Type code

01	02	03	04	05	06	07	08		09	10	11		12	13	14	15	16	17	18	19		20
	A6V		**M**					**/**	**63**	**W**		**–**	**V**								**–**	

Hydraulic fluid

01	Mineral oil and HFD. HFD for sizes 250 to 1000 only in conjunction with long-life bearings “L” (without code)		
	HFB, HFC hydraulic fluid	Sizes 28 (without code)	
		Sizes 250 to 1000 (only in conjunction with long-life bearings “L”)	**E**

Axial piston unit

02	Bent-axis design, variable	**A6V**

Drive shaft bearing		**250**	**355**	**500**	**1000**	
03	Standard bearings (without code)	●	●	●	–	
	Long-life bearings	●	●	●	●	**L**

Operating mode

04	Motor (plug-in motor A6VE, see data sheet 91606)	**M**

Size (NG)

		28	**250**	**355**	**500**	**1000**
05	Geometric displacement, see page 8					

Control device[1)]

06	Proportional control, hydraulic	Δp_{St} = 10 bar	●	●	●	●	●	**HD1**
		Δp_{St} = 25 bar	●	●	●	●	●	**HD2**
		Δp_{St} = 35 bar	–	●	●	●	●	**HD3**
	Proportional control, electric	U = 12 V	●	●	●	●	●	**EP1**
		U = 24 V	●	●	●	●	●	**EP2**
	Two-point control, hydraulic		–	●	●	●	●	**HZ**
			●	–	–	–	–	**HZ1**
			–	–	–	–	–	**HZ3**
	Two-point control, electric	U = 12 V	●	●	●	●	●	**EZ1**
		U = 24 V	●	●	●	●	●	**EZ2**
		U = 12 V	–	–	–	–	–	**EZ3**
		U = 24 V	–	–	–	–	–	**EZ4**
	Automatic control, high-pressure related	With minimum pressure increase Δp ≤ approx. 10 bar	●	●	●	●	●	**HA1**
		With pressure increase Δp = 100 bar	●	●	●	●	●	**HA2**
	Automatic control, speed related							
	p_{St}/p_{HD} = 3/100	Hydraulic travel direction valve	–	●	●	●	○	**DA**
	p_{St}/p_{HD} = 5/100	Hydraulic travel direction valve	●	–	–	–	–	**DA1**
		Electric travel direction valve + electric $V_{g\,max}$ circuit, U = 12 V	●	–	–	–	–	**DA2**
		Electric travel direction valve + electric $V_{g\,max}$ circuit, U = 24 V	●	–	–	–	–	**DA3**
	p_{St}/p_{HD} = 8/100	Hydraulic travel direction valve	●	–	–	–	–	**DA4**
		Electric travel direction valve + electric $V_{g\,max}$ circuit, U = 12 V	●	–	–	–	–	**DA5**
		Electric travel direction valve + electric $V_{g\,max}$ circuit, U = 24 V	●	–	–	–	–	**DA6**

Pressure control/override (only for HD, EP)			**28**	**250**	**355**	**500**	**1000**	
07	Without pressure control/override		●	●	●	●	●	
	Pressure control	fixed setting	●	●	●	●	●	**D**
		Hydraulic override, two-point	●	[2)]	[2)]	[2)]	[2)]	**E**
		Hydraulic remote control, proportional	–	●	●	●	●	**G**

● = Available ○ = On request – = Not available

01	02	03	04	05	06	07	08		09	10	11		12	13	14	15	16	17	18	19		20
	A6V		**M**					**/**	**63**	**W**		**–**	**V**								**–**	

Overrides for the HA1 and HA2 controls

			28	250	355	500	1000	
08	Without override (without code)		●	●	●	●	●	
	Hydraulic override, remote control, proportional		●	●	●	●	●	**T**
	Remote control electric override, two-point	U = 12 V	●	–	–	–	–	**U1**
		U = 24 V	●	–	–	–	–	**U2**
	Electric override	U = 12 V	●	–	–	–	–	**R1**
	+ travel direction valve, electric	U = 24 V	●	–	–	–	–	**R2**

Series

09	Series 6, index 3	**63**

Direction of rotation

10	Viewed on drive shaft, bidirectional	**W**

Setting ranges for displacement[3]

			28	250	355	500	1000	
11	$V_{g\,min}$ = 0 to 0.7 $V_{g\,max}$		●	–	–	–	–	
	$V_{g\,min}$ = 0 to 0.4 $V_{g\,max}$	$V_{g\,max}$ = $V_{g\,max}$ to 0.8 $V_{g\,max}$	–	●	●	●	●	**1**
	$V_{g\,min}$ > 0.4 $V_{g\,max}$ to 0.8 $V_{g\,max}$	$V_{g\,max}$ = $V_{g\,max}$ to 0.8 $V_{g\,max}$	–	●	●	●	●	**2**

Sealing material

12	FKM (fluoroelastomer)	**V**

Drive shaft

			28	250	355	500	1000	
13	Splined shaft DIN 5480		●	–	–	–	–	**A**
			●	●	●	●	●	**Z**
	Parallel keyed shaft DIN 6885		–	●	●	●	●	**P**

Mounting flange

			28	250	355	500	1000	
14	ISO 3019-2	4-hole	●	●	–	–	–	**B**
		8-hole	–	–	●	●	●	**H**

Port plate for working line[4]

				28	250	355	500	1000	
15	SAE working ports **A** and **B** at rear	**01**	0	●	●	●	●	●	**010**
			7	●	●	●	●	●	**017**
	SAE working ports **A** and **B** lateral, opposite	**02**	0	●	●	●	●	●	**020**
			7	●	●	●	●	●	**027**
	SAE working ports **A** and **B** lateral, opposite + rear	**15**	0	–	●	●	●	●	**150**
	Port plate with 1-stage pressure relief valves for mounting a counterbalance valve[5]	**38**	0	–	●[6]	–	–	–	**380**
			8	–	●[6]	–	–	–	**388**

Valve (see page 48)

Without valve	**0**
Flushing and boost-pressure valve, mounted	**7**
Counterbalance valve mounted[7]	**8**

● = Available ○ = On request – = Not available

01	02	03	04	05	06	07	08		09	10	11		12	13	14	15	16	17	18	19		20
	A6V		**M**					**/**	**63**	**W**		**–**	**V**								**–**	

Speed sensor (see page 51)		**28**	**250**	**355**	**500**	**1000**[8)]	
16	Without speed sensor (without code)	●	●	●	●	●	**0**
	Prepared for HDD speed sensor	▲	●	●	●	–	**F**
	HDD speed sensor mounted[9)]	▲	●	●	●	–	**H**
	Prepared for DSM/DSA speed sensor	●	–	–	–	–	**U**
	DSM/DSA speed sensor mounted[9)]	●	–	–	–	–	**V**

Swivel angle sensor (see page 50)		**28**	**250**	**355**	**500**	**1000**	
17	Without swivel angle sensor	●	●	●	●	–	
	Optical swivel angle sensor	–	●	●	●	●	**V**
	Electric swivel angle sensor	–	●	●	●	●	**E**

Connector for solenoids (see page 47)		**28**	**250 to 1000**	
18	Without connector (without solenoid, with hydraulic control only) (sizes 250 to 1000)	●	–	**0**
		–	●	
	DEUTSCH molded connector, 2-pin – without suppressor diode	●	–	**P**
	HIRSCHMANN connector – without suppressor diode	–	●	

Beginning of control		**28**	**250**	**355**	**500**	**1000**	
19	At $V_{g\,min}$ (standard for HA)	●	●	●	●	●	**A**
	At $V_{g\,max}$ (standard for HD, HZ, EP, EZ, DA)	●	●	●	●	●	**B**

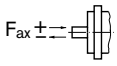
Standard / special version		
20	Standard version	
	Standard version with installation variants, e.g. **T** ports open and closed contrary to standard	**-Y**
	Special version	**-S**

● = Available ○ = On request ▲ = Not for new projects – = Not available

Technical data

Size		NG		28	250	355	500	1000
Geometric displacement, per revolution[1)]		$V_{g\,max}$	cm³	28.1	250	355	500	1000
		$V_{g\,min}$	cm³	0	0	0	0	0
		$V_{g\,x}$	cm³	18	205	300	417	1000
Maximum rotational speed[2)] (while adhering to the maximum permissible inlet flow)	at $V_{g\,max}$	n_{nom}	rpm	5550	2700	2240	2000	1600
	at $V_g < V_{g\,x}$ (see diagram on page 8)	n_{max}	rpm	8750	3300	2650	2400	1600
	where $V_{g\,0}$	n_{max}	rpm	10450	3300	2650	2400	1600
Inlet flow[3)]	at n_{nom} and $V_{g\,max}$	$q_{v\,max}$	l/min	156	675	795	1000	1600
Torque	at $V_{g\,max}$ and Δp = 400 bar	T	Nm	179	–	–	–	–
	at $V_{g\,max}$ and Δp = 350 bar	T	Nm	157	1391	1978	2785	5571
Rotary stiffness	$V_{g\,max}$ to $V_g/2$	c_{min}	kNm/rad	6	60	75	115	281
	$V_g/2$ to 0 (interpolated)	c_{min}	kNm/rad	18	181	262	391	820
Moment of inertia for rotary group		J_{TW}	kgm²	0.0014	0.061	0.102	0.178	0.55
Maximum angular acceleration		α	rad/s²	47000	10000	8300	5500	4000
Case volume		V	l	0.5	3.00	5.0	7.0	16.0
Weight approx.		m	kg	16	100	170	210	430

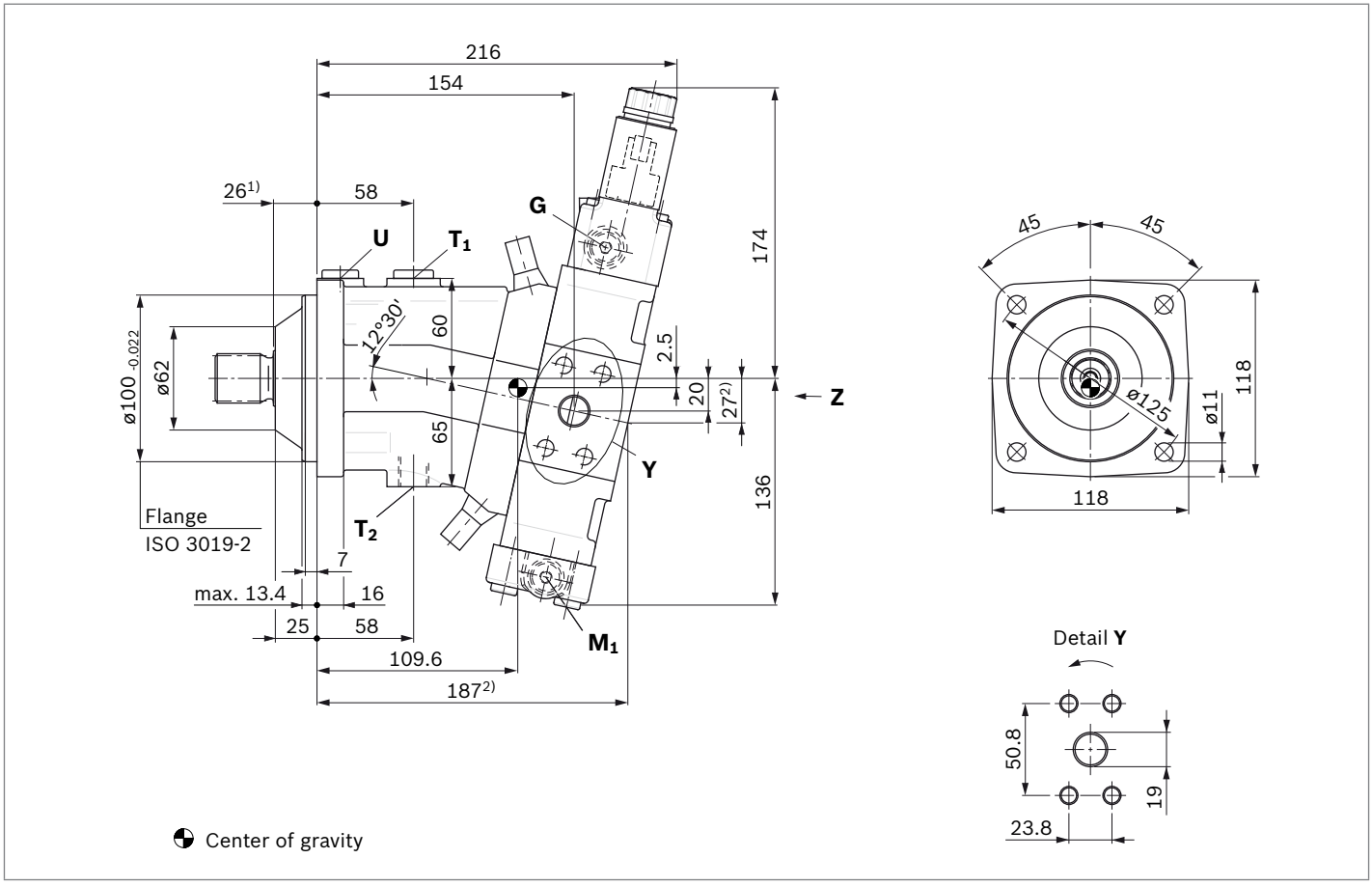
Permissible radial and axial forces of the drive shafts

