

EIGENSCHAFTEN

Motorausführung	Schluck-volumen		Max. zulässige Dauerdrehzahl (1)	Max. zulässige Spitzendrehzahl (1)	Max. Schluckstrom		Max. Drehmoment in Abhängigkeit des Drucks		Drehmoment bei 5100 psi (350 bar)		Theoretisch maximale Leistung bei 5800 psi 400 bar		Max. zulässiger Dauerdruck/Spitzendruck		Gewicht (kg)	
	cu.in/rev	cc/tr	U/min.	U/min.	gpm	l/mn	lbf.ft/psi	Nm/bar	lbf ft	Nm	HP	kW	psi	bar	lbs	Kg
MA 10	0,62	10,2	8000	8800	21,6	82	0,0082	0,16	42	57	72,9	54,4	5800 / 6525	400 / 450	14,3	6,5
MA 12	0,73	12,0	8000	8800	25,4	96	0,0097	0,19	49	67	85,7	64	5800 / 6525	400 / 450	14,3	6,5
MA 16	0,99	16,2	8000	8800	34,2	130	0,0131	0,26	67	90	115,9	86,4	5800 / 6525	400 / 450	14,3	6,5
MA 18	1,10	18,0	8000	8800	38,0	144	0,0145	0,29	74	100	128,7	96	5800 / 6525	400 / 450	14,3	6,5
MA 25	1,52	24,9	6300	6900	41,4	157	0,0201	0,40	102	139	140,1	104,5	5800 / 6525	400 / 450	25	11,5
MA 32	1,96	32,1	6300	6900	53,4	202	0,0259	0,51	132	179	180,7	134,8	5800 / 6525	400 / 450	25	11,5
MA 41	2,51	41,1	5600	6200	60,8	230	0,0331	0,65	169	229	205,6	153,4	5800 / 6525	400 / 450	25	11,5
MA 45	2,77	45,4	5000	5500	60,0	227	0,0366	0,72	187	253	202,8	151,3	5800 / 6525	400 / 450	40	18
MA 50	3,07	50,3	5000	5500	66,4	252	0,0405	0,80	207	280	224,7	167,6	5800 / 6525	400 / 450	40	18
MA 63	3,84	63,0	5000	5500	83,2	315	0,0508	1,00	259	351	281,5	210	5800 / 6525	400 / 450	40	18
MA 80	4,91	80,4	4500	5000	95,6	362	0,0648	1,28	330	448	323,3	241,2	5800 / 6525	400 / 450	51	23
MA 90	5,49	90,0	4500	5000	107,0	405	0,0725	1,43	370	501	361,9	270	5800 / 6525	400 / 450	51	23
MA 108	6,61	108,3	4000	4400	114,4	433	0,0877	1,72	445	603	387,3	288,8	5800 / 6525	400 / 450	51	23
MA 108R (2)	6,61	108,3	3400	4500	97,3	368	0,0877	1,72	445	603	329,2	245,5	5800 / 6525	400 / 450	77	35
MA 125	7,65	125,4	3400	4500	112,6	426	0,1010	2,00	515	699	381	284,2	5800 / 6525	400 / 450	77	35
MA 160	9,76	160,0	3600	4000	152,2	576	0,1289	2,55	657	891	514,7	384	5800 / 6525	400 / 450	107	48,5
MA 180	11,02	180,6	3600	4000	171,8	650	0,1455	2,87	742	1006	581	433,4	5800 / 6525	400 / 450	107	48,5
MA 250	15,27	250,2	2700	3000	178,5	676	0,2025	3,98	1028	1394	603,9	450,4	5800 / 6525	400 / 450	149,5	67,8

(1) Für höhere Drehzahlen nehmen Sie bitte Kontakt mit uns auf.

(2) Der MA108 R Motor entspricht den Abmessungen des MA125 Motors.

► Max. zulässige Kräfte

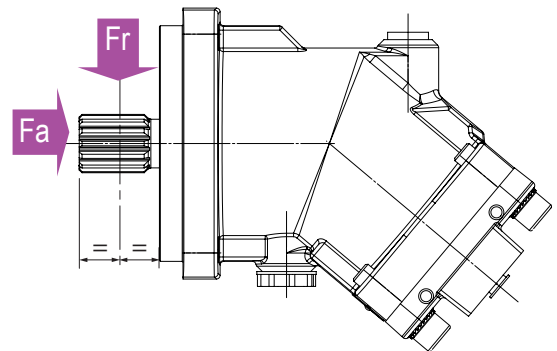
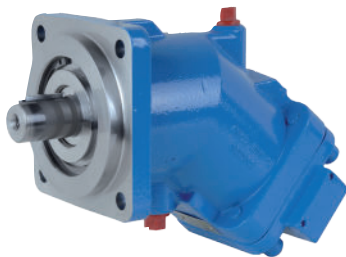
Motorausführung		10	12	16	18	25	32	41	45	50	63	80	90	108	108 R	125	160	180	250
Fr	lbf	528	629	742	899	1349	1461	1574	1461	1686	2023	2360	2473	2585	2810	3260	4047	4496	4946
	N	2350	2800	3300	4000	6000	6500	7000	6500	7500	9000	10500	11000	11500	12500	14500	18000	20000	22000
Fa	lbf/psi	0.19	0.23	0.31	0.31	0.42	0.47	0.62	0.62	0.62	0.78	0.93	1.04	1.24	1.24	1.33	1.32	1.47	2.33
	N/psi (N/bar)*	0.83 (12)	1.03 (15)	1.38 (20)	1.38 (20)	1.86 (27)	2.07 (30)	2.76 (40)	2.76 (40)	2.76 (40)	3.45 (50)	4.14 (60)	4.62 (67)	5.52 (80)	5.52 (80)	5.93 (86)	5.86 (85)	6.55 (95)	10.35 (150)

Fr: Radialkraft gemessen in der Mitte der Motorwelle

Fa: Axialkraft (wirkt axial auf die Motorwelle)

* Differenzdruck zwischen A und B.

Für weitere Kräfte nehmen Sie bitte mit uns Kontakt auf.

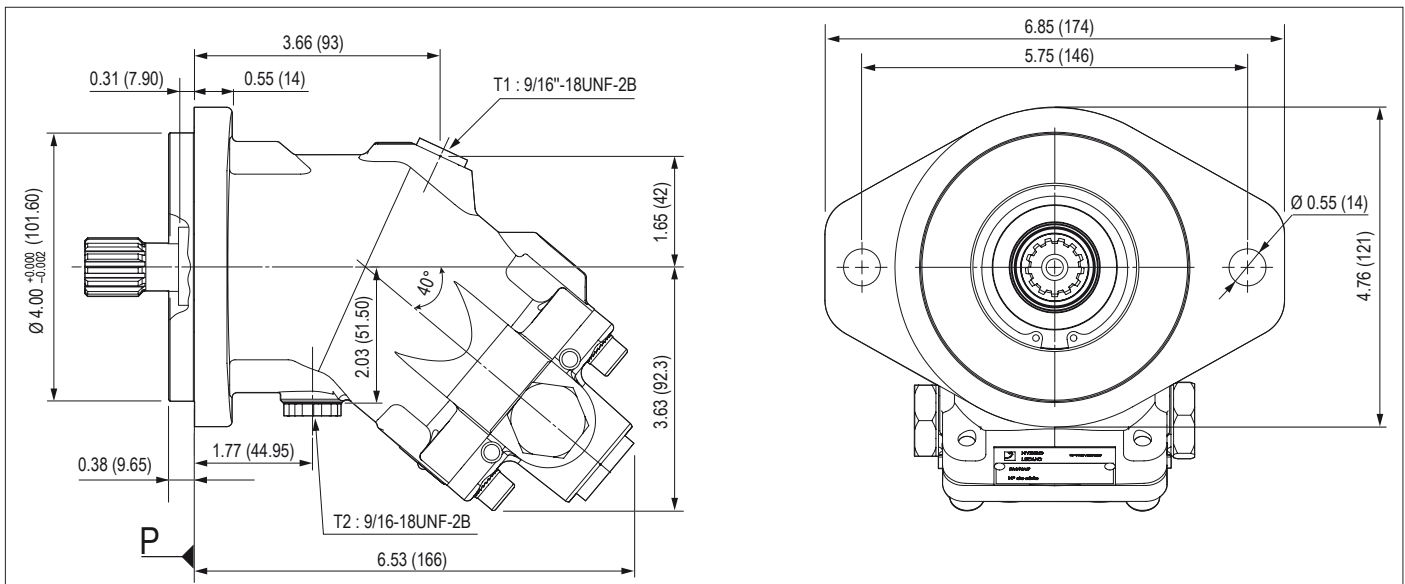


MA	...	...	...	...	U2	...	...	...	...	SP	Um die Bestellbezeichnung Ihres Motors zu ermitteln wählen Sie aus den Optionen 02, 03, 04, 05, 07, 08, 09 und 10 in der Auswahltablelle.																	
01	02	03	04	05	06	07	08	09	10	11																		
Motor																												
01	Motor																		MA									
Schluckvolumen																												
02					10	12	16	18	25	32	41	45	50	63	80	90	108	108R	125	160	180	250						
Flansch																												
03					SAE B 2 Loch				SAE C 4 Loch								SAE D 4 Loch				-	C						
					-				-								-				SAE E 4 Loch	C1						
					-				-								-				SAE D 4 Loch	C2						
Welle																												
04	Zahnwelle SAE J498b	13 T 16/32 DP	13 T 16/32 DP	13 T 16/32 DP	13 T 16/32 DP	14 T 12/24 DP	14 T 12/24 DP	14 T 12/24 DP	14 T 12/24 DP	14 T 12/24 DP	14 T 12/24 DP	14 T 12/24 DP	14 T 12/24 DP	14 T 12/24 DP	14 T 12/24 DP	13 T 8/16 DP	13 T 8/16 DP	13 T 8/16 DP	13 T 8/16 DP	15 T 8/16 DP	S1							
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13 T 8/16 DP	S2							
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S3							
	DIN 6885	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Ø50 mm	Ø50 mm	-	D1						
	SAE J744 zylindrische Welle	Ø1"	Ø1"	Ø1"	Ø1"	Ø1 1/4"	Ø1 1/4"	Ø1 1/4"	Ø1 1/4"	Ø1 1/4"	Ø1 1/4"	Ø1 1/2"	Ø1 1/2"	-	Ø1 3/4"	Ø1 3/4"	-	-	-	Ø2"	K1							
-	-	-	-	-	-	-	-	-	-	-	-	-	-	Ø1 1/4"	-	-	-	-	-	K2								
Anschlüsse A und B																												
05	SAE Flanschanschluss	Unten	0	-	-	-	-	-	•	•	•	•	•	•	•	-	•	•	•	•	L0							
		Hinten	0	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	M0							
		Seitlich	0	-	-	-	-	•	•	•	•	•	•	•	•	-	•	•	•	•	N0							
	Gewindean- schluss	Seitlich	1	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	N1							
		Seitlich	0	-	•	•	•	•	•	•	•	•	•	•	-	•	•	-	-	-	Q0							
		Hinten	1	-	-	-	-	•	•	•	•	•	•	•	-	•	•	-	-	-	Q1							
0	•	•	•	•	•	•	•	•	•	•	•	•	-	•	•	-	-	-	P0									
0 = nicht möglich für Einsatz mit Ventilen 1 = Für Einsatz von Spülventilen																												
Leckölanschlüsse T1 und T2																												
06					2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	U2							
Vorbereitet für Betrieb mit Drehzahlsensor																												
07	Ja	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	1								
	Nein	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0								
Drehzahlsensor																												
08	1 Frequenz-Signal	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	1								
	1 Signal mit Steckverbinder	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	1P								
	2 Signale mit Steckverbinder	○	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	2P								
	Nein	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	0								
Spülventile																												
09	Ohne	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	SV								
	Durchfluss	4,25 l/min*	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	-	VB04								
		10 l/min*	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	VB10								
		14 l/min*	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	VB14								
Tieftemperaturausführung																												
10	Ja (NBR)	-	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	N								
	Nein (FKM)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	F								

