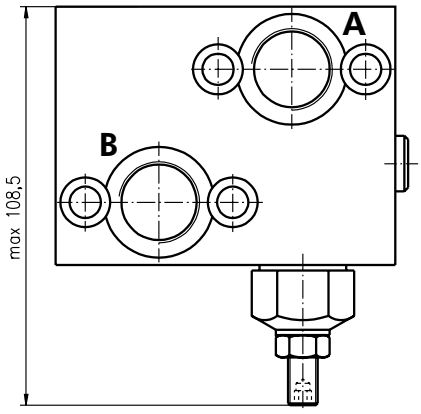


VALVES FOR MP, MR, MH HYDRAULIC MOTORS

DUAL VALVE KPDR/...



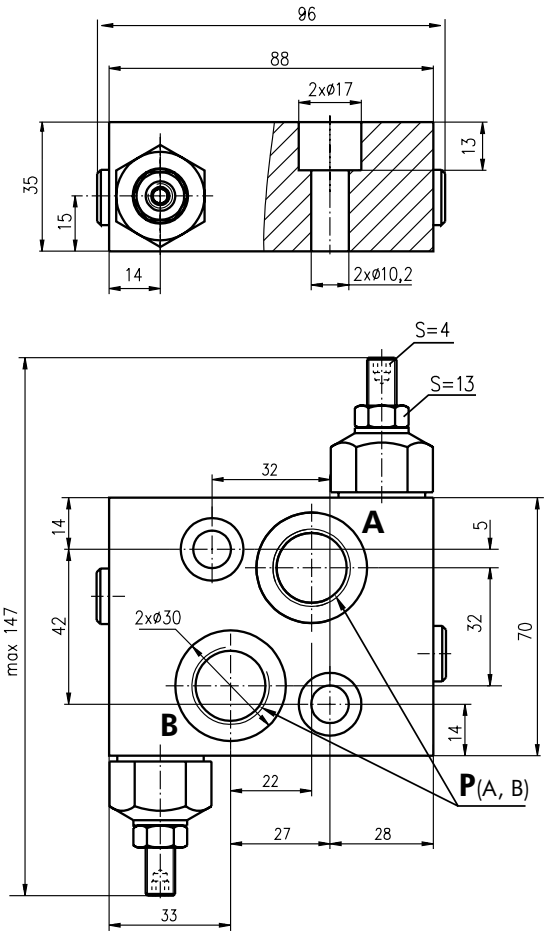
SINGLE VALVES KPER/...



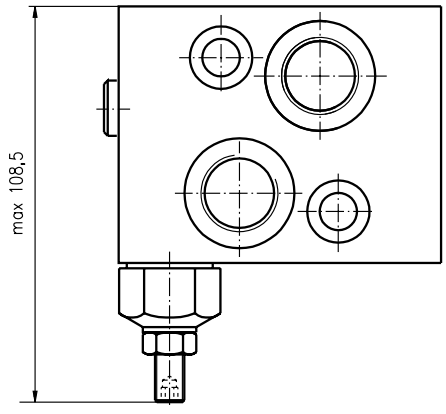
P(A, B) **:** G1/2 (M22x1,5), 20 mm depth

VALVES FOR MS HYDRAULIC MOTORS

DUAL VALVE KPDS/...



SINGLE VALVES KPES/...



P(A, B) **:** G1/2 (M22x1,5), 20 mm depth

Note: -KPDR (KPER) Blocks are installed directly on MP and MR Motors with four bolts M8x40-8.8 DIN 912. Tightening torque $2^{+0,5}$ daNm.

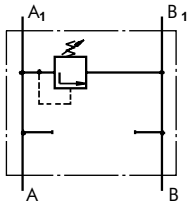
-KPDS (KPES) Blocks are installed directly on MS Motors with two bolts M10x35-8.8 DIN 912. Tightening torque $4,5^{+0,5}$ daNm.

VALVE FOR MT HYDRAULIC MOTORS

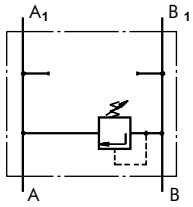
SPECIFICATION DATA

Parameters	Type	
	KPET	KPDT
Flow Rate , l/min	120	
Rated Pressure*, bar	80 to 210	
Weight , kg	5,10	5,54

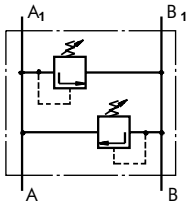
*Pressure Settings are at flow rate of 5 l/min and viscosity 32 mm^2/s (50 ^0C).