Size		NG		28	28	250	250	355	355	500	500	1000	1000
Drive shaft		Code		A	Z	Z	P	Z	P	Z	P	Z	P
	Splined shaft			W30	W25	W50	–	W60	–	W70	–	W90	–
	Keyed shaft	ø	mm	–	–	–	50	–	60	–	70	–	90
Maximum radial force at distance a (from shaft collar) 		$F_{q\ max}$	N	4838	6436	1200[1)]	1200[1)]	1500[1)]	1500[1)]	1900[1)]	1900[1)]	2600[1)]	2600[1)]
		a	mm	17.5	14.0	41.0	41.0	52.5	52.5	52.5	52.5	67.5	67.5
Maximum torque at $F_{q\ max}$		$T_{q\ max}$	Nm	179	179	[2)]	[2)]	[2)]	[2)]	[2)]	[2)]	[2)]	[2)]
Maximum differential pressure at V_{gmax} and $F_{q\ max}$		$\Delta p_{q\ max}$	bar	400	400	[2)]	[2)]	[2)]	[2)]	[2)]	[2)]	[2)]	[2)]
Maximum axial force at standstill or depressurized operation 		+ $F_{ax\ max}$	N	0	0	0	0	0	0	0	0	0	0
		− $F_{ax\ max}$	N	315	315	1200	1200	1500	1500	1900	1900	2600	2600
Permissible axial force per bar working pressure		+ $F_{ax\ perm/bar}$	N/bar	4.6	4.6	[2)]	[2)]	[2)]	[2)]	[2)]	[2)]	[2)]	[2)]

Dimensions, sizes 28

EP1, EP2 – Proportional control, electric

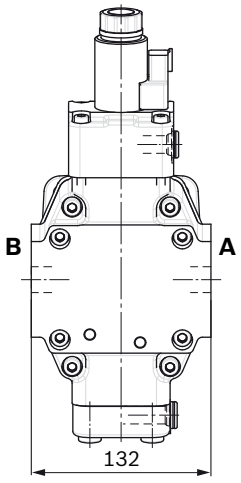
Port plate 2 — SAE working ports **A** and **B** lateral, opposing



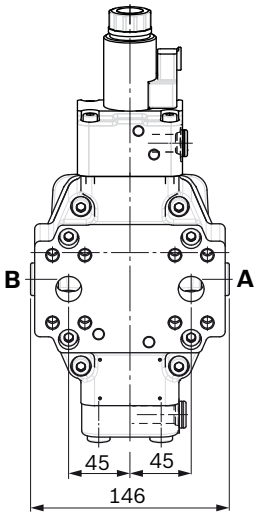
Ports		Standard	Size[3)]	$p_{max\ abs}$ [bar][4)]	State[8)]
A, B	Working port Fastening thread	SAE J518[5)] DIN 13	3/4 in M10 × 1.5; 17 deep	450	O
T_1	Drain port	DIN 3852[7)]	M18 × 1.5; 12 deep	3	X[6)]
T_2	Drain port	DIN 3852[7)]	M18 × 1.5; 12 deep	3	O[6)]
G	Synchronous control	DIN 3852[7)]	M14 × 1.5; 12 deep	450	X
G_2	2nd pressure setting (HD.E, EP.E)	DIN 3852[7)]	M14 × 1.5; 12 deep	100	X
U	Bearing flushing	DIN 3852[7)]	M16 × 1.5; 12 deep	3	X
X	Pilot signal (HD, HZ, HA1T/HA2T)	DIN 3852[7)]	M14 × 1.5; 12 deep	100	O
X	Pilot signal (HA1, HA2)	DIN 3852[7)]	M14 × 1.5; 12 deep	3	X
X_1, X_2	Pilot signal (DA1, DA4)	DIN 2353-CL	8B-ST	40	O
X_1	Pilot signal (DA2, DA3, DA5, DA6)	DIN 3852[7)]	M14 × 1.5; 12 deep	40	O
X_3	Pilot signal (DA2, DA3, DA5, DA6)	DIN 3852[7)]	M14 × 1.5; 12 deep	40	X
M_1	Stroking chamber measurement	DIN 3852[7)]	M14 × 1.5; 12 deep	450	X

▼ **Location of the working ports on the port plates** (view **Z**)

2 SAE working ports **A** and **B** lateral, opposite

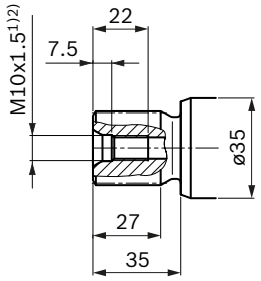


1 SAE working ports **A** and **B** at rear



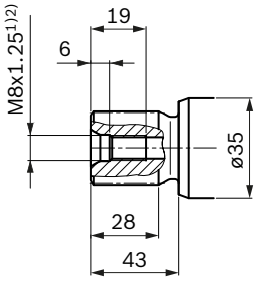
▼ **Splined shaft DIN 5480**

A – W30×2×14×9g

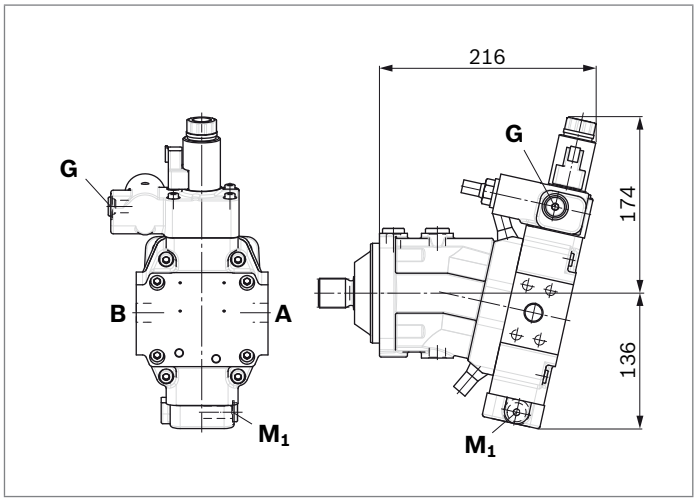


▼ **Splined shaft DIN 5480**

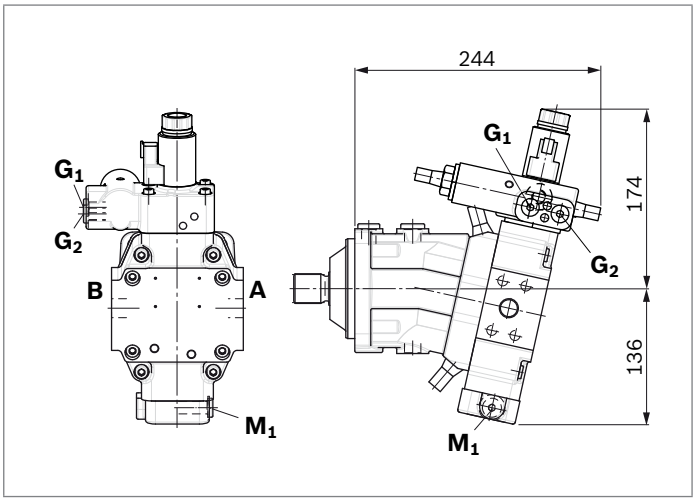
Z – W25×1.25×18×9g



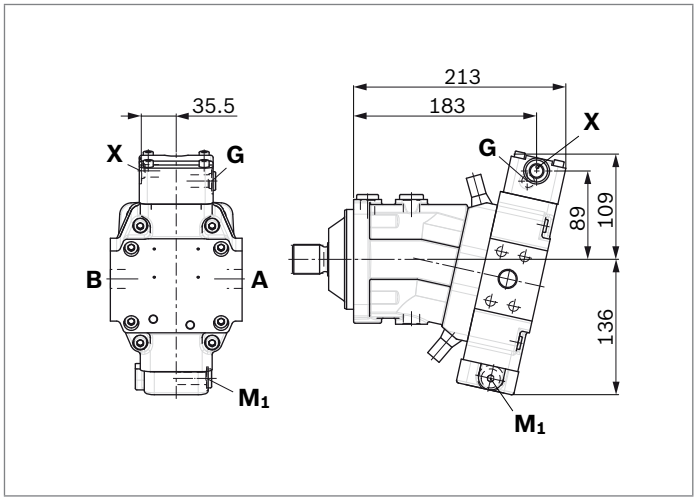
▼ **EP.D** – Proportional control, electric, with pressure control fixed setting



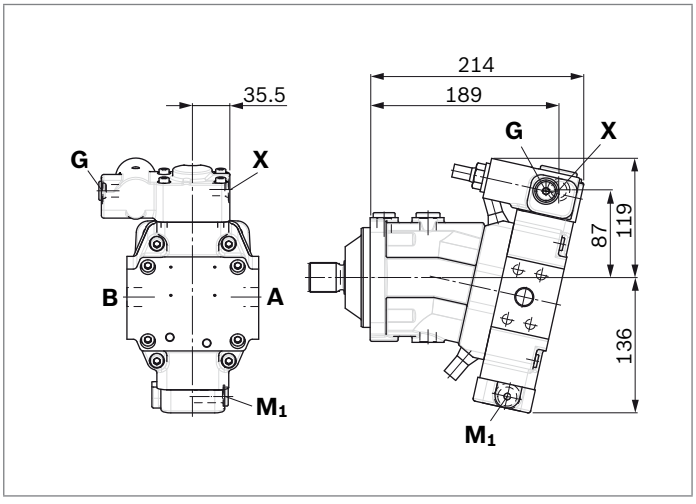
▼ **EP.E** – Proportional control, electric, with pressure control hydraulic override, two-point



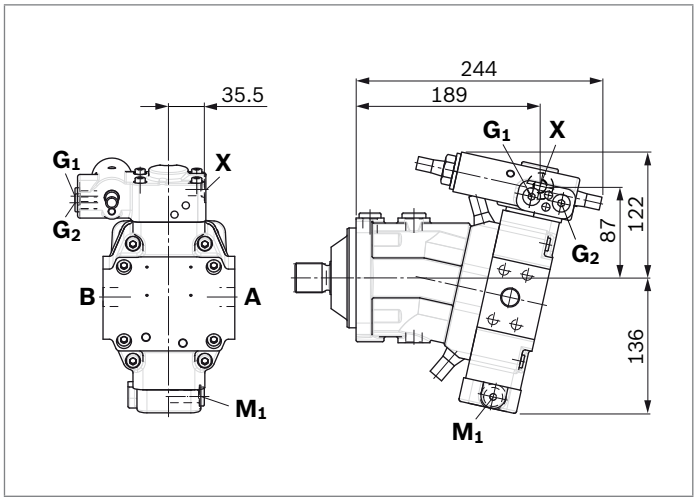
▼ **HD1, HD2** – Proportional control, hydraulic