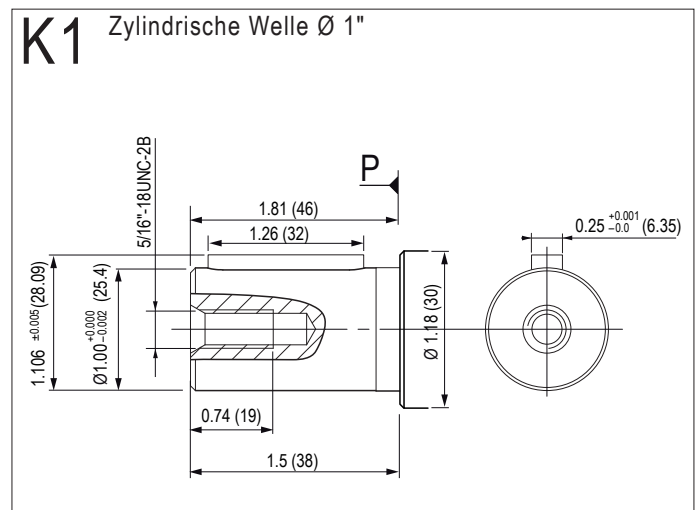
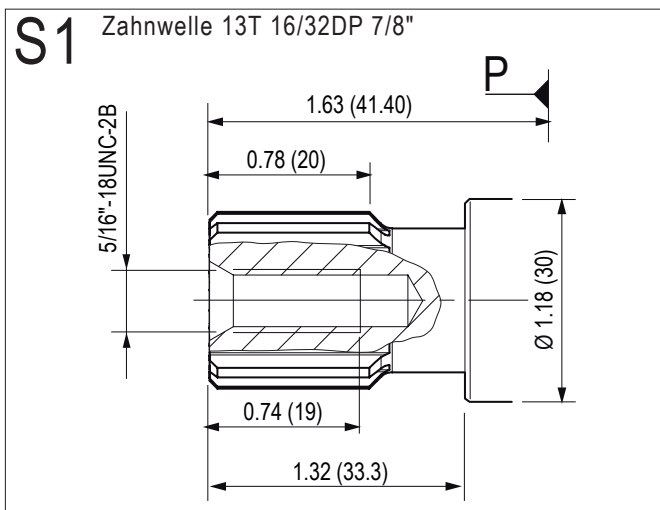
Legende:

- Verfügbare Modelle
- Auf Anfrage
- Momentan nicht erhältlich

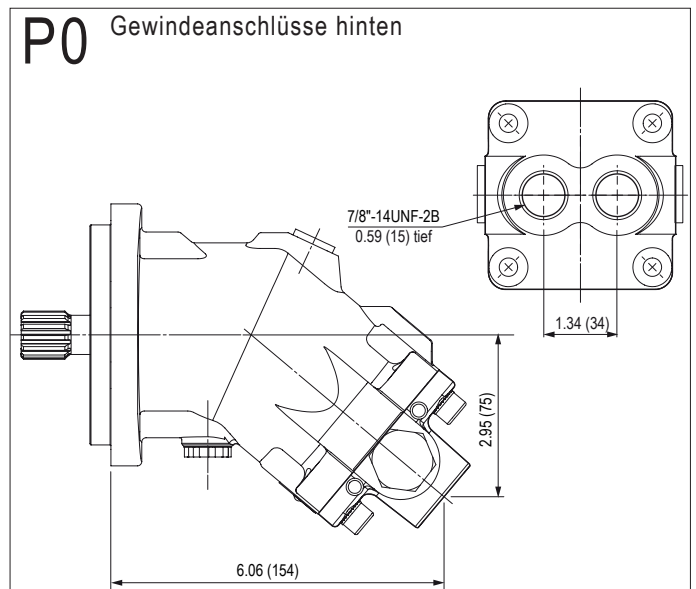
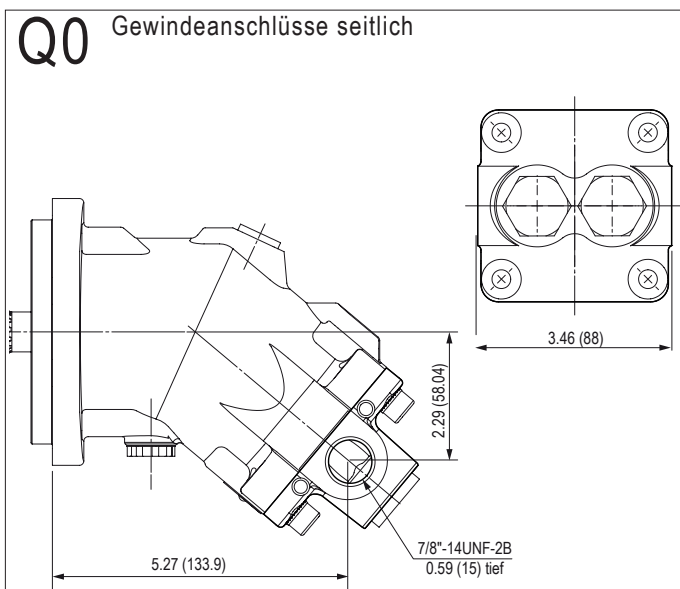
*($\Delta p = 25$ bar)



► Wellenausführung



► Eintritt / Austritt



Maßangaben (mm) sind Anhaltswerte.

S1 Zahnwelle 14T 12/24DP 1¼"

Technical drawing of a S1 Zahnwelle 14T 12/24DP 1¼" gear shaft. The drawing shows a side view of the shaft with a gear profile. The shaft has a total length of 1,890 [48]. The gear profile has a pitch diameter of 1,378 [35] and a total width of 1,330 [33,8]. The shaft has a keyway with a width of 0,984 [25]. The shaft is labeled with a pressure angle 'P' and a thread specification '7/16" - 14 UNC - 2B'.

7/16" - 14 UNC - 2B

1,890 [48]

0,984 [25]

1,378 [35]

1,330 [33,8]

P

2,201 [55,9]

Technical drawing of a cylindrical shaft with a keyway. The drawing includes a side view and an end view.

Side View Dimensions:

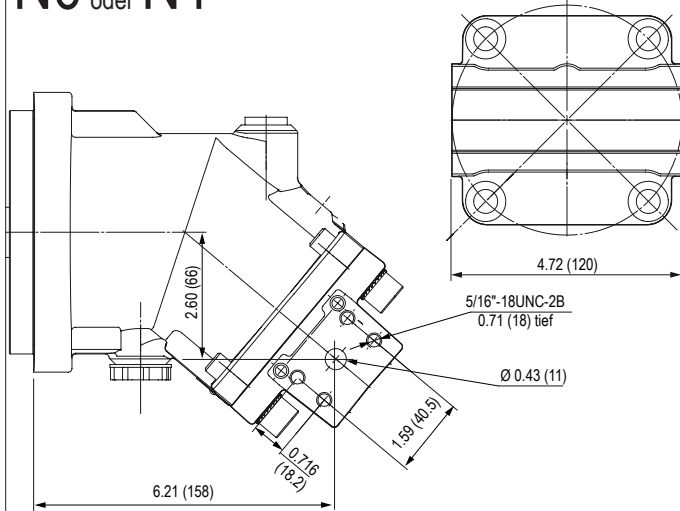
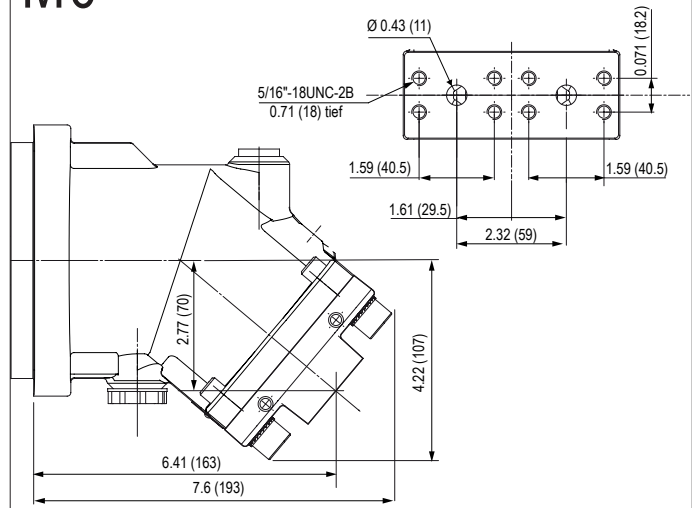
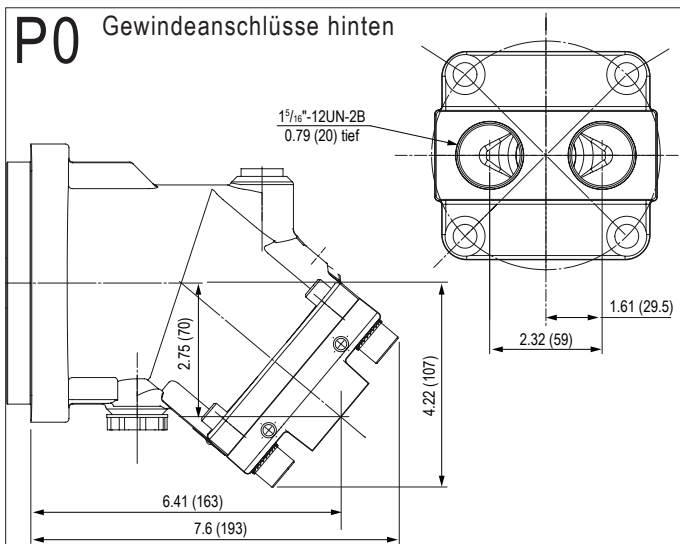
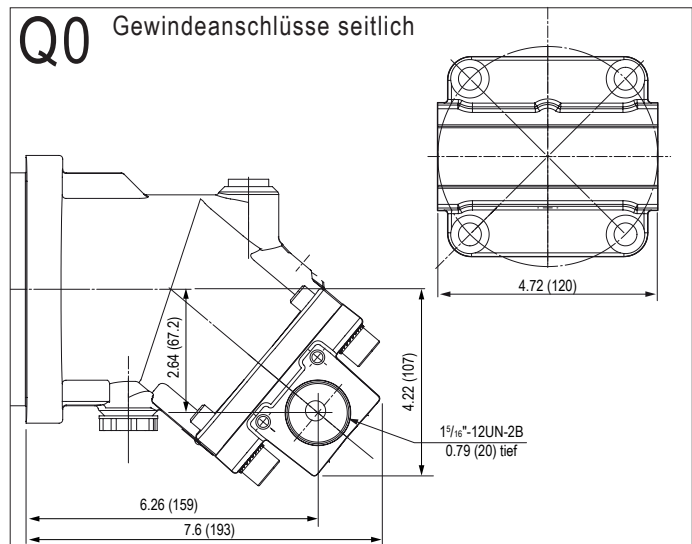
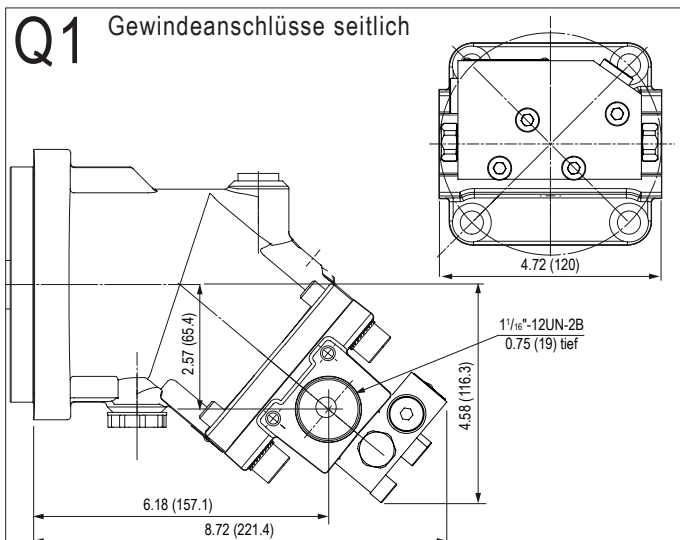
- Total length: 2.2 (55.9)
- Distance from right end to keyway start: 1.57 (40)
- Keyway width: 0.86 (22)
- Distance from left end to keyway start: 1.89 (48)
- Shaft diameter: $\varnothing 1.38$ (35)
- Key height: 0.3125 (+0.001/-0.0) (7.94)
- Key width: 0.716" ±0.002 (18.19 ±0.05)
- Key depth: 0.125 (-0.002/-0.001) (3.175 ±0.05)
- Key length: 1.386 ±0.005 (35.20 ±0.13)