Single Crossover Relief Valve type KPEAT ...

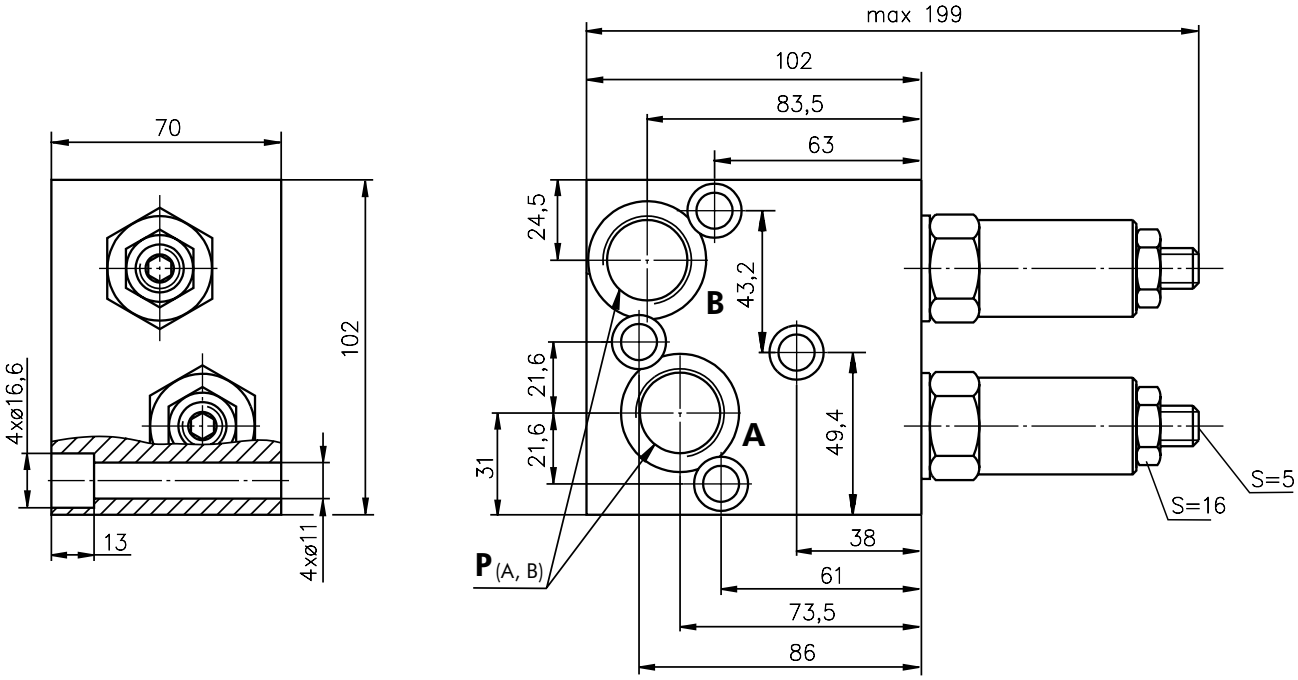


Single Crossover Relief Valve type KPEBT ...

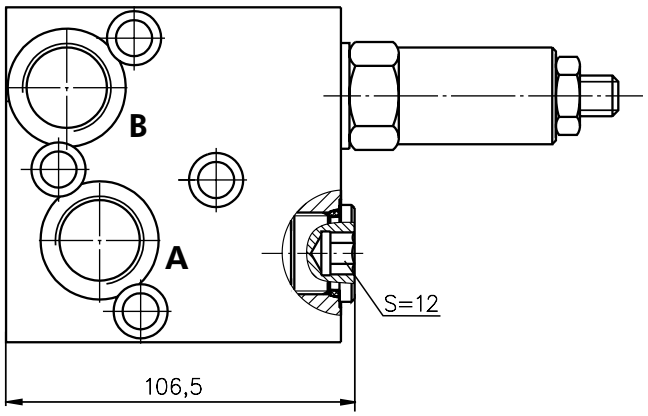


Dual Crossover Relief Valve type KPDT ...

DUAL VALVE KPDT .../...



SINGLE VALVE KPET.../...



P (A, B)**:** G3/4 (M27x2), 20 mm depth

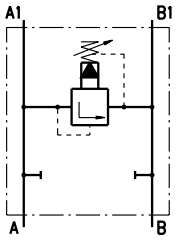
Note :KPDT (KPET) Blocks are installed directly on MT Motors with four bolts M10x70 - 8.8 DIN 912. Tightening torque $4,5^{+0,5}$ daNm.