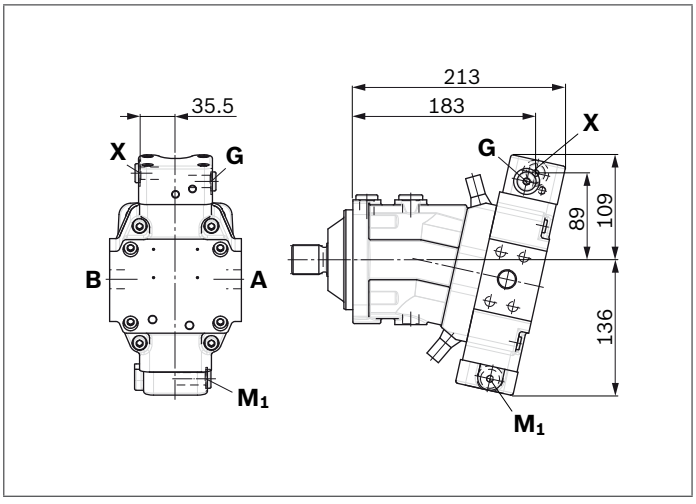
▼ **HD.D** – Proportional control, hydraulic, with pressure control fixed setting



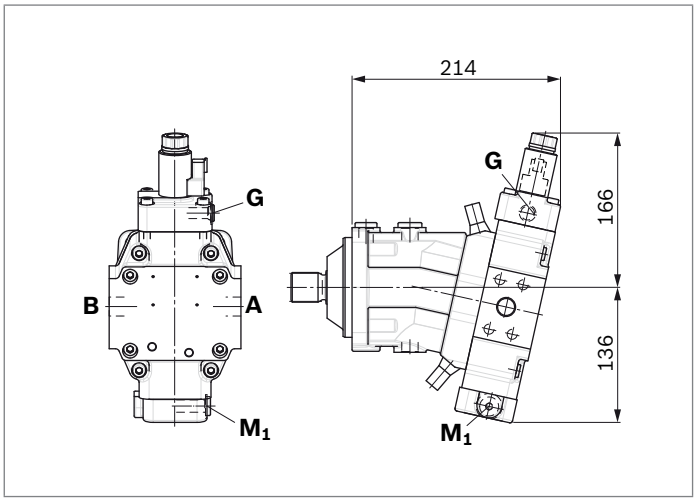
▼ **HD.E** – Proportional control, hydraulic, with pressure control hydraulic override, two-point



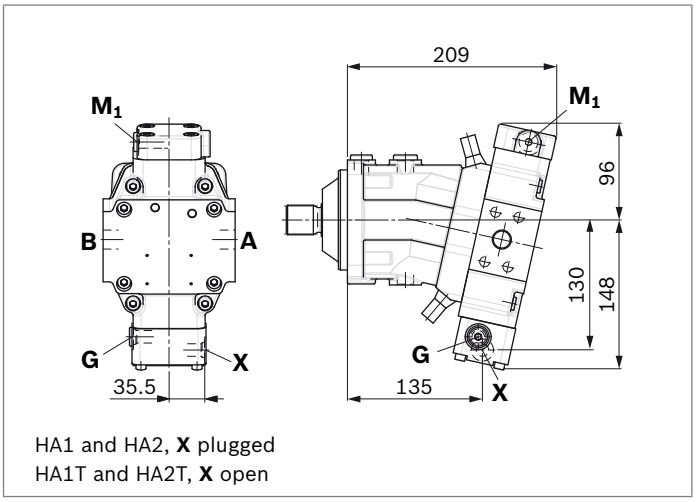
▼ **HZ1** – Two-point control, hydraulic



▼ **EZ1, EZ2** – Two-point control, electric

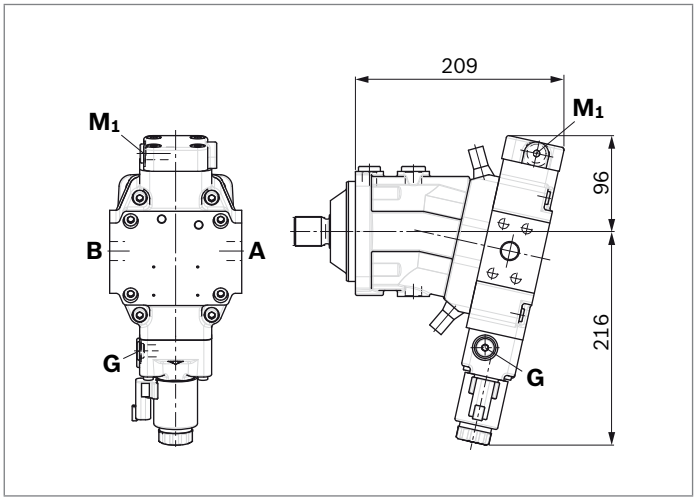


▼ **HA1, HA2 / HA1T, HA2T** – Automatic high-pressure related control, with override, hydraulic remote control, proportional

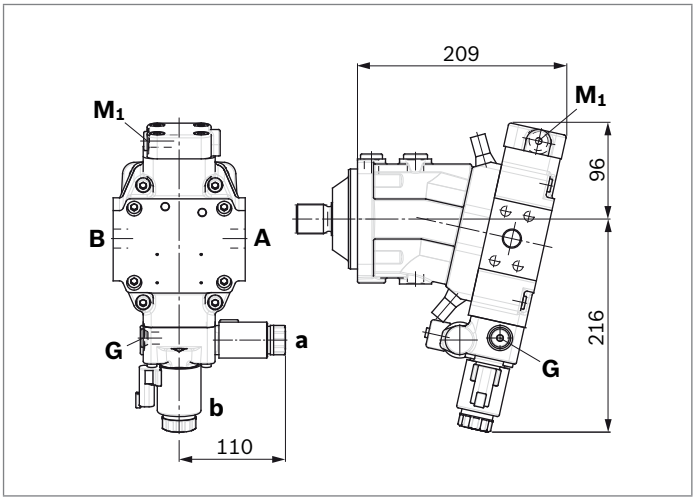


HA1 and HA2, **X** plugged
HA1T and HA2T, **X** open

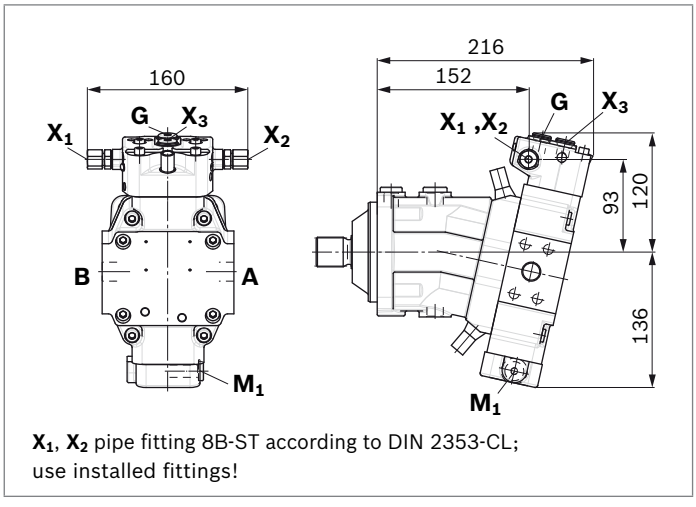
▼ **HA1U1, HA2U2** – Automatic high-pressure related control, with electric override, two-point



▼ **HA1R1, HA2R2** – Automatic high-pressure related control, with electric override and electric travel direction valve

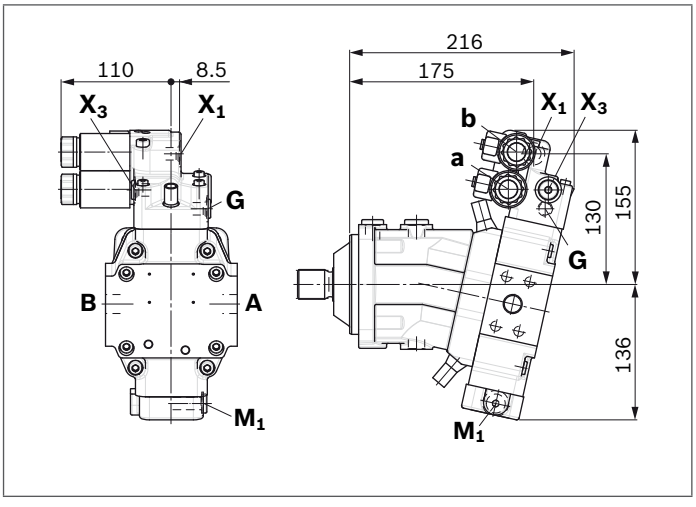


▼ **DA1, DA4** – Automatic speed related control, with hydraulic travel direction valve



X1, **X2** pipe fitting 8B-ST according to DIN 2353-CL; use installed fittings!

▼ **DA2, DA3, DA5, DA6** – Automatic speed related control, with electric travel direction valve and electric $V_{g\,max}$-circuit

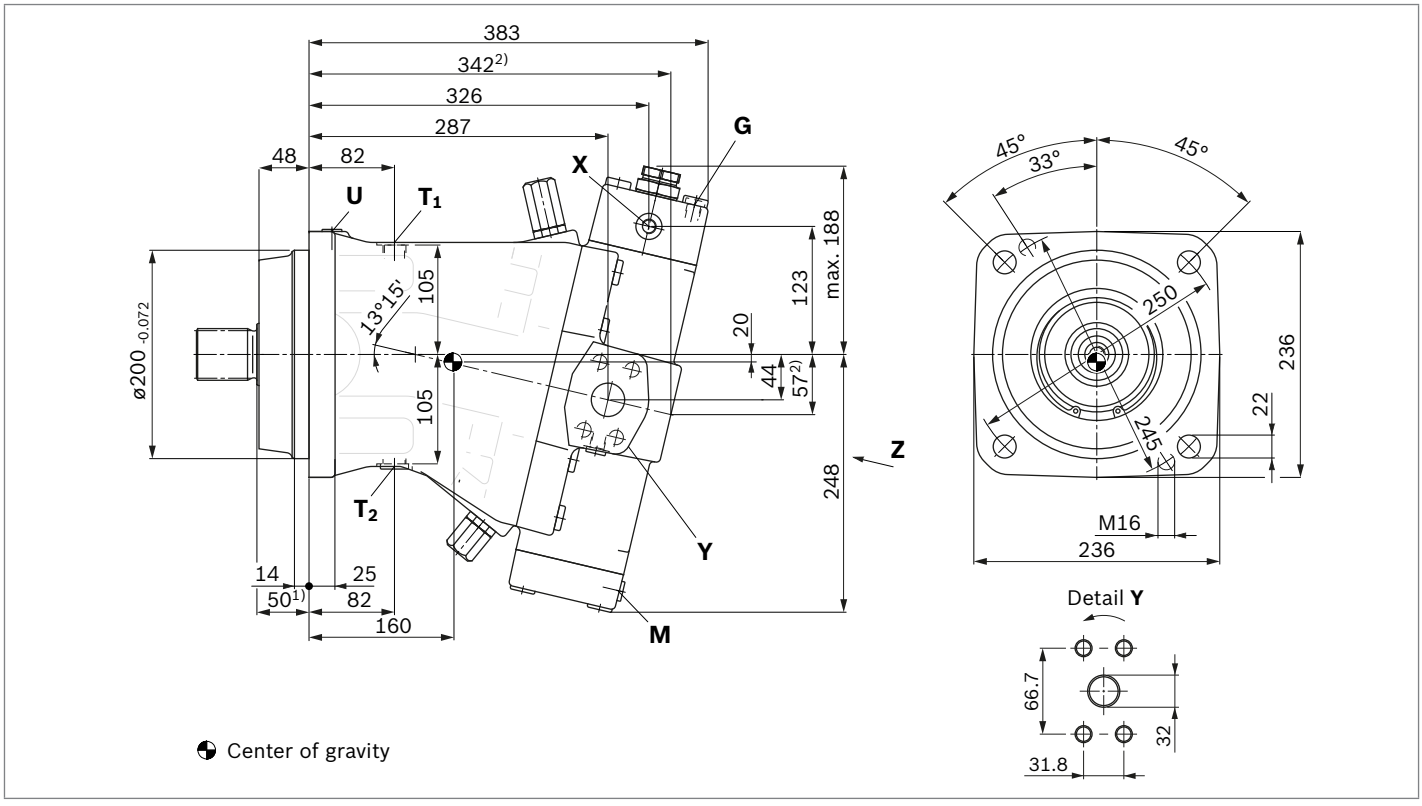


Dimensions, sizes 250

HD1, HD2 – Proportional control, hydraulic

HZ – Two-point control, hydraulic

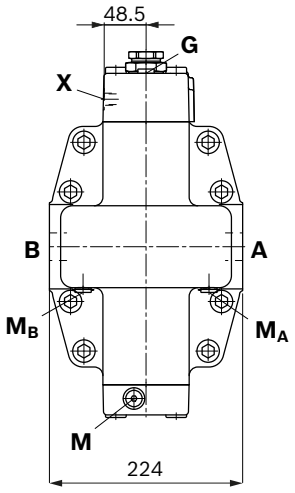
Port plate 2 — SAE working ports **A** and **B** lateral, opposing