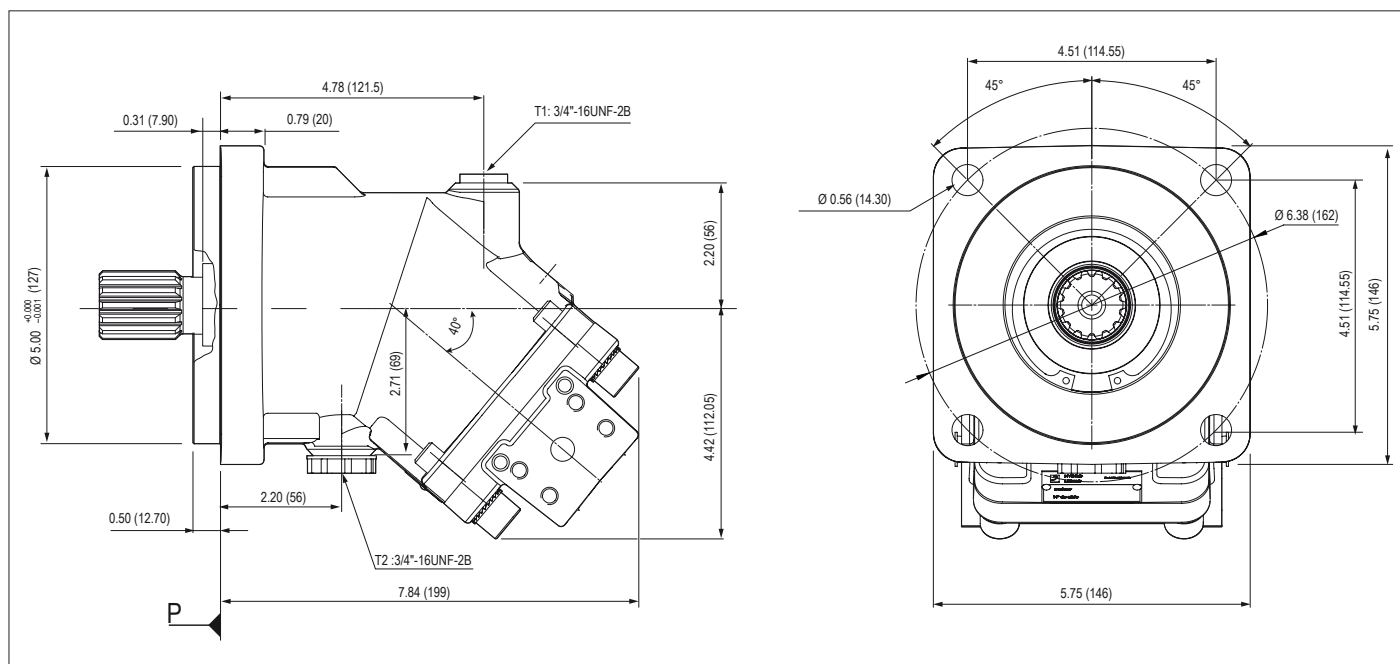
End View Dimensions:

- Keyway diameter: $\varnothing 1.16$ ±0.002 (29.5 ±0.05)

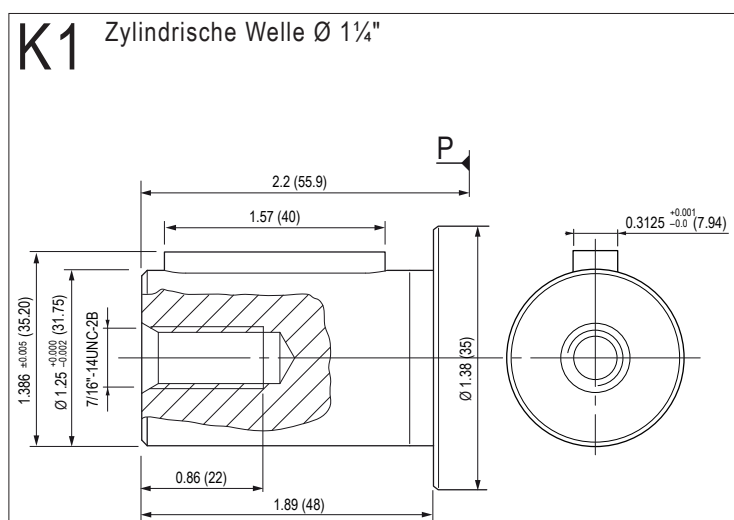
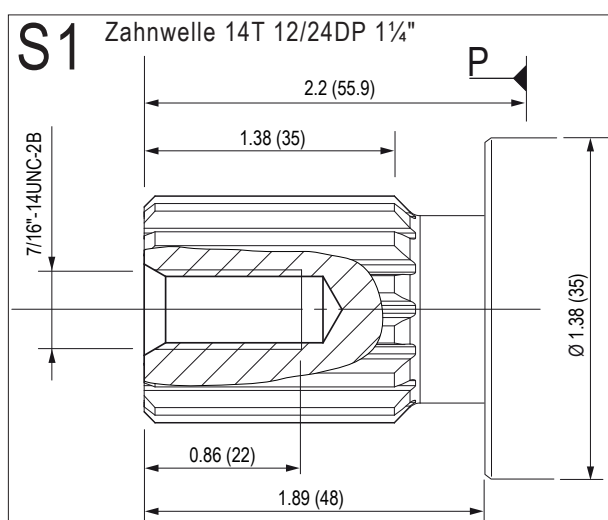
Material and Heat Treatment: 716" ±0.002 (18.19 ±0.05) 14JNC-2B

► Eintritt / Austritt

N0 oder N1 SAE 1/2" 6000 psi Anschlüsse, seitlich**M0** SAE 1/2" 6000 psi Anschlüsse, hinten**P0** Gewindeanschlüsse hinten**Q0** Gewindeanschlüsse seitlich**Q1** Gewindeanschlüsse seitlich