VALVE FOR MV HYDRAULIC MOTORS

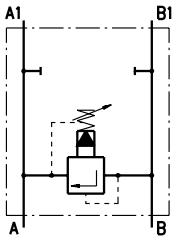
SPECIFICATION DATA

Parameters	Type		
	KPEAV	KPEBV	KPDV
Flow Rate , l/min	200		
Rated Pressure*, bar	10 to 100; 20 to 250		
Weight , kg	4,9	7,1	8,00

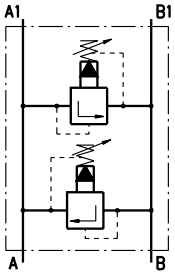
*Pressure Settings are at flow rate of 5 l/min and viscosity 32 mm^2/s (50 ^0C).



Single Crossover Relief Valve type KPEAV ...

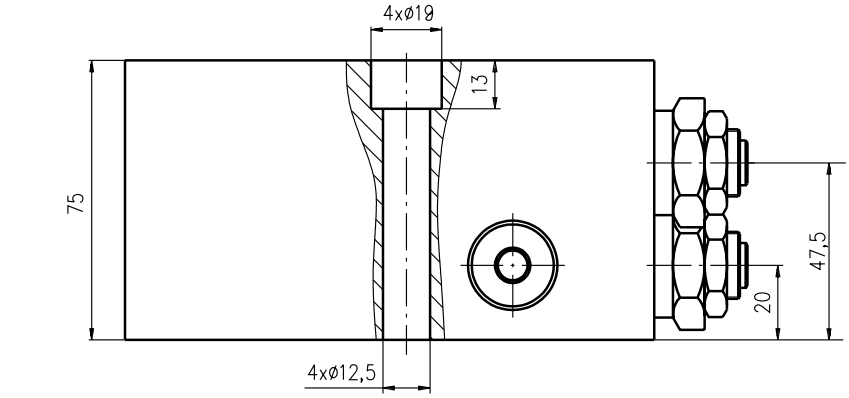


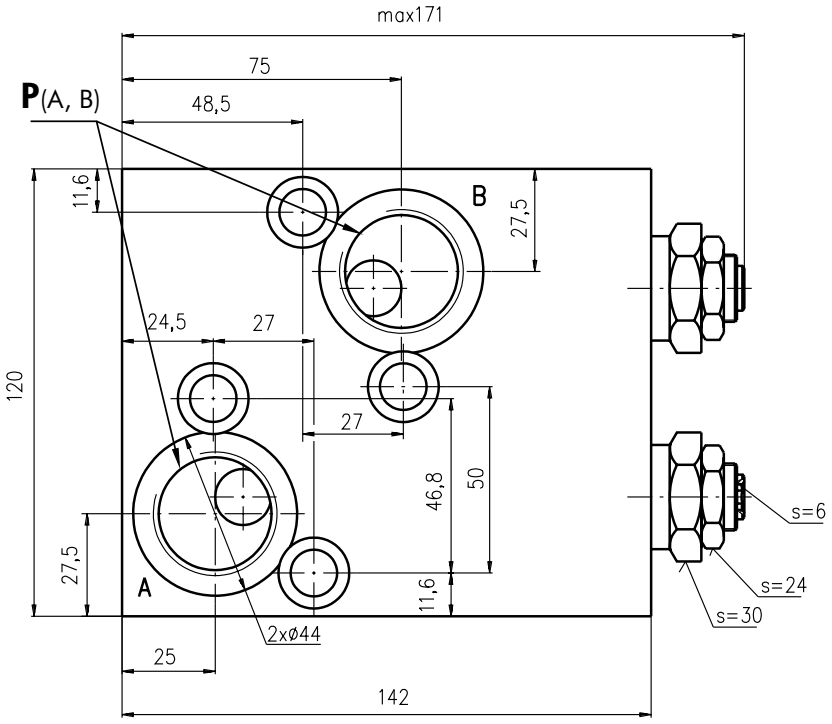
Single Crossover Relief Valve type KPEBV ...



Dual Crossover Relief Valve type KPDV ...

DUAL VALVE KPDV .../...