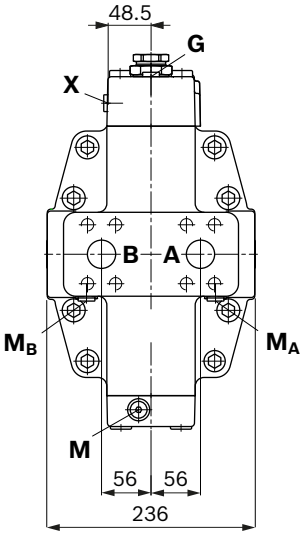
Ports		Standard	Size[3]	$p_{max\ abs}$ [bar][4]	State[8]
A, B	Working port Fastening thread A/B	SAE J518[5] DIN 13	1 1/4 in M14 × 2; 19 deep	400	O
A_1, B_1	Additional working port for plate 15 fastening thread A_1/B_1	SAE J518[5] DIN 13	1 1/4 in M14 × 2; 19 deep	400	O
T_1	Drain port	DIN 3852[7]	M22 × 1.5; 14 deep	3	X[6]
T_2	Drain port	DIN 3852[7]	M22 × 1.5; 14 deep	3	O[6]
G	Synchronous control	DIN 3852[7]	M14 × 1.5; 12 deep	400	X
G_2	2nd pressure setting (HD.D, EP.D)	DIN 3852[7]	M14 × 1.5; 12 deep	400	X
P	Pilot oil supply (EP)	DIN 3852[7]	M14 × 1.5; 12 deep	100	O
U	Bearing flushing	DIN 3852[7]	M14 × 1.5; 12 deep	3	X
X	Pilot signal (HD, HZ, HA1T/HA2T)	DIN 3852[7]	M14 × 1.5; 12 deep	100	O
X	Pilot signal (HA1, HA2)	DIN 3852[7]	M14 × 1.5; 12 deep	3	X
X_1, X_2	Pilot signal (DA)	DIN 2353-CL	8B-ST	40	O
X_3	Pilot signal (HD.G, EP.G)	DIN 3852[7]	M14 × 1.5; 12 deep	400	O
M	Stroking chamber measurement	DIN 3852[7]	M14 × 1.5; 12 deep	400	X
M_A, M_B	Pressure measurement A/B	DIN 3852[7]	M14 × 1.5; 12 deep	400	X
M_{St}	Pilot pressure measurement	DIN 3852[7]	M14 × 1.5; 12 deep	400	X

▼ **Location of the working ports on the port plates** (view **Z**)

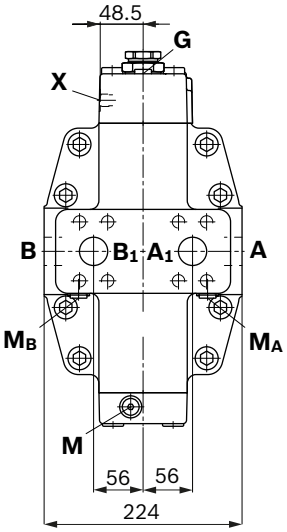
02 SAE working ports **A** and **B** lateral, opposite



01 SAE working ports **A** and **B** at rear

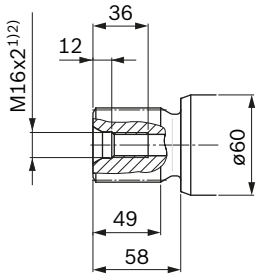


15 SAE working ports **A** and **B** lateral, opposite, A_1 and B_1 at rear



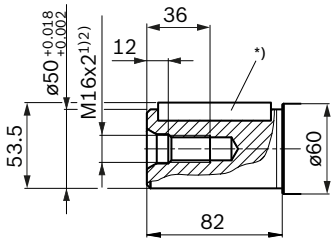
▼ **Splined shaft DIN 5480**

Z – W50×2×24×9g



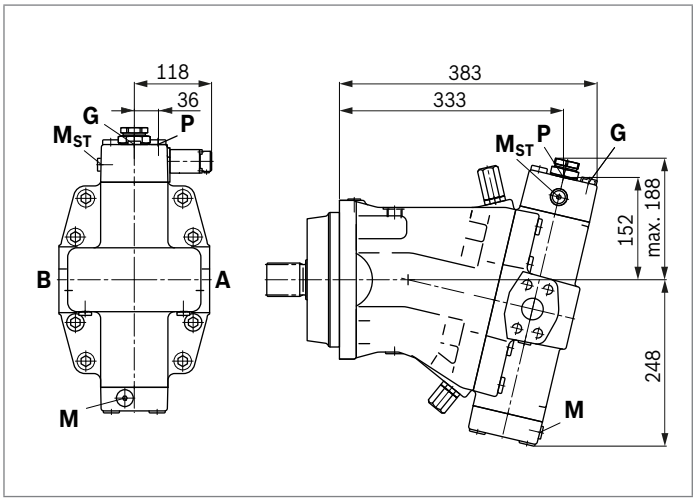
▼ **Cyl. Keyed shaft, DIN 6885**

P – AS14×9×80

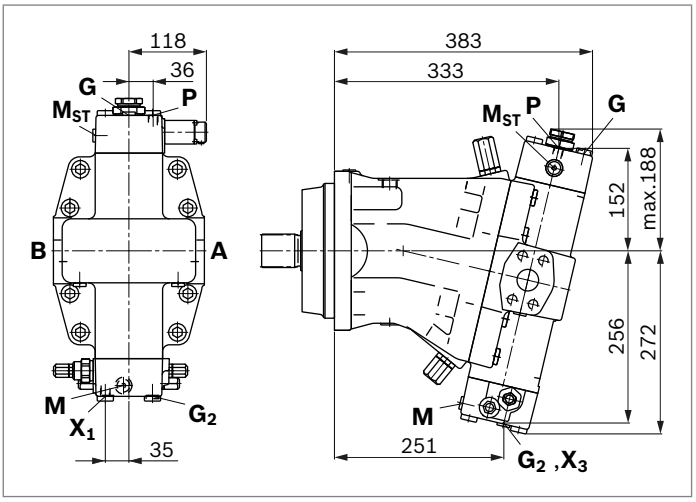


*) Key width 14

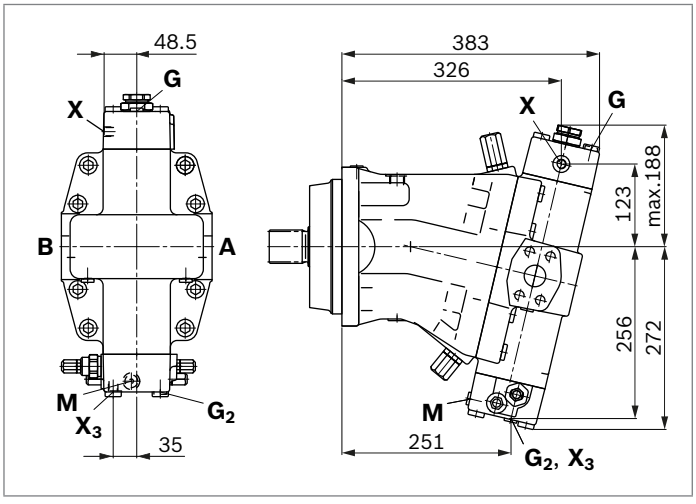
▼ **EP1, EP2** – Proportional control, electric



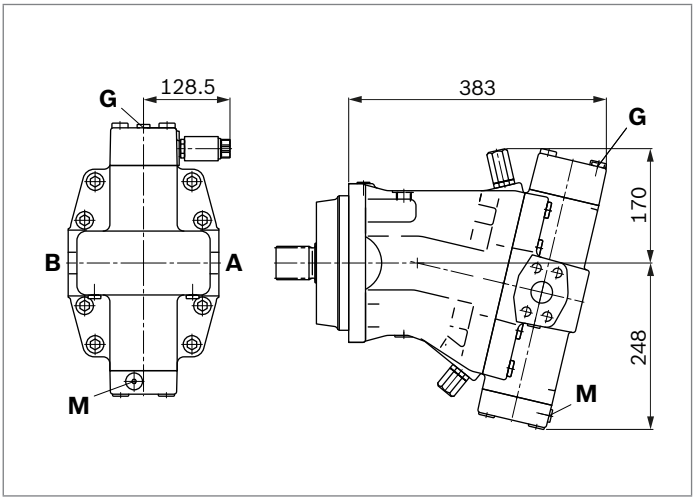
▼ **EP.D, EP.G** – Proportional control electric,
with pressure control fixed setting; remote controlled (EP.G)



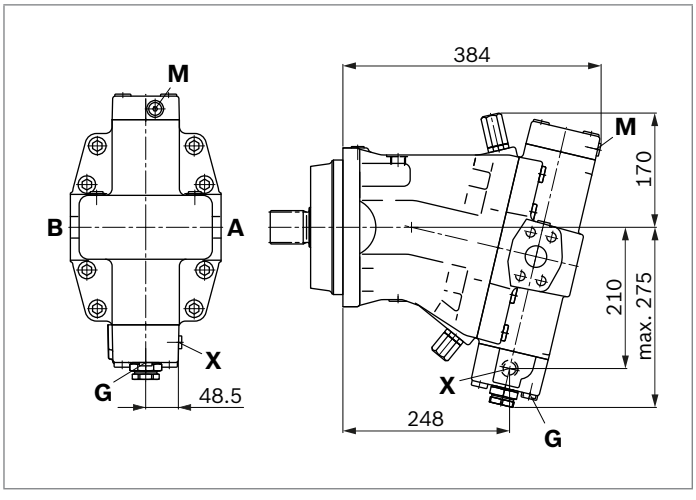
▼ **HD.D, HD.G** – Proportional control hydraulic
with pressure control fixed setting; remote controlled (HD.G)



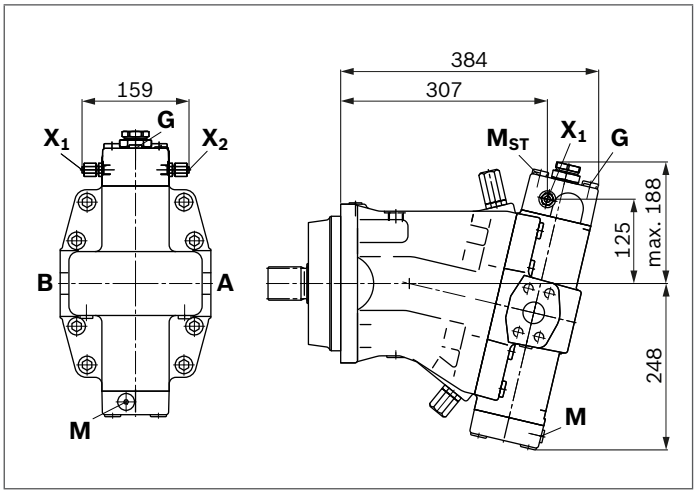
▼ **EZ1, EZ2** – Two-point control, electric



▼ **HA1, HA2 / HA1T, HA2T** – Automatic high-pressure related
control, with override hydraulic remote control, proportional



▼ **DA** – Automatic speed related control,
with hydraulic travel direction valve