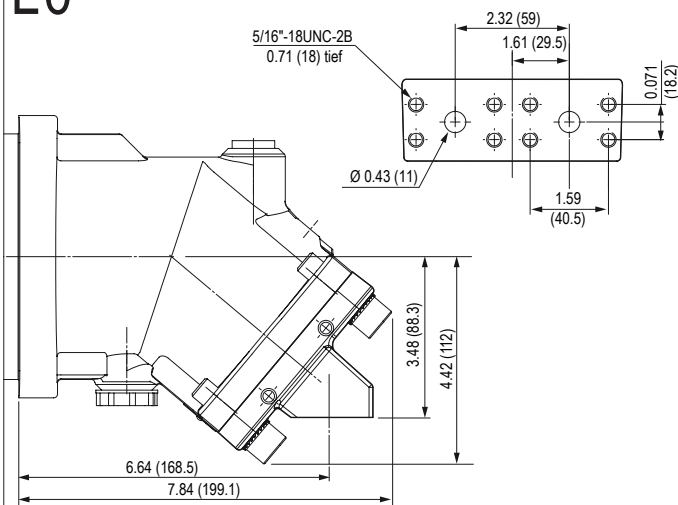
► Wellenausführung



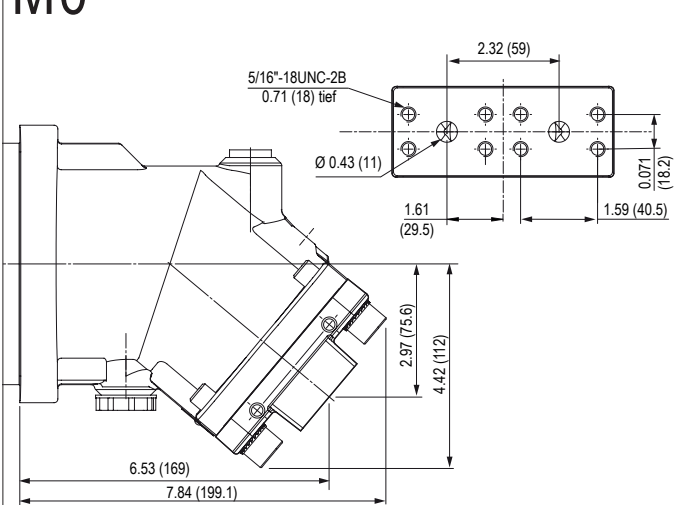
► Eintritt / Austritt

L0

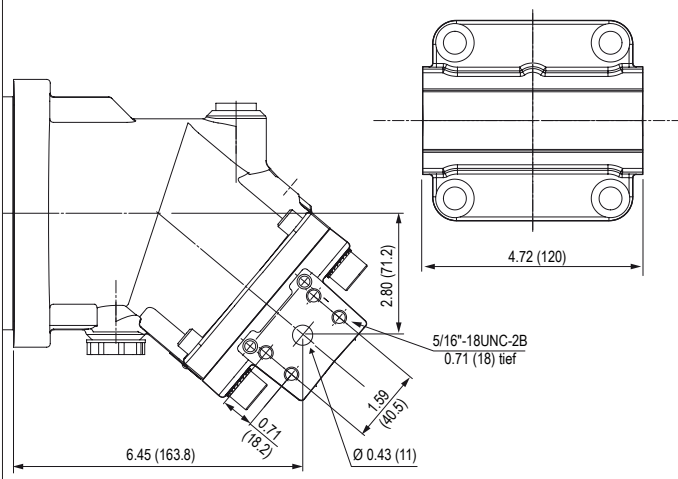
SAE 1/2" 6000 psi Anschlüsse, unten

**M0**

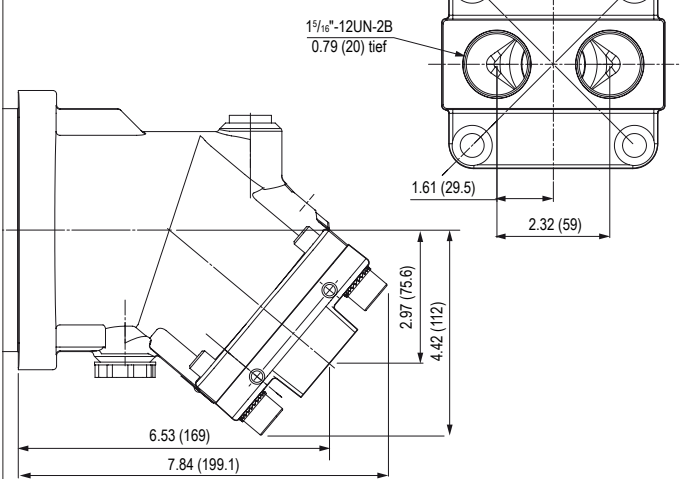
SAE 1/2" 6000 psi Anschlüsse, hinten

**N0** oder **N1**

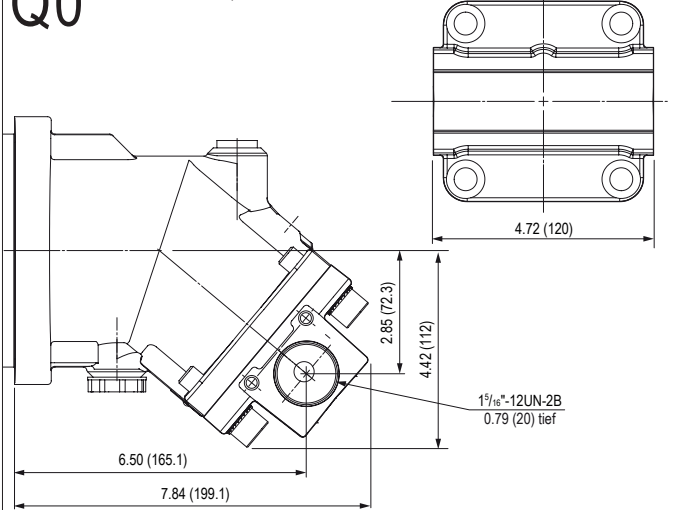
SAE 1/2" 6000 psi Anschlüsse, seitlich

**P0**

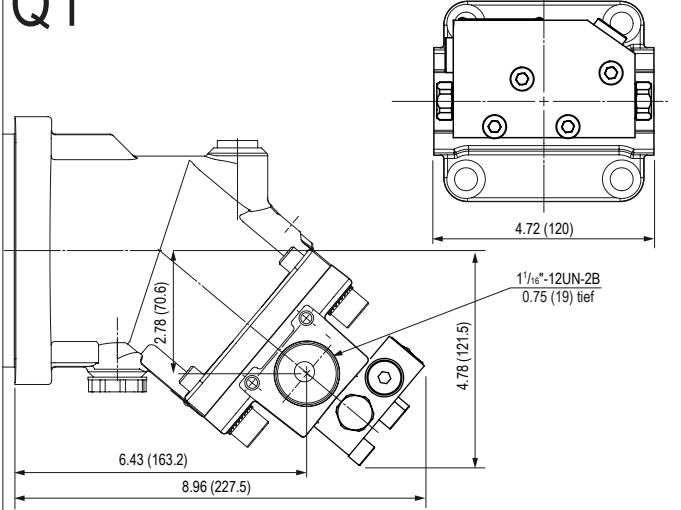
Gewindeanschlüsse hinten

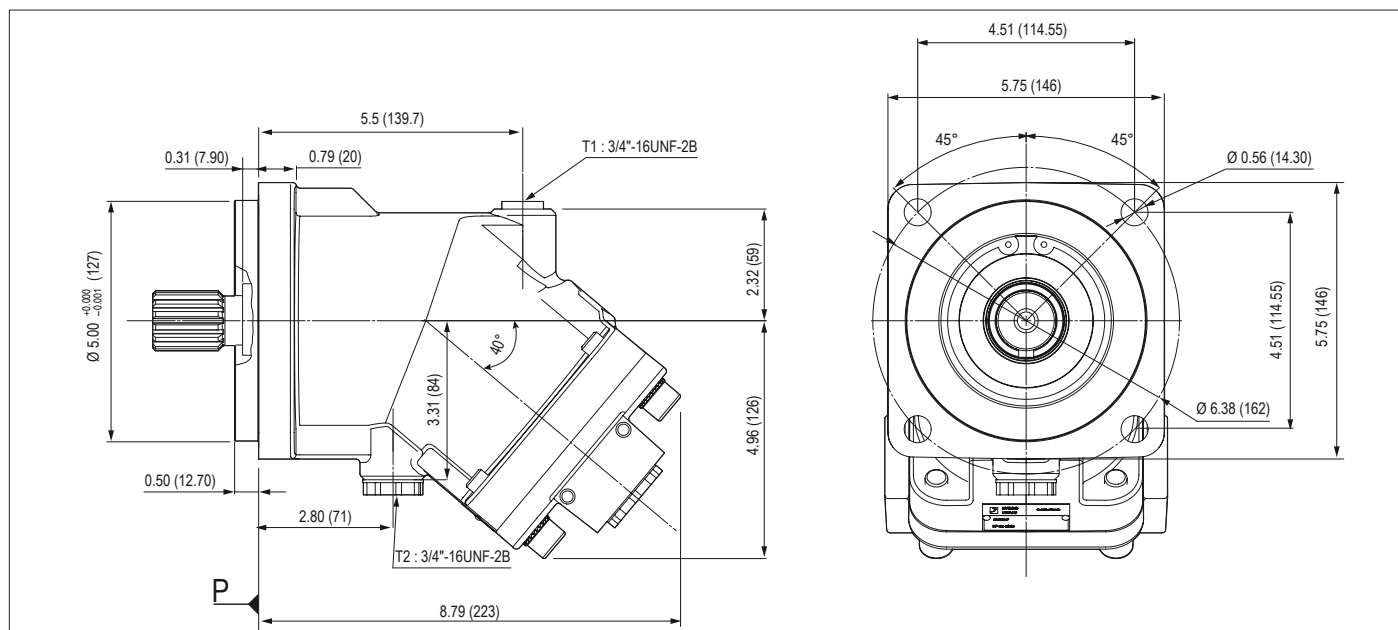
**Q0**

Anschlüsse, seitlich

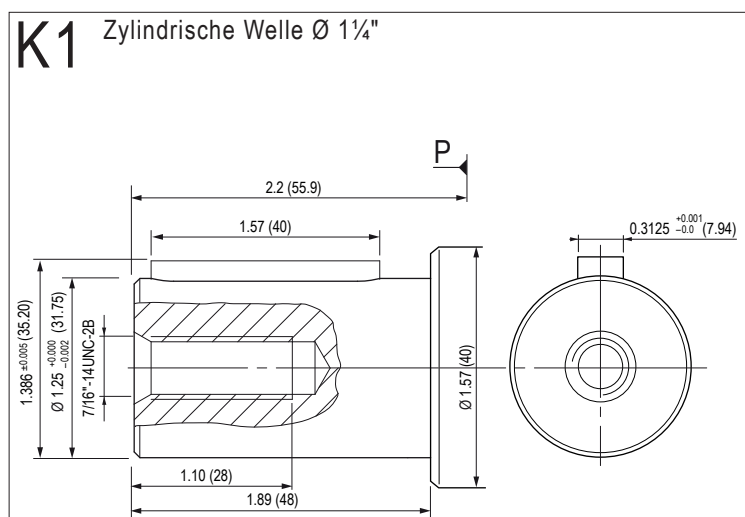
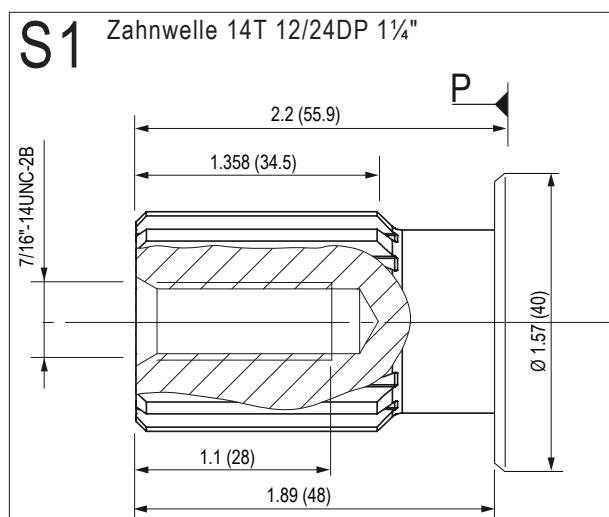
**Q1**

Gewindeanschlüsse hinten

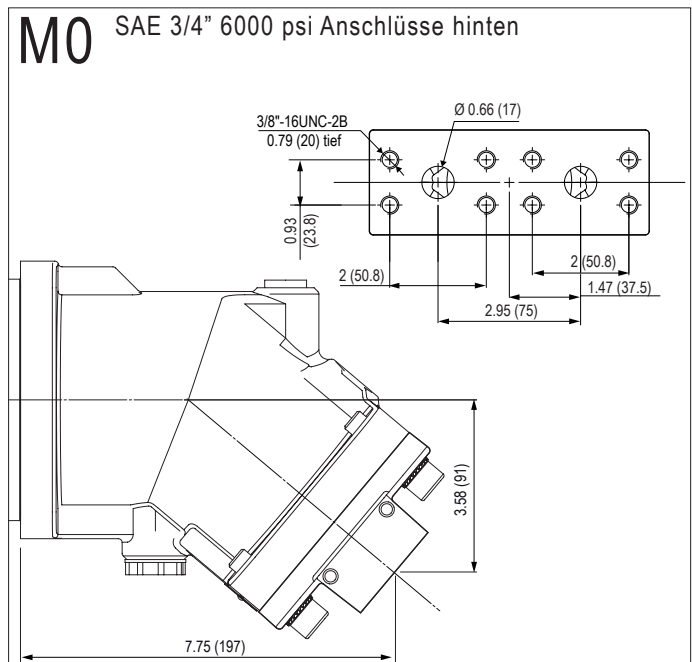
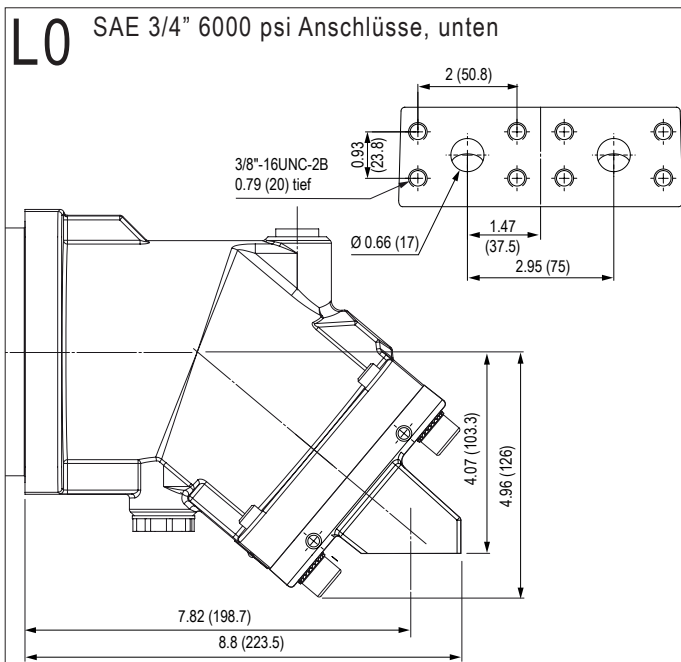