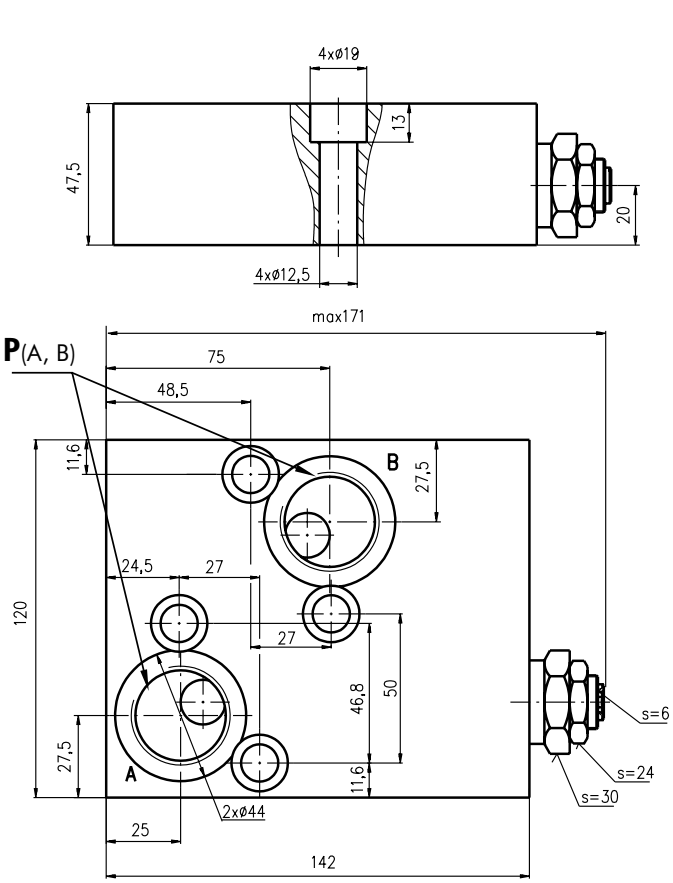




P$_{(A, B)}$: G1-A (M33x2), 20 mm depth

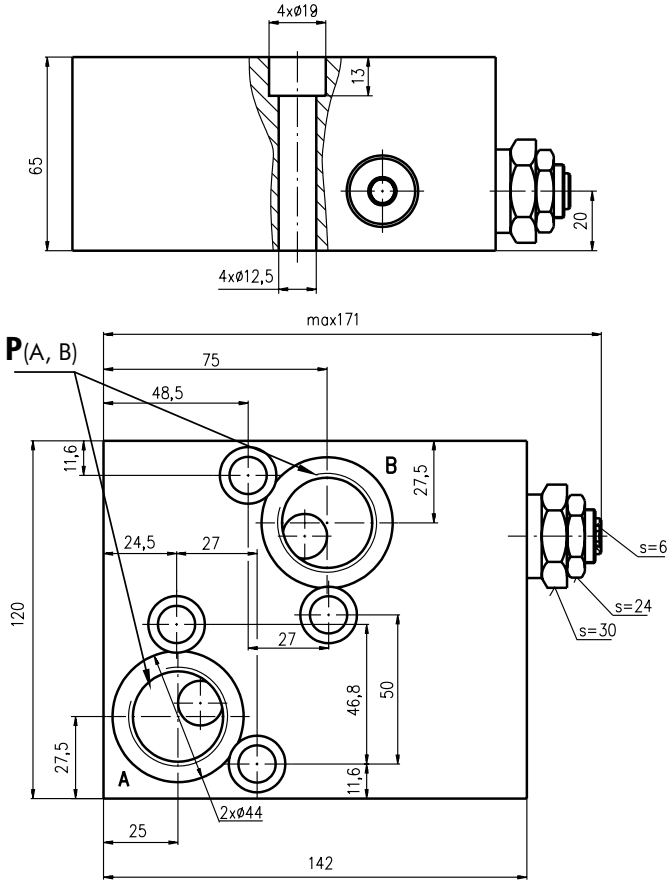
Note :KPDV Blocks are installed directly on MV Motors with four bolts M12x75 - 8.8 DIN 912. Tightening torque $7,5^{+0,5}$ daNm.

SINGLE VALVE KPEAV .../...