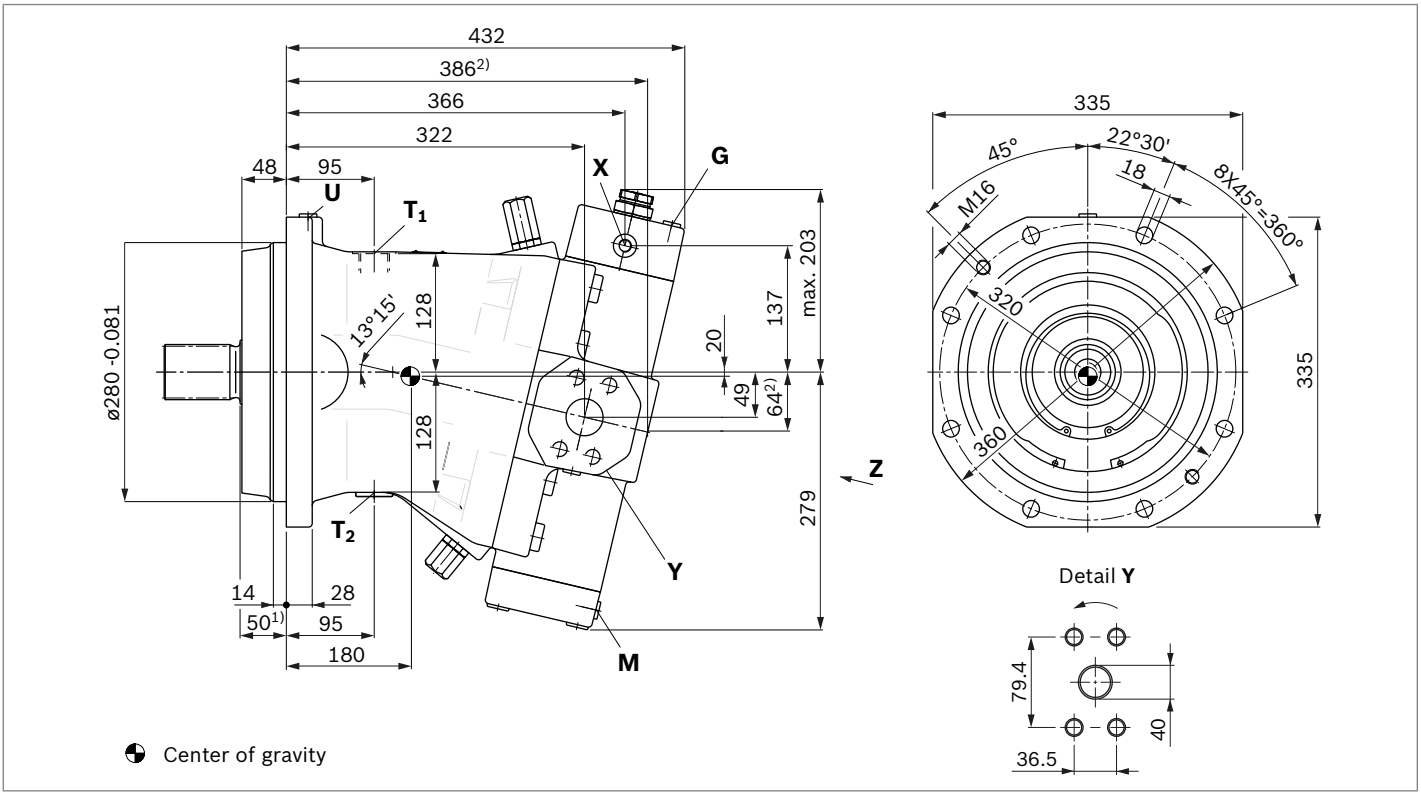


Dimensions, sizes 355

HD1, HD2 – Proportional control, hydraulic

HZ – Two-point control, hydraulic

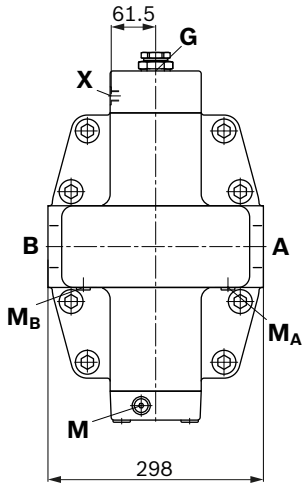
Port plate 2 — SAE working ports **A** and **B** lateral, opposite



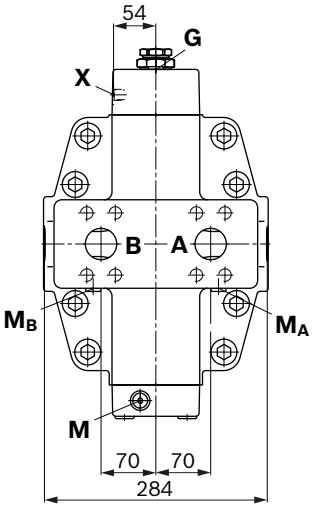
Ports		Standard	Size[3)]	$p_{max\ abs}$ [bar][4)]	State[8)]
A, B	Working port Fastening thread A/B	SAE J518[5)] DIN 13	1 1/2 in M16 × 2; 24 deep	400	O
A_1, B_1	Additional working port for plate 15 fastening thread A_1/B_1	SAE J518[5)] DIN 13	1 1/2 in M16 × 2; 24 deep	400	O
T_1	Drain port	DIN 3852[7)]	M33 × 2; 18 deep	3	X[6)]
T_2	Drain port	DIN 3852[7)]	M33 × 2; 18 deep	3	O[6)]
G	Synchronous control	DIN 3852[7)]	M14 × 1.5; 12 deep	400	X
G_2	2nd pressure setting (HD.D, EP.D)	DIN 3852[7)]	M14 × 1.5; 12 deep	400	X
P	Pilot oil supply (EP)	DIN 3852[7)]	M14 × 1.5; 12 deep	100	O
U	Bearing flushing	DIN 3852[7)]	M14 × 1.5; 12 deep	3	X
X	Pilot signal (HD, HZ, HA1T/HA2T)	DIN 3852[7)]	M14 × 1.5; 12 deep	100	O
X	Pilot signal (HA1, HA2)	DIN 3852[7)]	M14 × 1.5; 12 deep	3	X
X_1, X_2	Pilot signal (DA)	DIN 2353-CL	8B-ST	40	O
X_3	Pilot signal (HD.G, EP.G)	DIN 3852[7)]	M14 × 1.5; 12 deep	400	O
M	Stroking chamber measurement	DIN 3852[7)]	M14 × 1.5; 12 deep	400	X
M_A, M_B	Pressure measurement A/B	DIN 3852[7)]	M14 × 1.5; 12 deep	400	X
M_{ST}	Pilot pressure measurement	DIN 3852[7)]	M14 × 1.5; 12 deep	400	X

▼ **Location of the working ports on the port plates** (view **Z**)

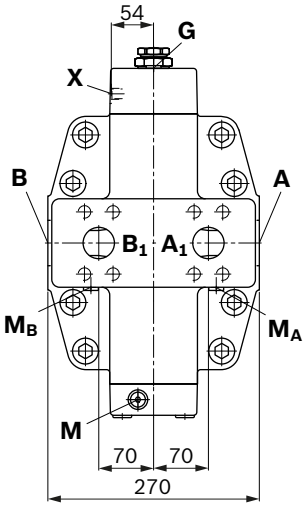
02 SAE working ports
A and **B** lateral, opposite



01 SAE working ports
A and **B** at rear

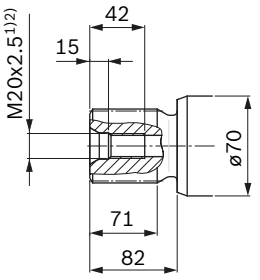


15 SAE working ports
A and **B** lateral, opposite,
A_1 and B_1 at rear



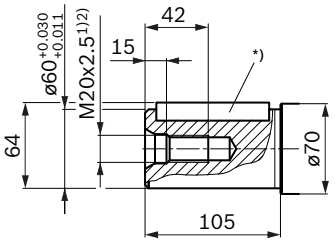
▼ **Splined shaft DIN 5480**

Z – W60×2×28×9g



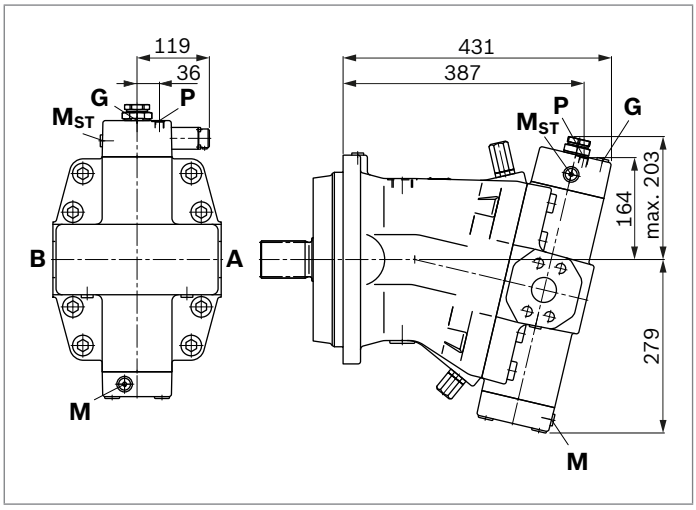
▼ **Cyl. Keyed shaft, DIN 6885**

P – AS18×11×100

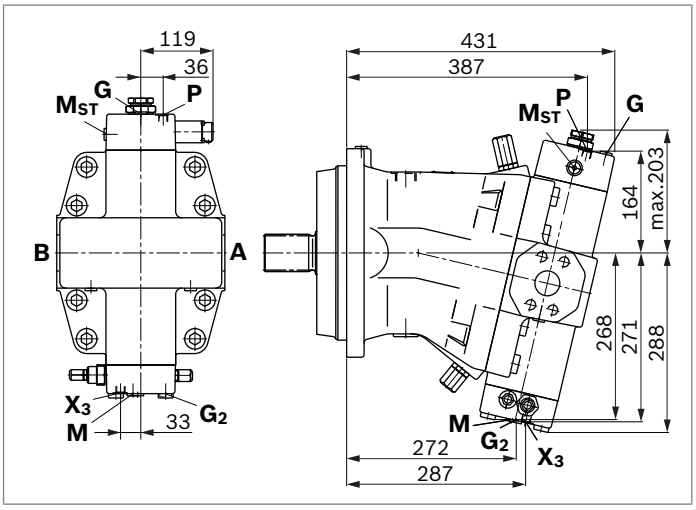


*) Key width 18

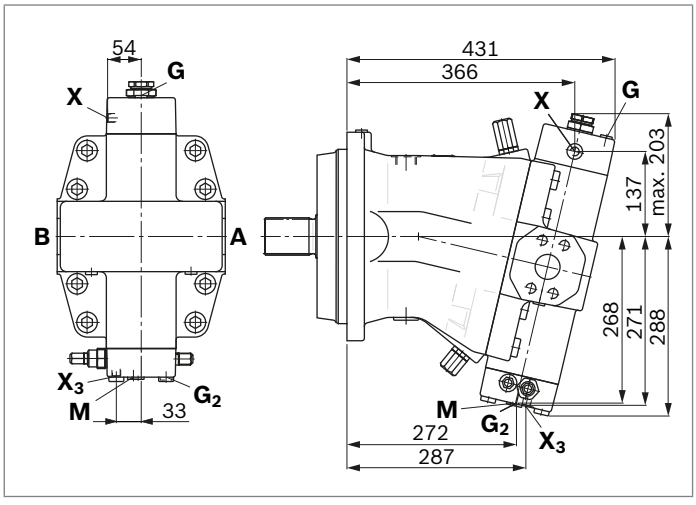
▼ **EP1, EP2** – Proportional control, electric