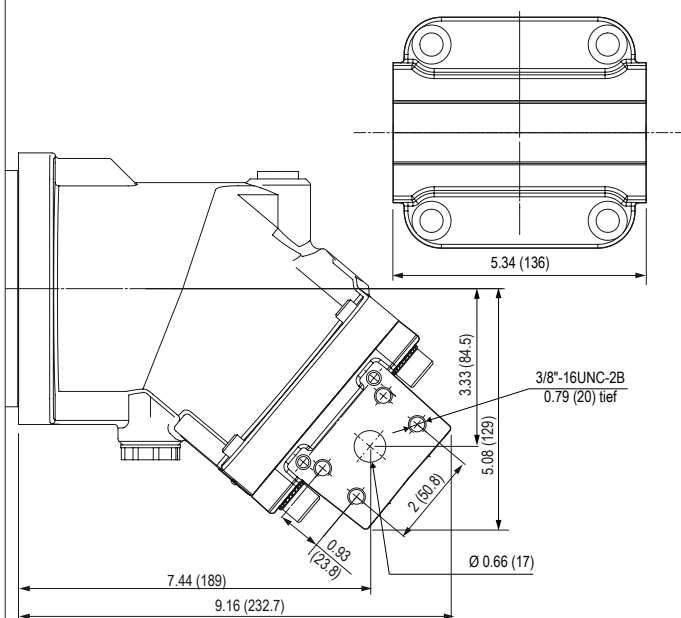
► Wellenausführung



► Eintritt / Austritt

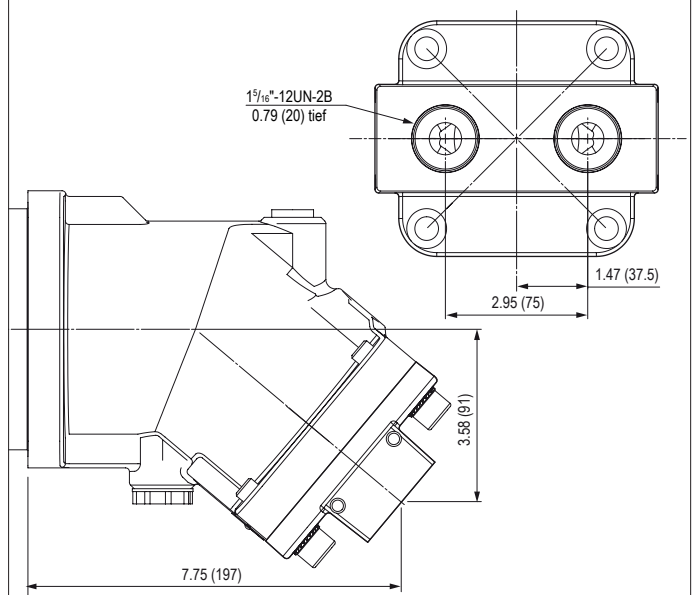


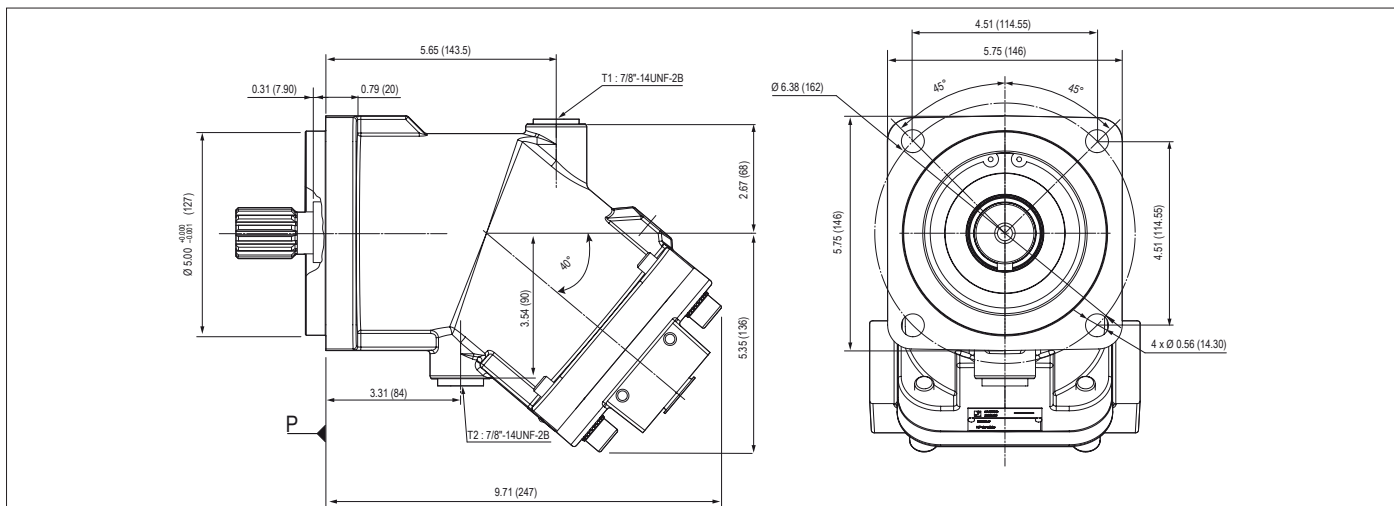
N0 oder N1 SAE 3/4" 6000 psi Anschlüsse, seitlich



P0 Gewindeanschlüsse hinten

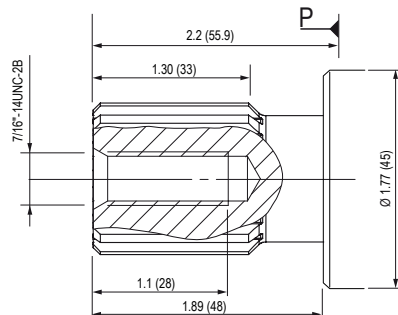
Nur für MA 45.





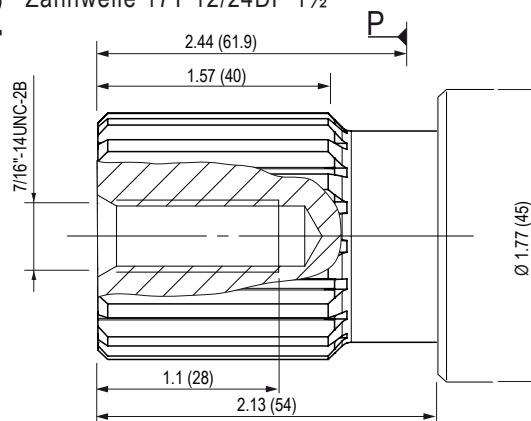
► Wellenausführung

S1 Zahnwelle 14T 12/24DP 1 1/4"



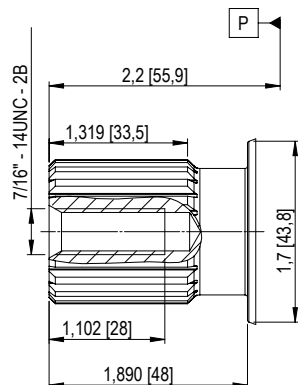
Max. Druck 350 bar (5076 psi) für MA 80.
Max. Druck 320 bar (4495 psi) für MA 90.
Max. Druck 270 bar (3916 psi) für MA108.

S2 Zahnwelle 17T 12/24DP 1 1/2"



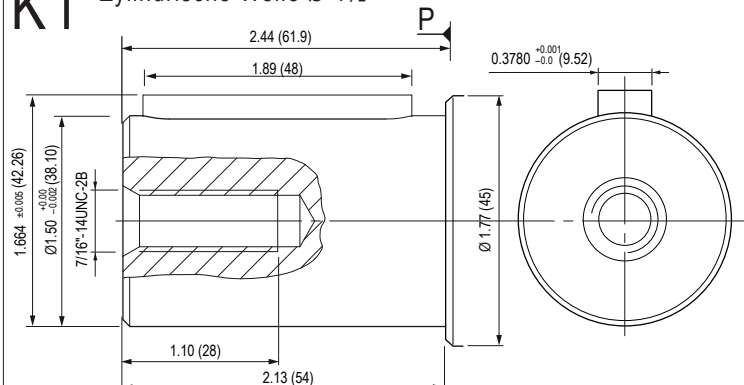
Nur für MA80
und MA90.

S3 Zahnwelle 21T 16/32DP 1 3/8"

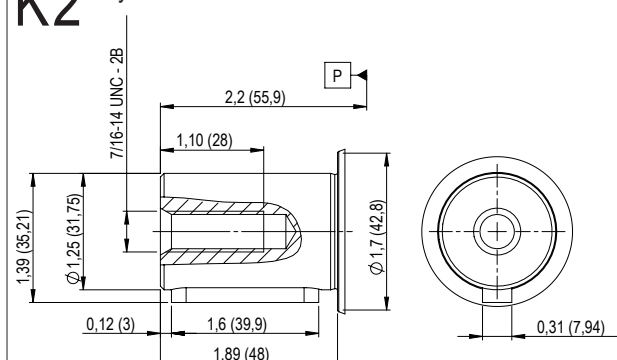


Nur für MA80
und MA90.

K1 Zylindrische Welle Ø 1 1/2"



K2 Zylindrische Welle Ø 1 1/4"

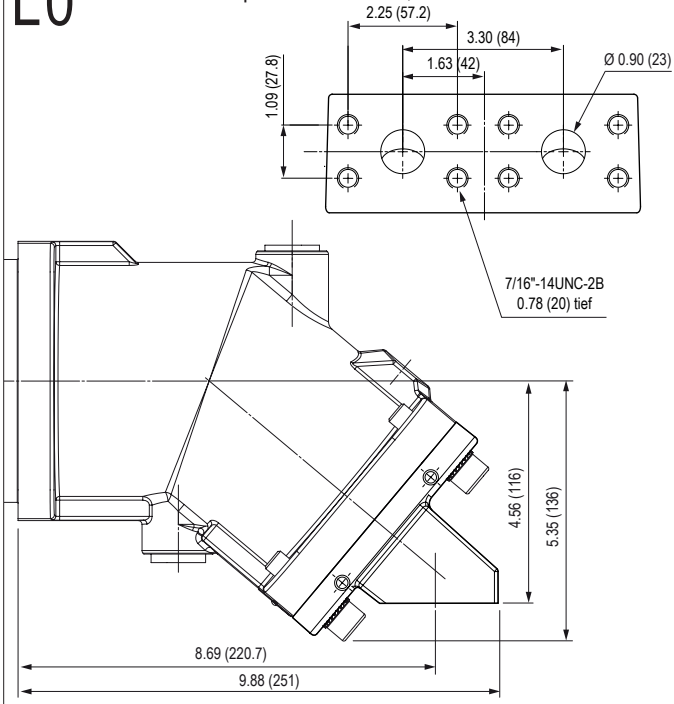


Maßangaben (mm) sind Anhaltswerte.