P$_{(A, B)}$ **:** G1-A (M33x2), 20 mm depth

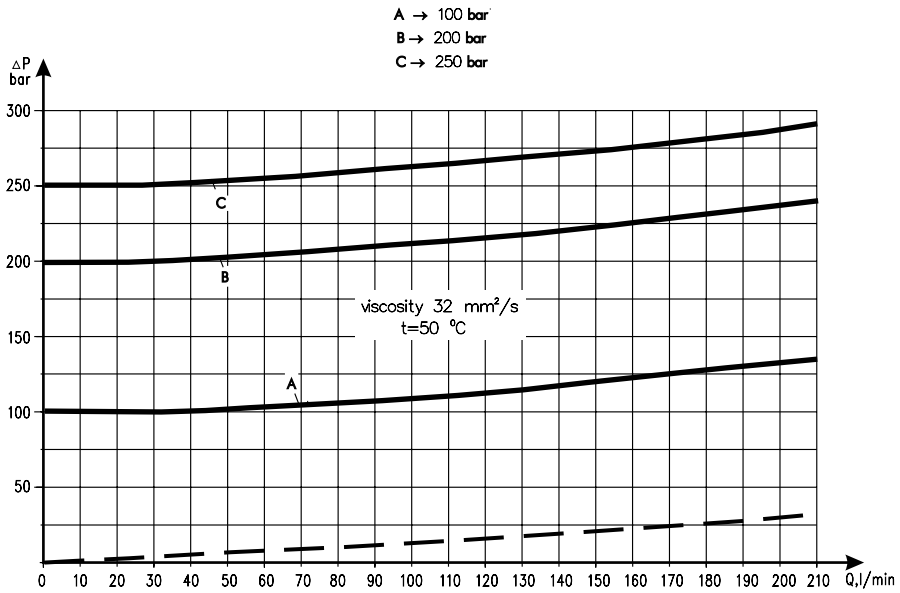
SINGLE VALVE KPEBV .../...



P$_{(A, B)}$ **:** G1-A (M33x2), 20 mm depth

Note : KPEAV Blocks are installed directly on MV Motors with four bolts M12x50 - 8.8 DIN 912.
KPEBV Blocks are installed directly on MV Motors with four bolts M12x65 - 8.8 DIN 912.
Tightening torque $7,5^{+0,5}$ daNm.

Rated Pressure



ORDER CODE - OVERCENTER VALVES WITH BRAKE CONTROL

	1		2		3		4	5	6	7
K P B		**-**		**/**		**/**				

Pos.1 - **Housing Type**

R - Valve block for MP and MR Motors
S - Valve block for MS Motors
T - Valve block for MT Motors
V - Valve block for MV Motors

Pos.2 - **Rated Pressure, bar**

250 - 70÷250, Std Setting 250 bar@5 lpm

Pos.3 - **Pilot Ratio**

1 -4,25 : 1

Pos.4 - **Number of Valves**

D - Two Valves - Dual
EA - One Valve on line A - Single
EB - One Valve on line B - Single

Pos.5 - **Ports**

omit - BSPP (ISO 228)
M - Metric (ISO 262)

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

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

Pos.7 - **Design Series**

omit - Factory specified

NOTES:
* The color is by customer's request.

ORDER CODE - SWITCH VALVES

	1	2	3	4
K P W				

Pos.1 - **Housing Type**

R - Valve block for MP and MR Motors
S - Valve block for MS Motors
T - Valve block for MT Motors
V - Valve block for MV Motors

Pos.2 - **Ports**

omit - BSPP (ISO 228)
M - Metric (ISO 262)

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

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

Pos.4 - **Design Series**

omit - Factory specified

NOTES: * The color is by customer's request.

ORDER CODE - CROSSOVER RELIEF VALVES

	1	2	3		4	5	6
K P				**/**			

Pos.1 - **Number of Valves**

D - Two Valves - Dual
EA - One Valve on line A - Single
EB - One Valve on line B - Single

Pos.2 - **Housing Type**

R - Valve block for MP, MR and MH Motors
S - Valve block for MS Motors
T - Valve block for MT Motors
V - Valve block for MV Motors

Pos. 3 - **Max. pressure range, bar** (see page 21 and 24)

100* - 30÷100, Std Setting 100 bar@5 lpm
210* - 50÷210, Std Setting 210 bar@5 lpm
300* - 80÷300, Std Setting 250 bar@5 lpm
210** - 80÷210, Std Setting 210 bar@5 lpm
100*** - 10÷100, Std Setting 100 bar@5 lpm
250*** - 20÷250, Std Setting 250 bar@5 lpm

Pos.4 - **Ports**

omit - BSPP (ISO 228)
M - Metric (ISO 262)

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

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

Pos.6 - **Design Series**

omit - Factory specified

NOTES:
* Useful for types **R** and **S** only .
** Useful for types **T** only .
*** Useful for types **V** only .
**** The color is by customer's request.
The Valve Blocks are mangano-phosphatized as standard.