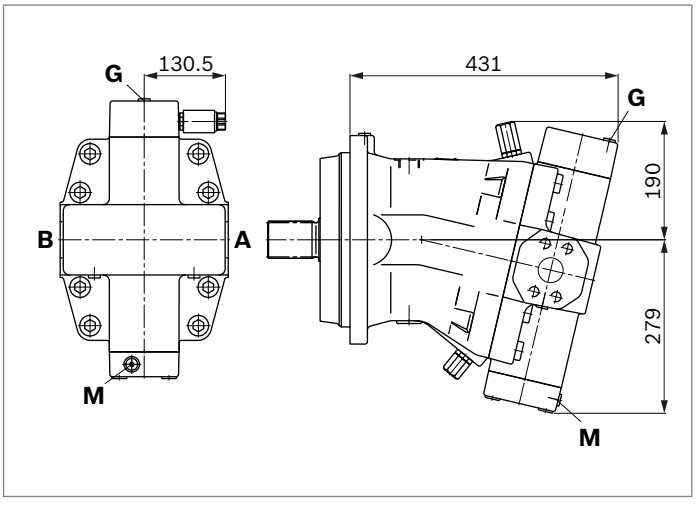
▼ **EP.D, EP.G** – Proportional control electric, with pressure control fixed setting; remote controlled (EP.G)



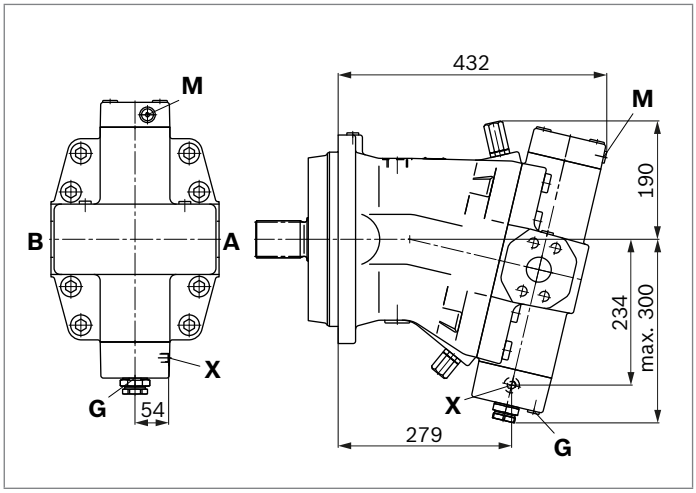
▼ **HD.D, HD.G** – Proportional control hydraulic with pressure control fixed setting; remote controlled (HD.G)



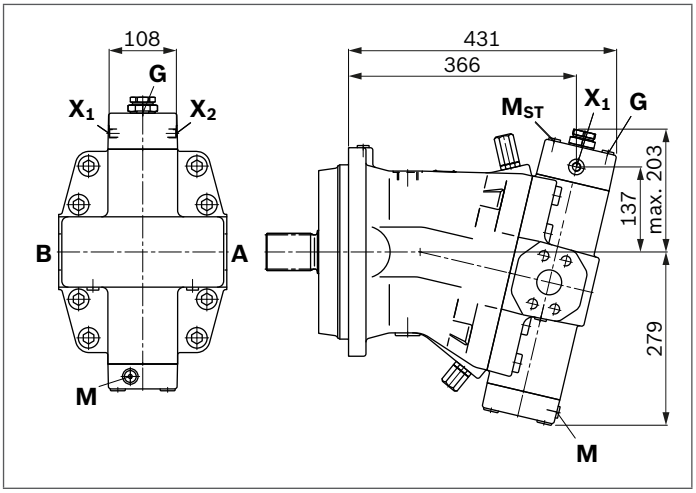
▼ **EZ1, EZ2** – Two-point control, electric



▼ **HA1, HA2 / HA1T, HA2T** – Automatic high-pressure related control, with override hydraulic remote control, proportional



▼ **DA** – Automatic speed related control, with hydraulic travel direction valve

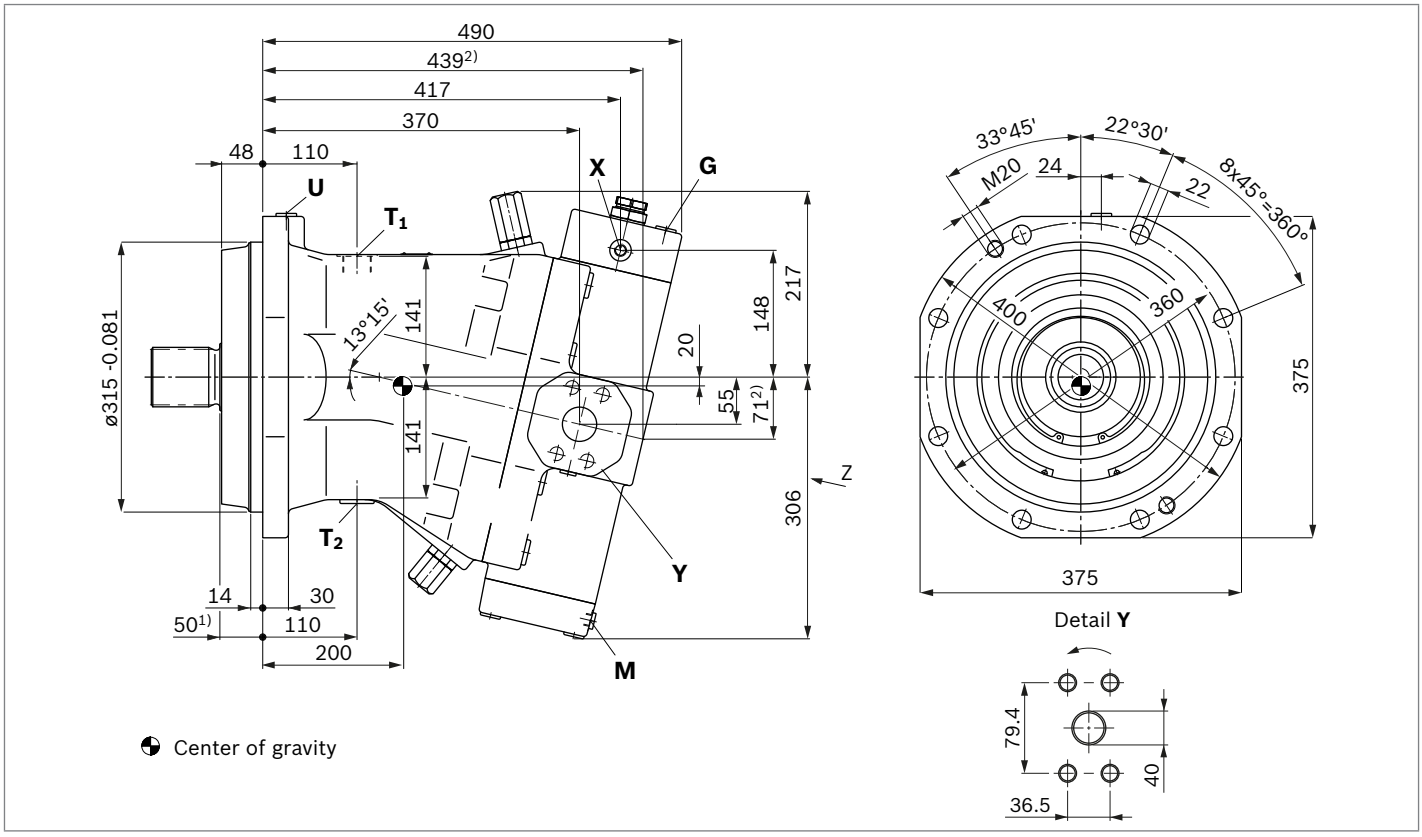


Dimensions, sizes 500

HD1, HD2 – Proportional control, hydraulic

HZ – Two-point control, hydraulic

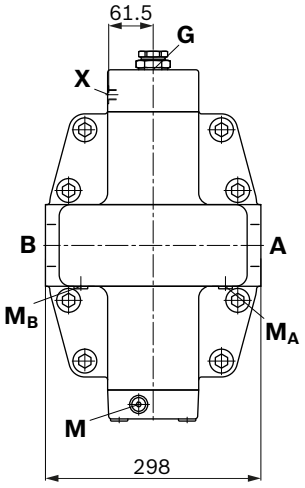
Port plate 2 — SAE working ports **A** and **B** lateral, opposite



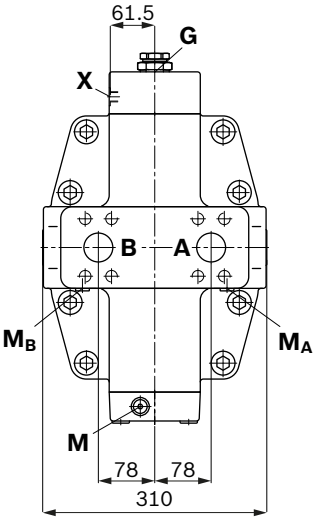
Ports		Standard	Size[3]	$p_{max\ abs}$ [bar][4]	State[8]
A, B	Working port Fastening thread A/B	SAE J518[5] DIN 13	1 1/2 in M16 × 2; 24 deep	400	O
A_1, B_1	Additional working port for plate 15 fastening thread A_1/B_1	SAE J518[5] DIN 13	1 1/2 in M16 × 2; 24 deep	400	O
T_1	Drain port	DIN 3852[7]	M33 × 2; 18 deep	3	X[6]
T_2	Drain port	DIN 3852[7]	M33 × 2; 18 deep	3	O[6]
G	Synchronous control	DIN 3852[7]	M18 × 1.5; 12 deep	400	X
G_2	2nd pressure setting (HD.D, EP.D)	DIN 3852[7]	M18 × 1.5; 12 deep	400	X
P	Pilot oil supply (EP)	DIN 3852[7]	M14 × 1.5; 12 deep	100	O
U	Bearing flushing	DIN 3852[7]	M18 × 1.5; 12 deep	3	X
X	Pilot signal (HD, HZ, HA1T/HA2T)	DIN 3852[7]	M14 × 1.5; 12 deep	100	O
X	Pilot signal (HA1, HA2)	DIN 3852[7]	M14 × 1.5; 12 deep	3	X
X_1, X_2	Pilot signal (DA)	DIN 2353-CL	8B-ST	40	O
X_3	Pilot signal (HD.G, EP.G)	DIN 3852[7]	M14 × 1.5; 12 deep	400	O
M	Stroking chamber measurement	DIN 3852[7]	M14 × 1.5; 12 deep	400	X
M_A, M_B	Pressure measurement A/B	DIN 3852[7]	M14 × 1.5; 12 deep	400	X
M_{St}	Pilot pressure measurement	DIN 3852[7]	M14 × 1.5; 12 deep	400	X

▼ **Location of the working ports on the port plates** (view **Z**)

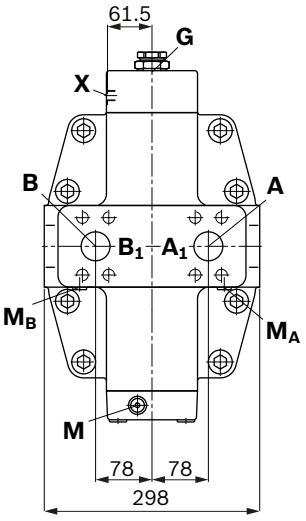
02 SAE working ports **A** and **B** lateral, opposite