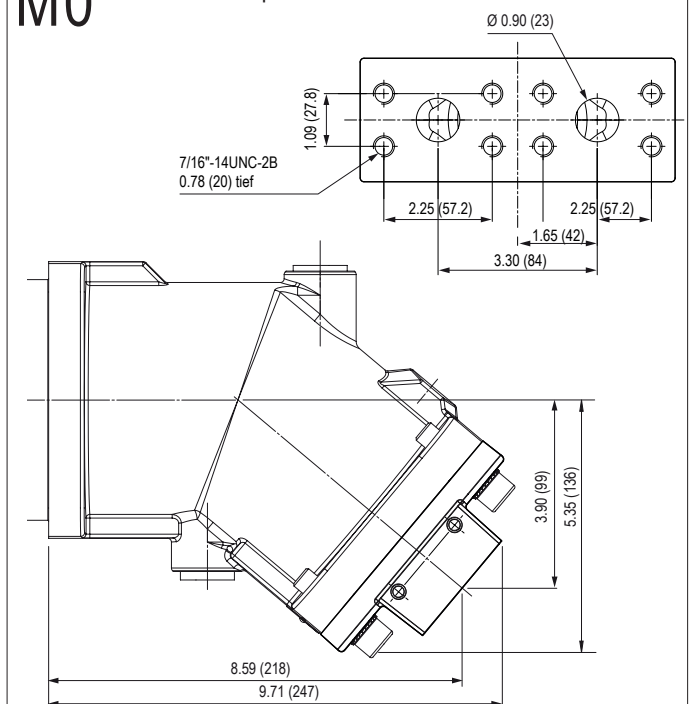
► Eintritt / Austritt

L0

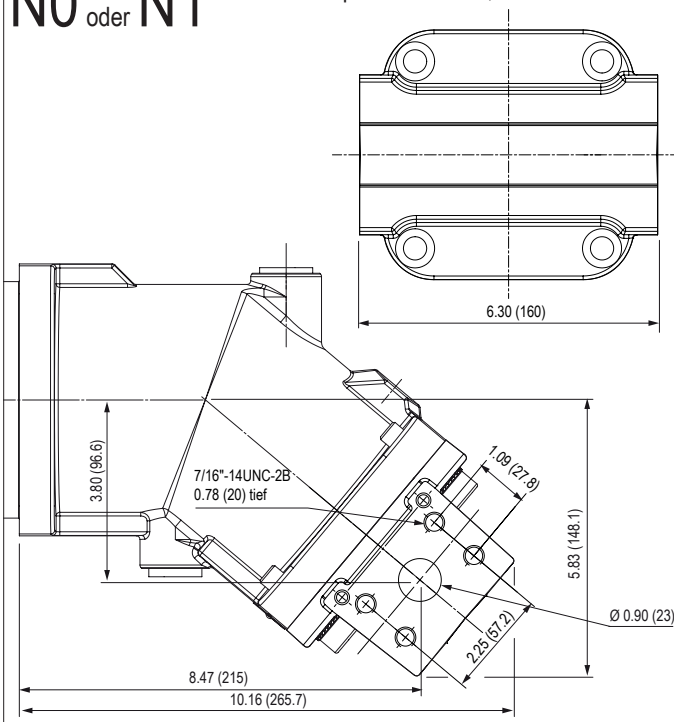
SAE 1" 6000 psi Anschlüsse, unten

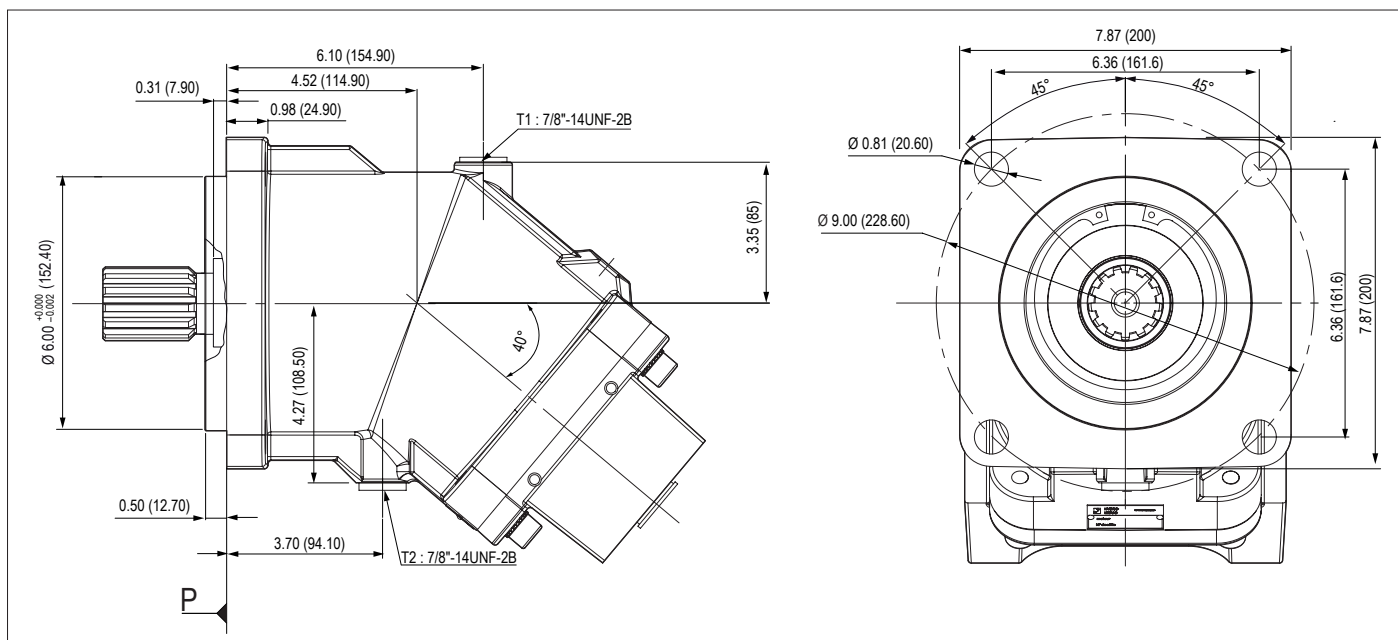
**M0**

SAE 1" 6000 psi Anschlüsse hinten

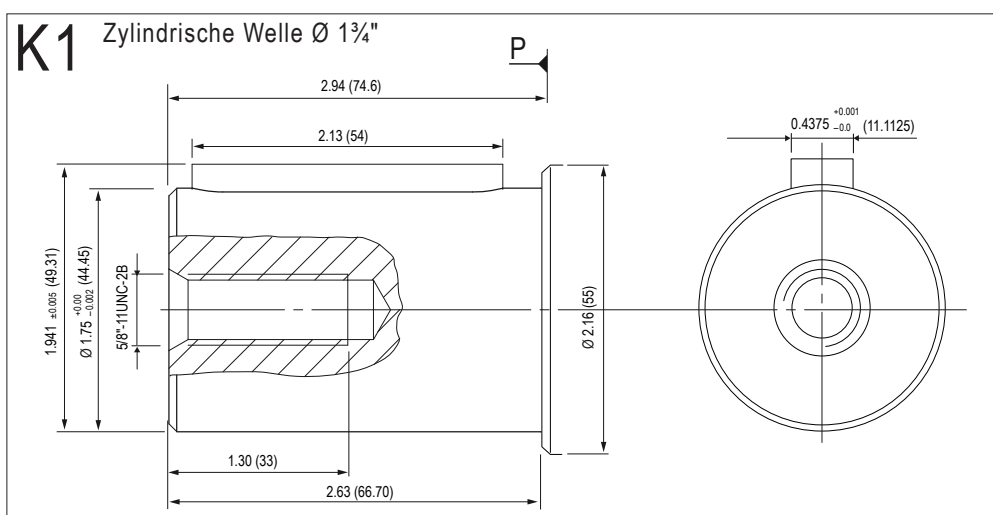
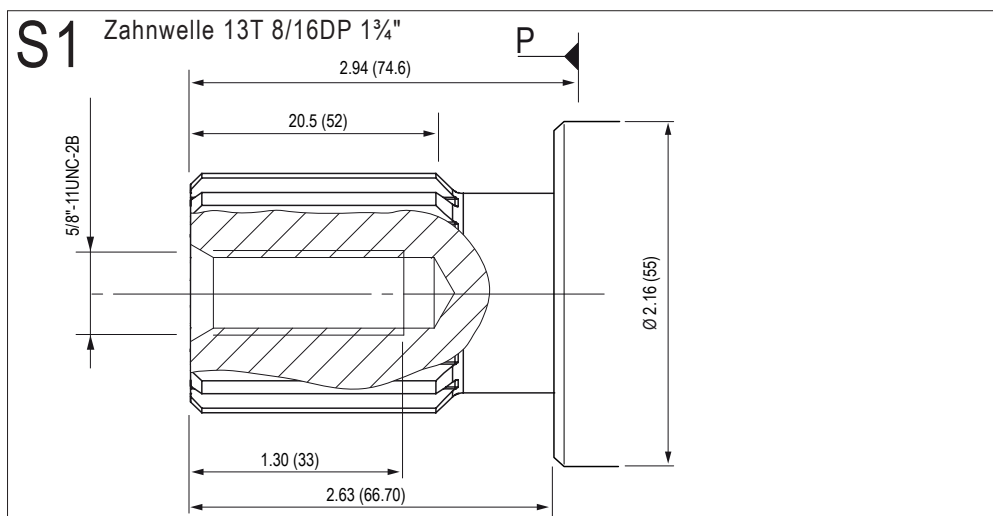
**N0 oder N1**

SAE 1" 6000 psi Anschlüsse, seitlich





► Wellenausführung

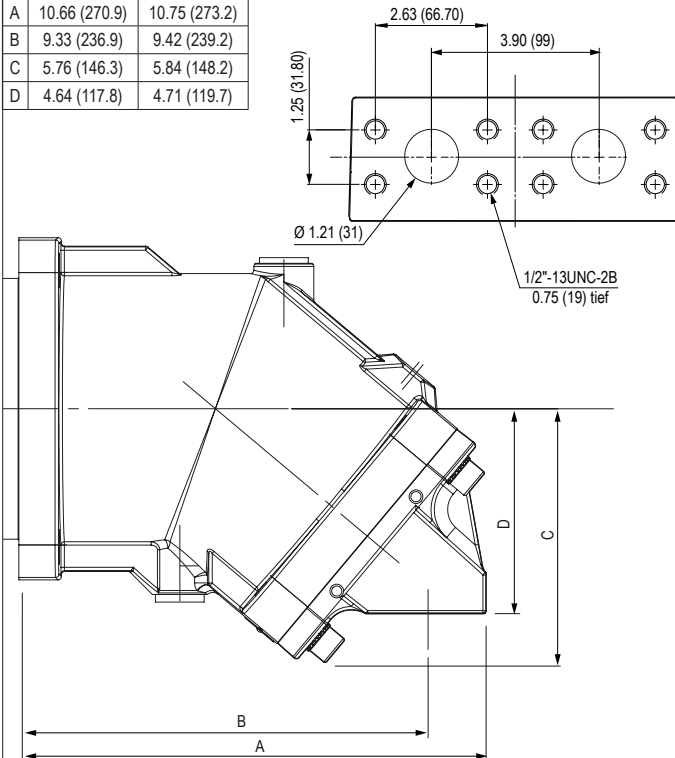
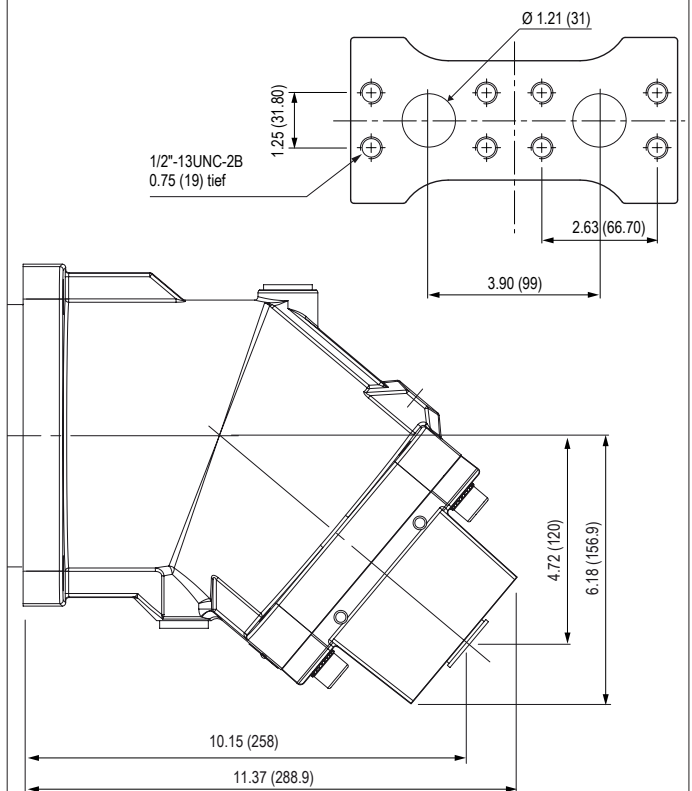


Maßangaben (mm) sind Anhaltswerte.

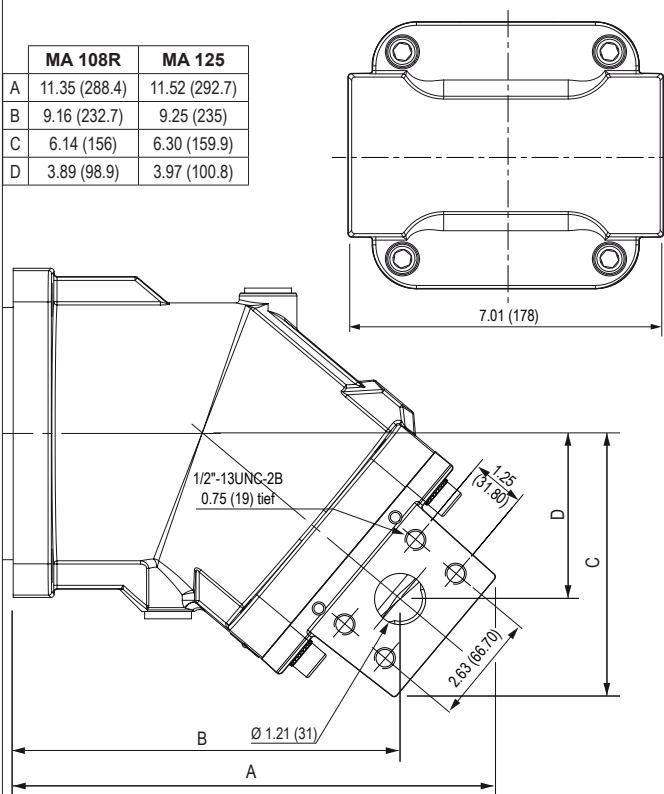
► Eintritt / Austritt

L0 SAE 1 1/4" 6000 psi Anschlüsse, unten

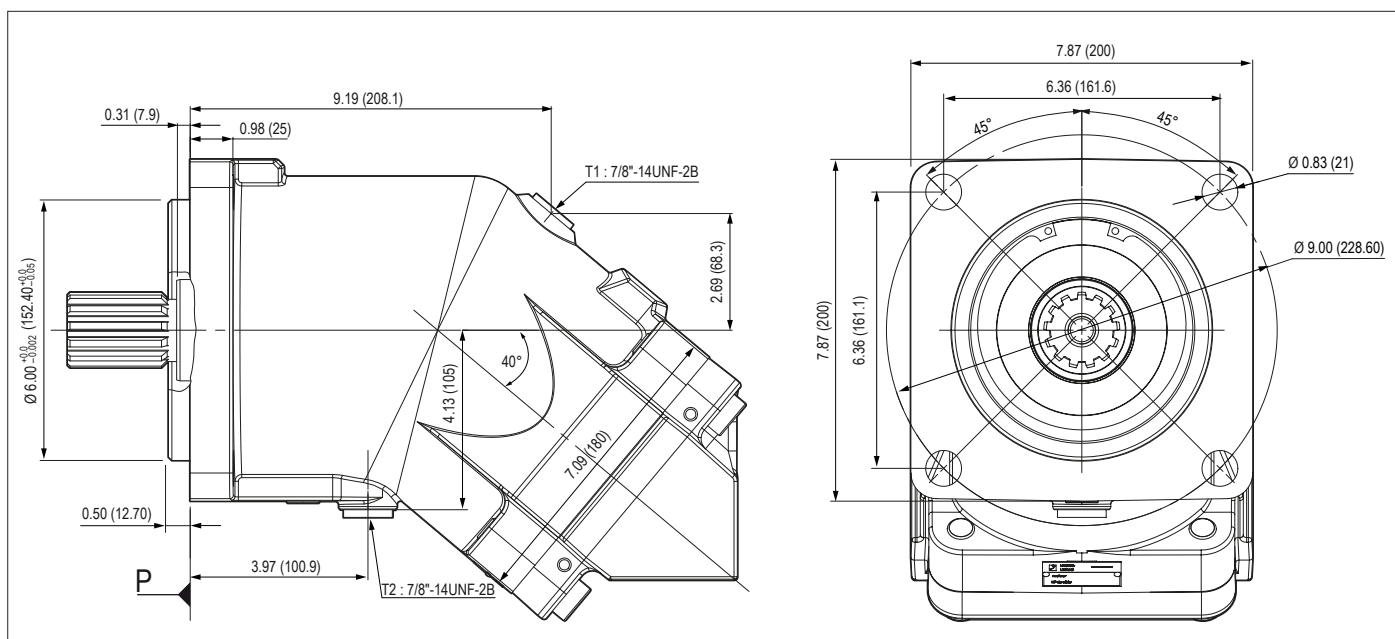
	MA 108R	MA 125
A	10.66 (270.9)	10.75 (273.2)
B	9.33 (236.9)	9.42 (239.2)
C	5.76 (146.3)	5.84 (148.2)
D	4.64 (117.8)	4.71 (119.7)

**M0** SAE 1 1/4" 6000 psi Anschlüsse, hinten**N0 oder N1** SAE 1 1/4" 6000 psi Anschlüsse, seitlich

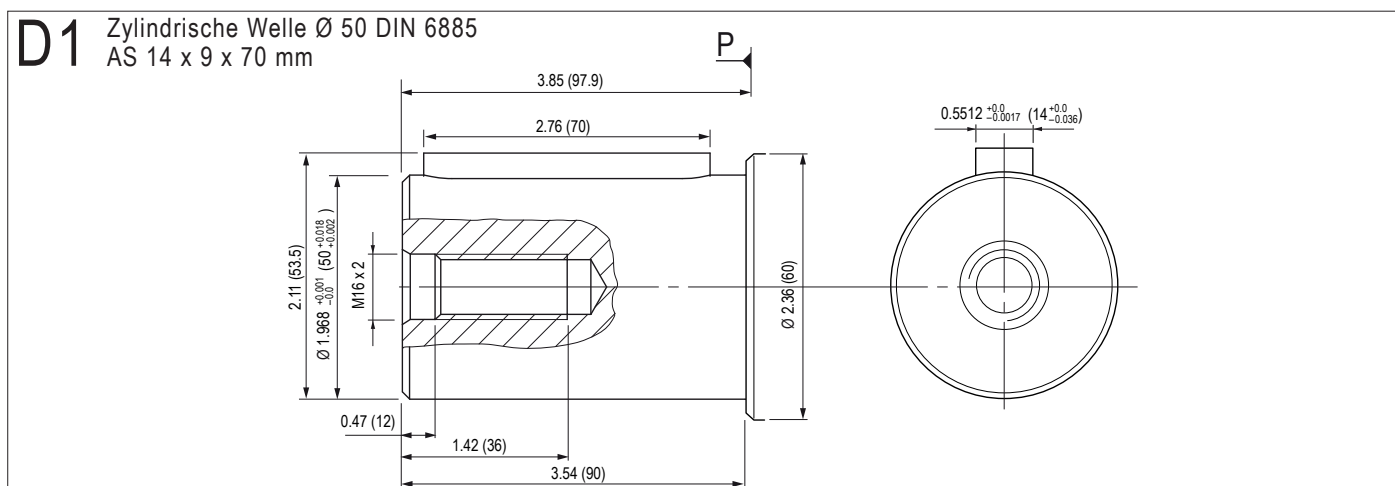
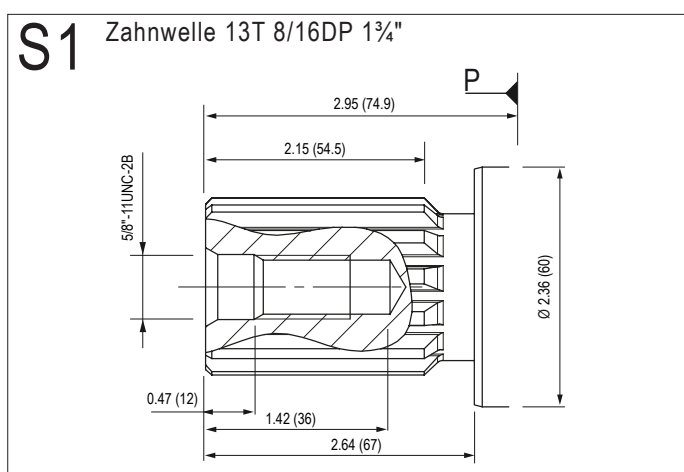
	MA 108R	MA 125
A	11.35 (288.4)	11.52 (292.7)
B	9.16 (232.7)	9.25 (235)
C	6.14 (156)	6.30 (159.9)
D	3.89 (98.9)	3.97 (100.8)