01 SAE working ports **A** and **B** at rear

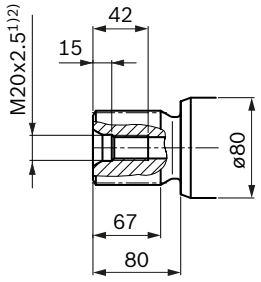


15 SAE working ports **A** and **B** lateral, opposite, A_1 and B_1 at rear



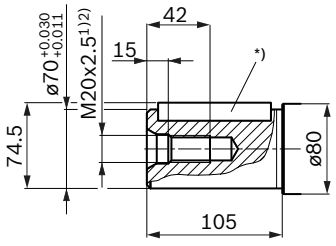
▼ **Splined shaft DIN 5480**

Z – W70×3×22×9g



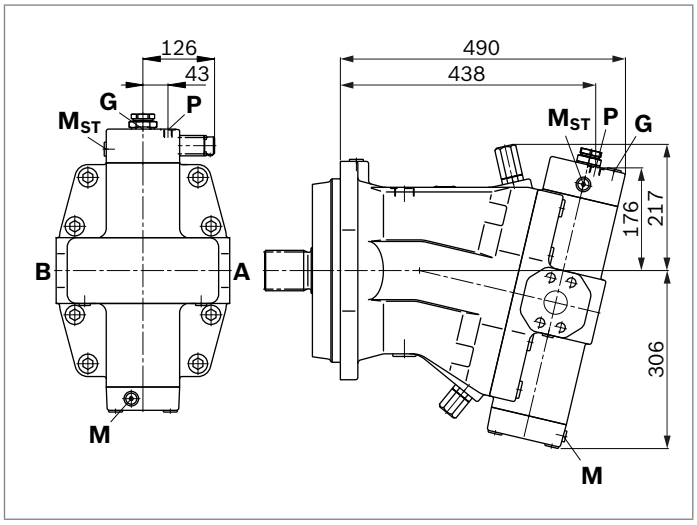
▼ **Cyl. Keyed shaft, DIN 6885**

P – AS20×12×100

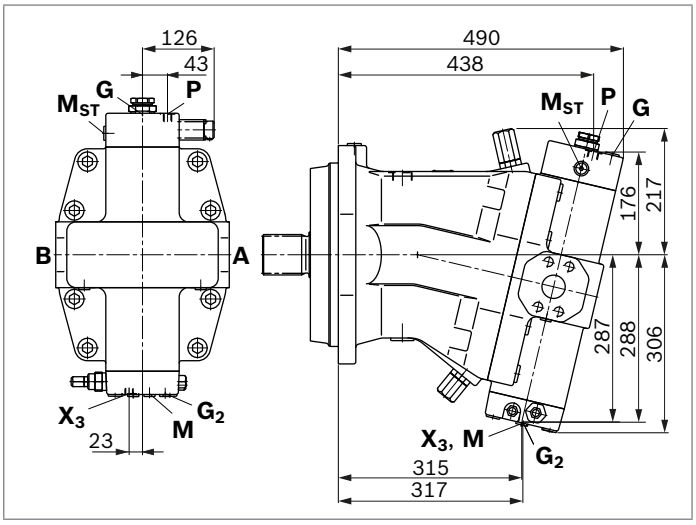


*) Key width 20

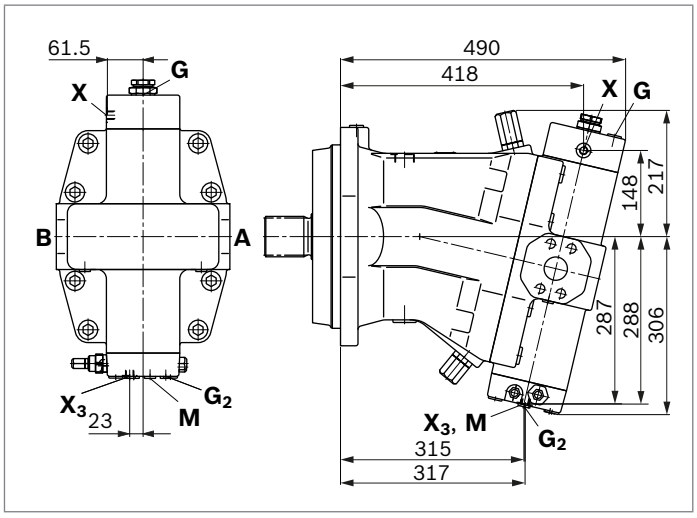
▼ **EP1, EP2** – Proportional control, electric



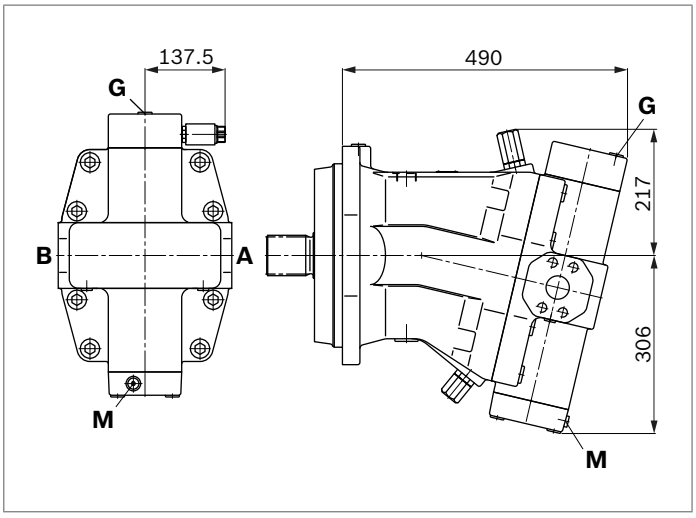
▼ **EP.D, EP.G** – Proportional control electric, with pressure control fixed setting; remote controlled (EP.G)



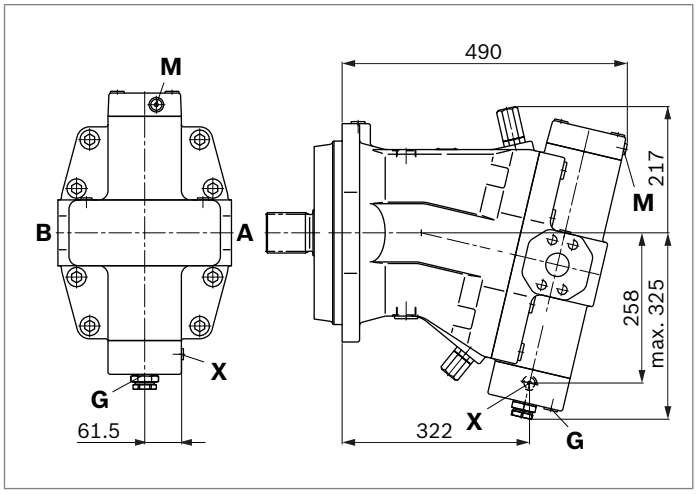
▼ **HD.D, HD.G** – Proportional control hydraulic with pressure control fixed setting; remote controlled (HD.G)



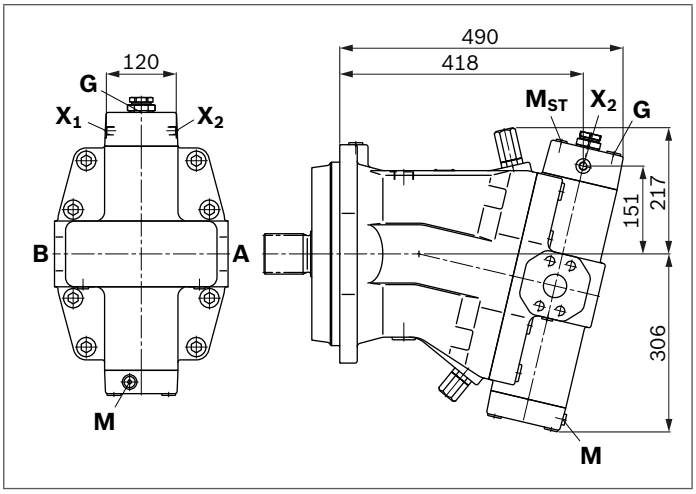
▼ **EZ1, EZ2** – Two-point control, electric



▼ **HA1, HA2 / HA1T, HA2T** – Automatic high-pressure related control, with override, hydraulic remote control, proportional



▼ **DA** – Automatic speed related control, with hydraulic travel direction valve

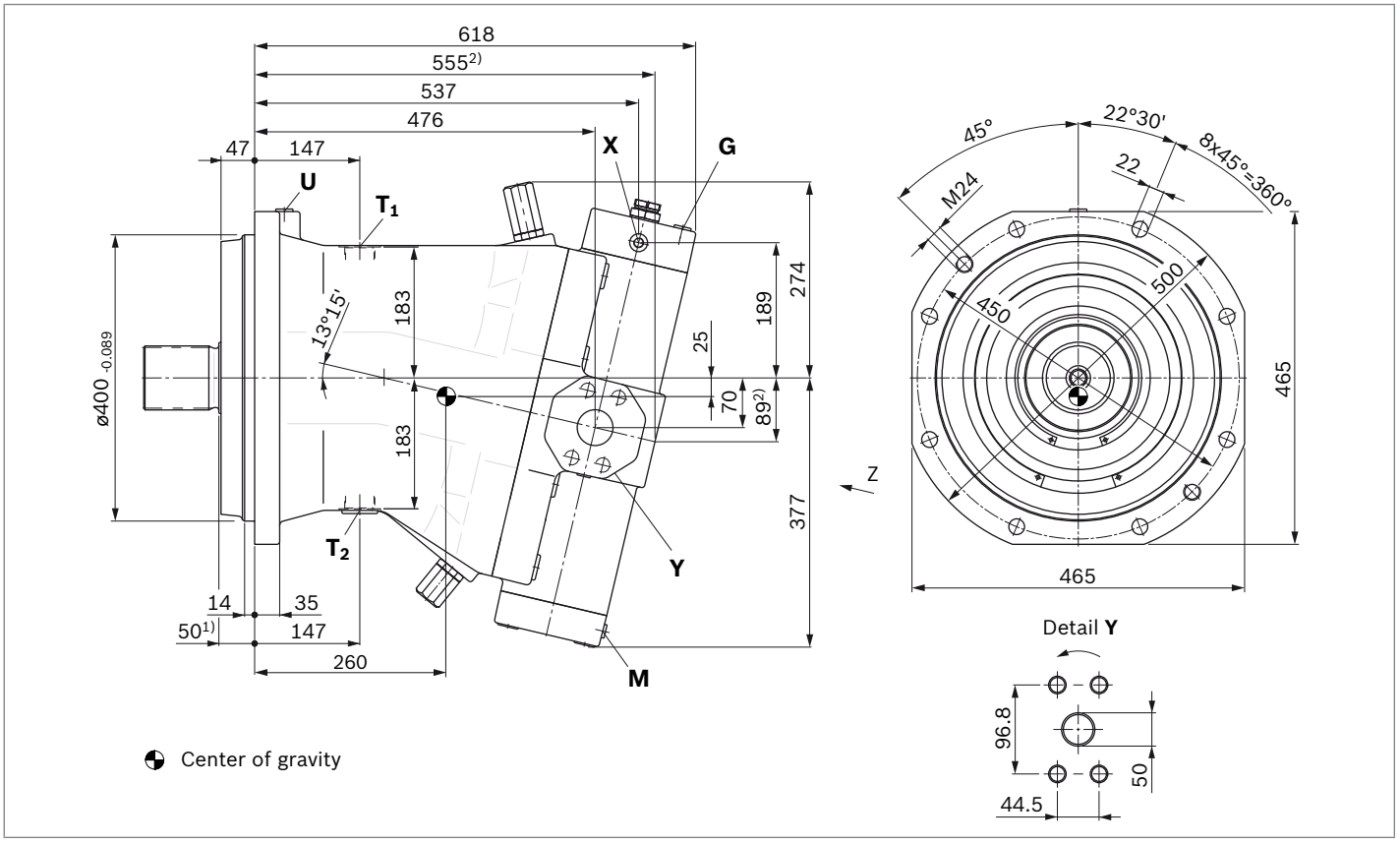


Dimensions, sizes 1000

HD1, HD2 – Proportional control, hydraulic

HZ – Two-point control, hydraulic

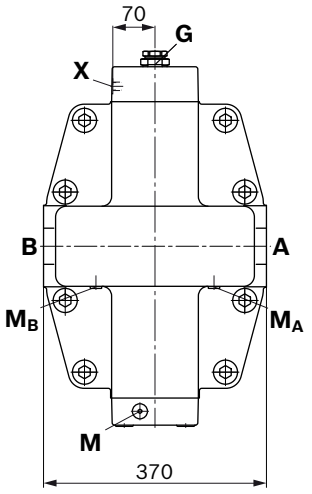
Port plate 2 — SAE working ports **A** and **B** lateral, opposite



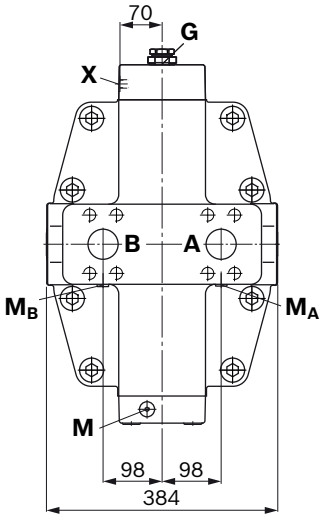
Ports		Standard	Size[3]	$p_{max\ abs}$ [bar][4]	State[8]
A, B	Working port Fastening thread A/B	SAE J518[5] DIN 13	2 in M20 × 2.5; 24 deep	400	O
A_1, B_1	Additional working port for plate 15 fastening thread A_1/B_1	SAE J518[5] DIN 13	2 in M20 × 2.5; 24 deep	400	O
T_1	Drain port	DIN 3852[7]	M42 × 2; 20 deep	3	X[6]
T_2	Drain port	DIN 3852[7]	M42 × 2; 20 deep	3	O[6]
G	Synchronous control	DIN 3852[7]	M18 × 1.5; 12 deep	400	X
G_2	2nd pressure setting (HD.E, EP.E)	DIN 3852[7]	M18 × 1.5; 12 deep	400	X
P	Pilot oil supply (EP)	DIN 3852[7]	M14 × 1.5; 12 deep	100	O
U	Bearing flushing	DIN 3852[7]	M18 × 1.5; 12 deep	3	X
X	Pilot signal (HD, HZ, HA1T/HA2T)	DIN 3852[7]	M14 × 1.5; 12 deep	100	O
X	Pilot signal (HA1, HA2)	DIN 3852[7]	M14 × 1.5; 12 deep	3	X
X_3	Pilot signal (HD.G, EP.G)	DIN 3852[7]	M14 × 1.5; 12 deep	400	O
M	Stroking chamber measurement	DIN 3852[7]	M14 × 1.5; 12 deep	400	X
M_A, M_B	Pressure measurement A/B	DIN 3852[7]	M14 × 1.5; 12 deep	400	X
M_{St}	Pilot pressure measurement	DIN 3852[7]	M14 × 1.5; 12 deep	400	X

▼ **Location of the working ports on the port plates** (view **Z**)

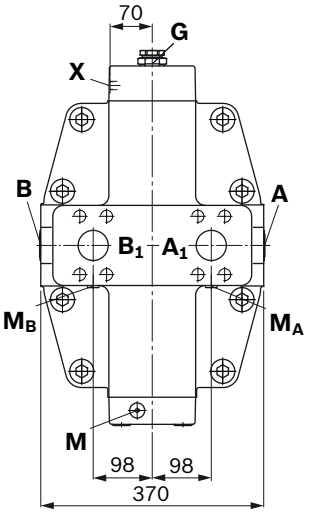
02 SAE working ports **A** and **B** lateral, opposite



01 SAE working ports **A** and **B** at rear

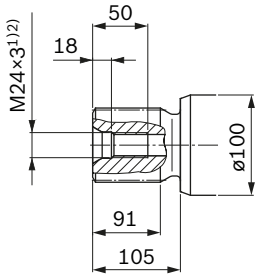


15 SAE working ports **A** and **B** lateral, opposite, A_1 and B_1 at rear



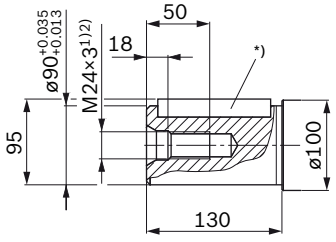
▼ **Splined shaft DIN 5480**

Z – W90×3×28×9g



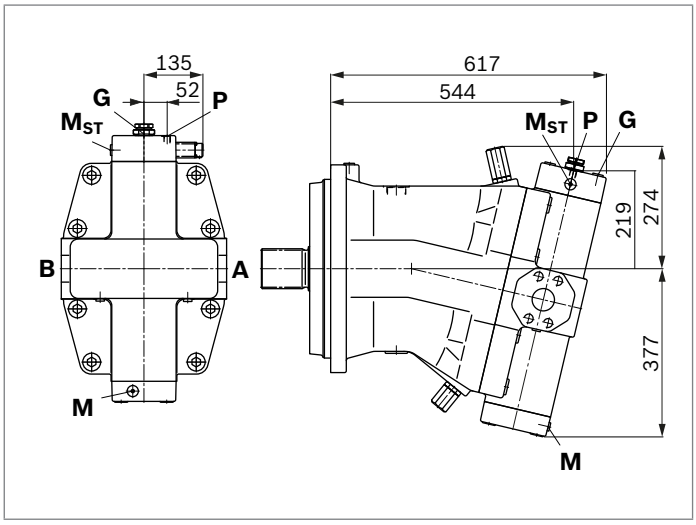
▼ **Cyl. Keyed shaft, DIN 6885**

P – AS25×14×125

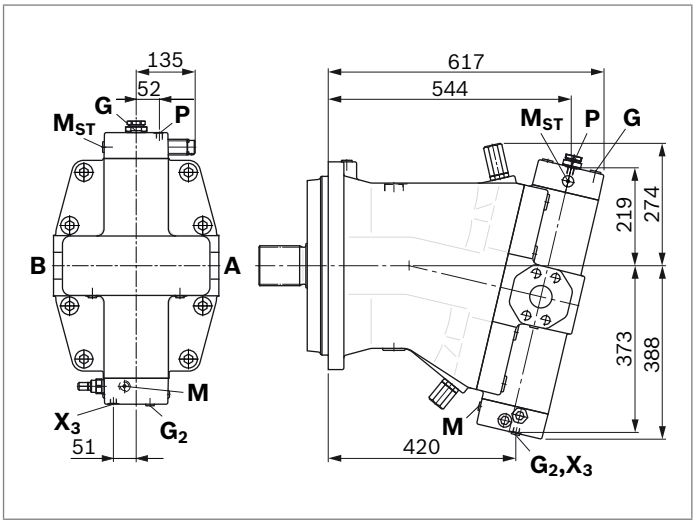


*) Key width 25

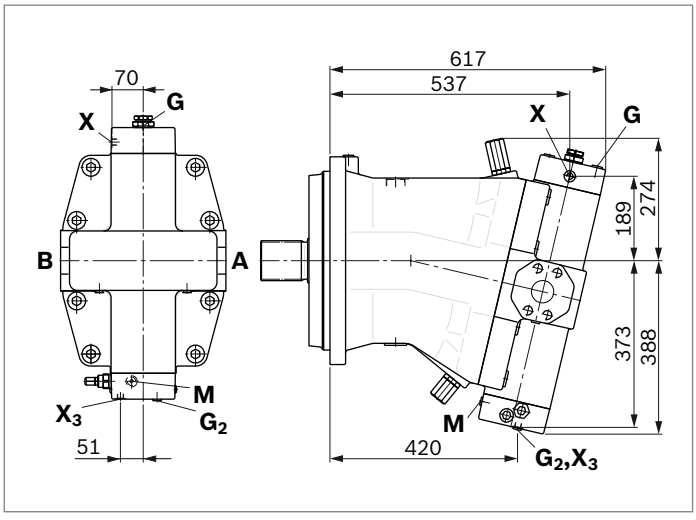
▼ **EP1, EP2** – Proportional control, electric



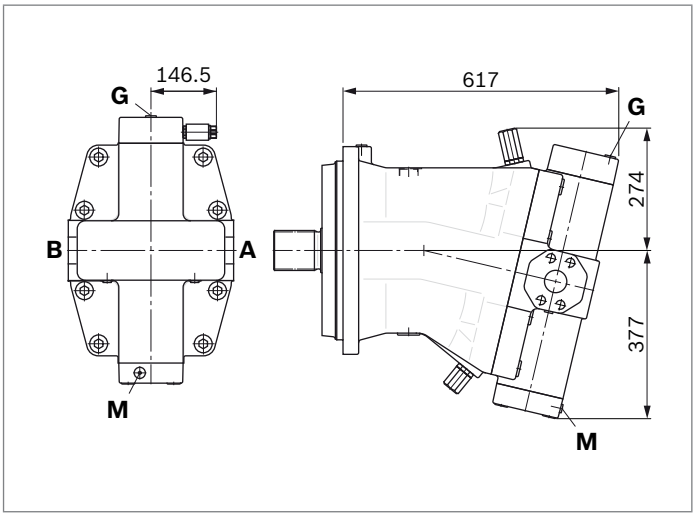
▼ **EP.D, EP.G** – Proportional control electric,
with pressure control fixed setting; remote controlled (EP.G)



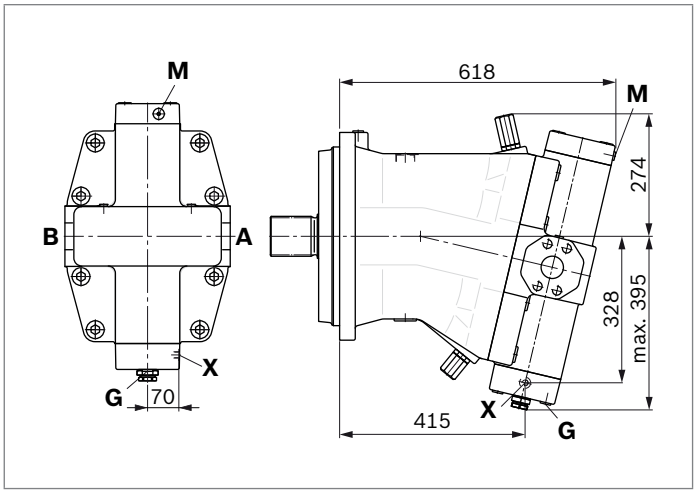
▼ **HD.D, HD.G** – Proportional control hydraulic
with pressure control fixed setting; remote controlled (HD.G)



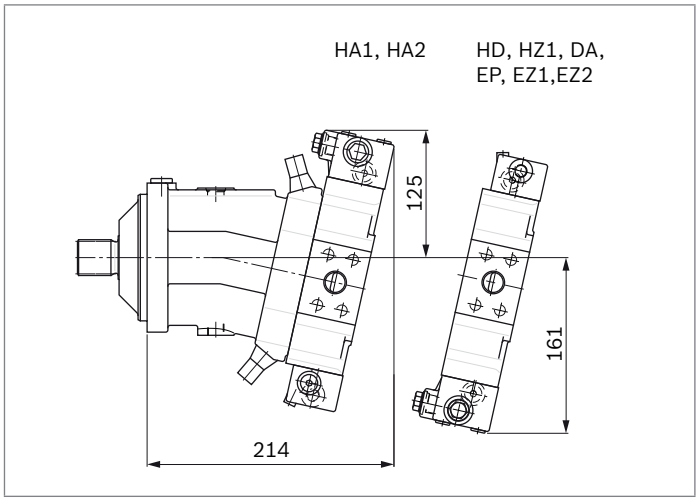
▼ **EZ1, EZ2** – Two-point control, electric



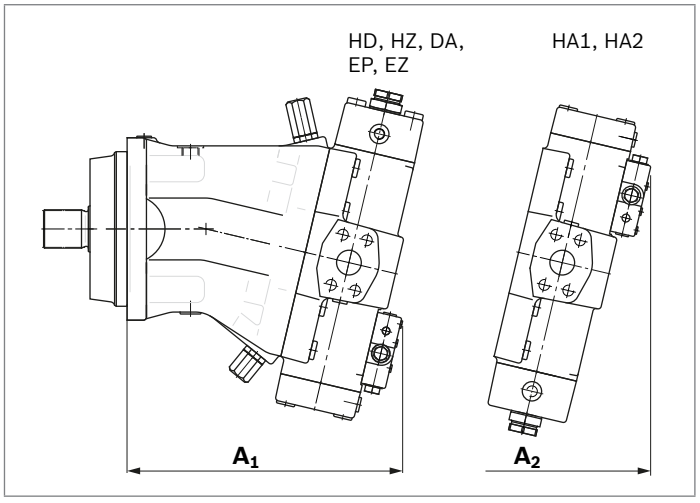
▼ **HA1, HA2 / HA1T, HA2T** – Automatic high-pressure related
control, with override hydraulic remote control, proportional



▼ **Dimensions, size 28**



▼ **Dimensions, sizes 250 to 1000**



NG	A1	A2
250	357	402
355	397	446
500	440	504
1000	552	629