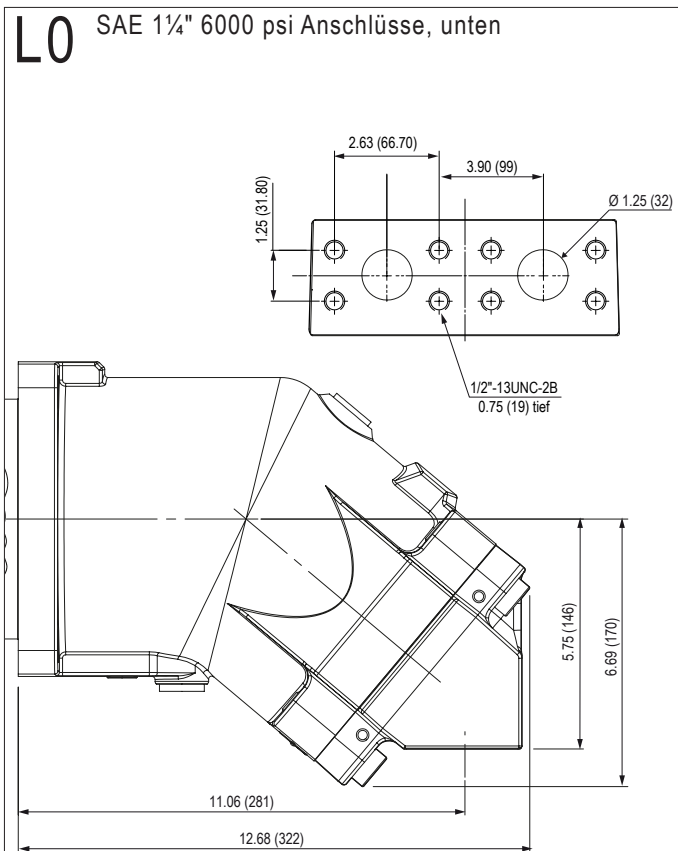
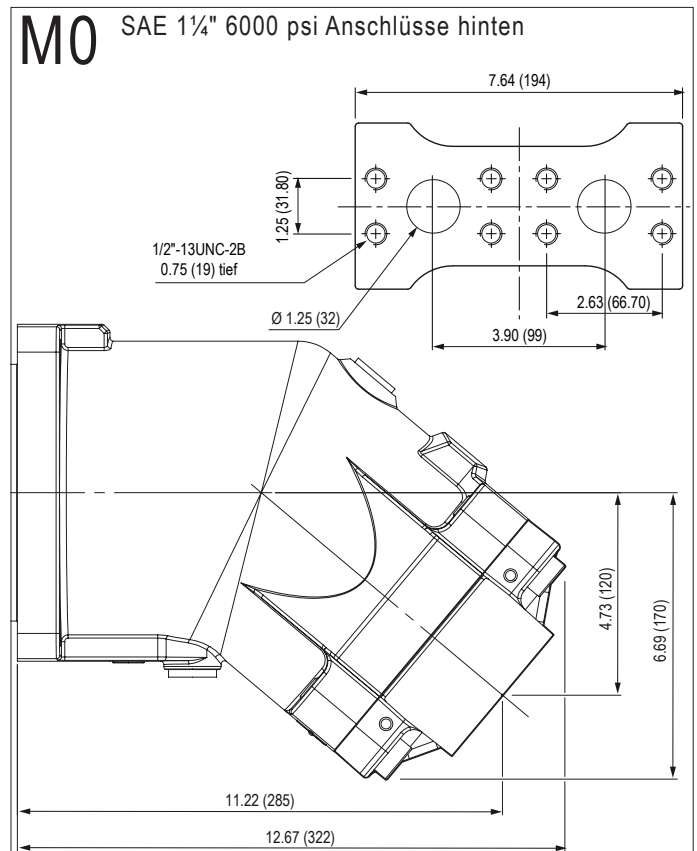
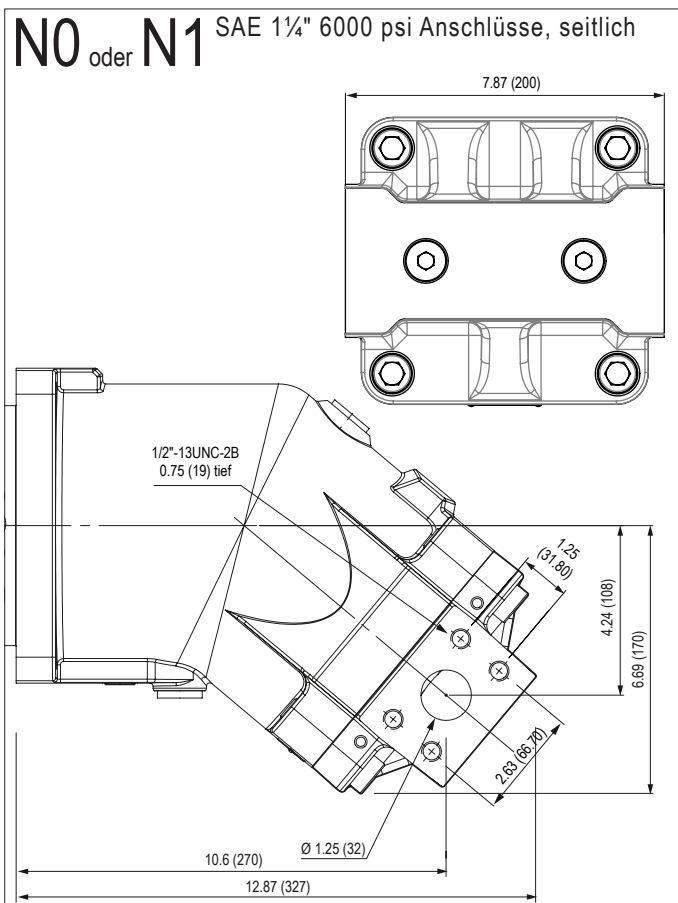
Maßangaben (mm) sind Anhaltswerte.



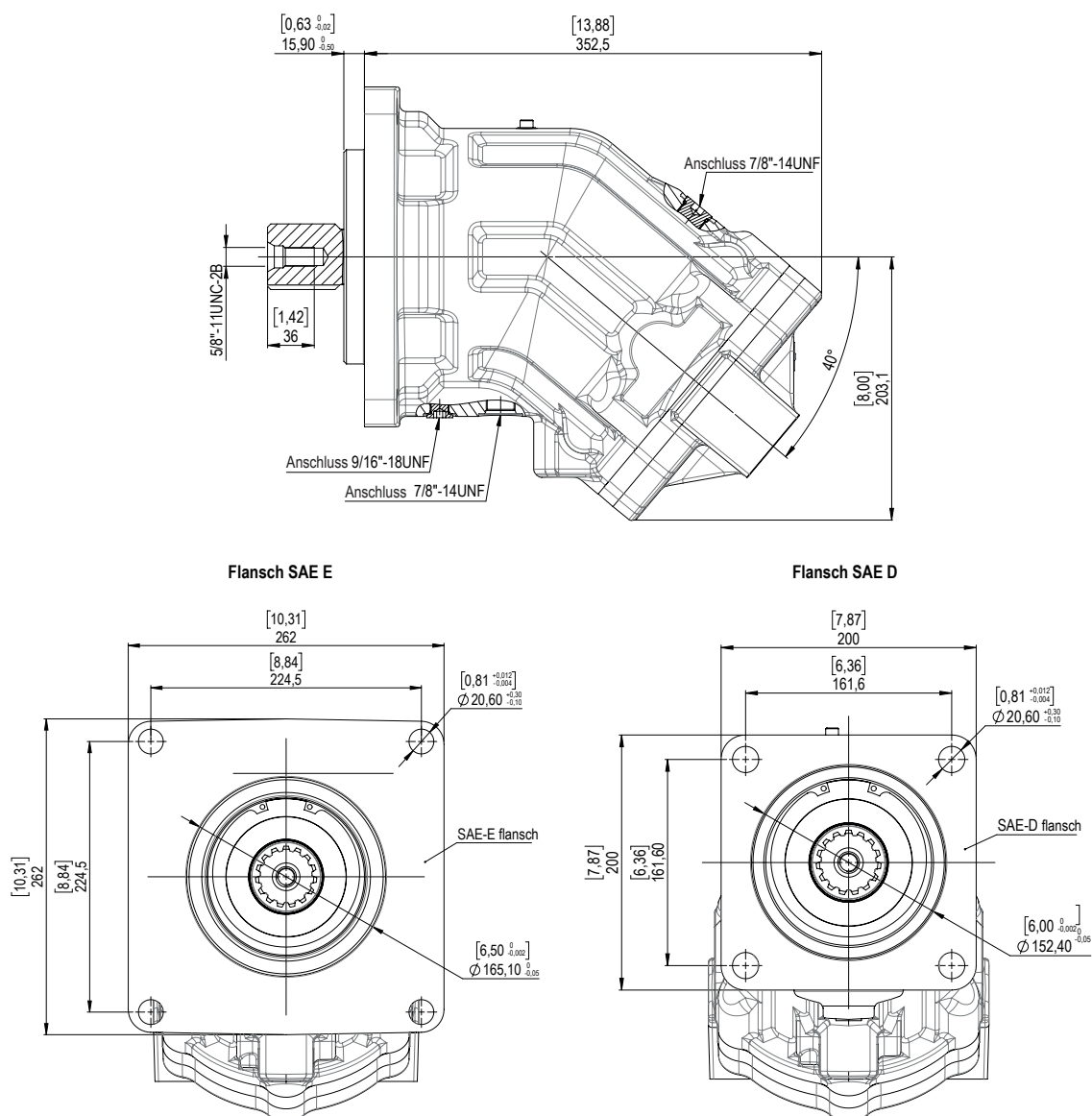
► Wellenausführung



► Eintritt / Austritt

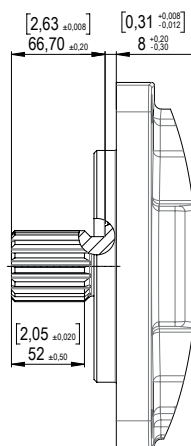
L0 SAE 1¼" 6000 psi Anschlüsse, unten**M0** SAE 1¼" 6000 psi Anschlüsse hinten**N0 oder N1** SAE 1¼" 6000 psi Anschlüsse, seitlich

Maßangaben (mm) sind Anhaltswerte.

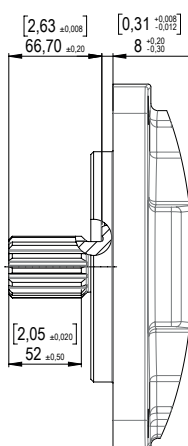


► Wellenausführung

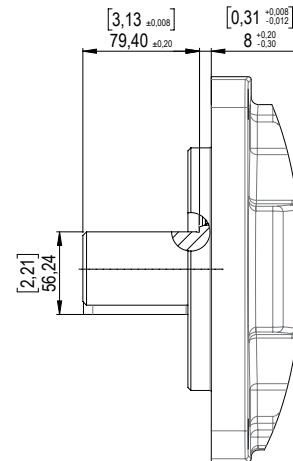
S1 Zahnwelle 15 T 8/16 DP 2"



S2 Zahnwelle 13T 8/16DP 1 3/4"

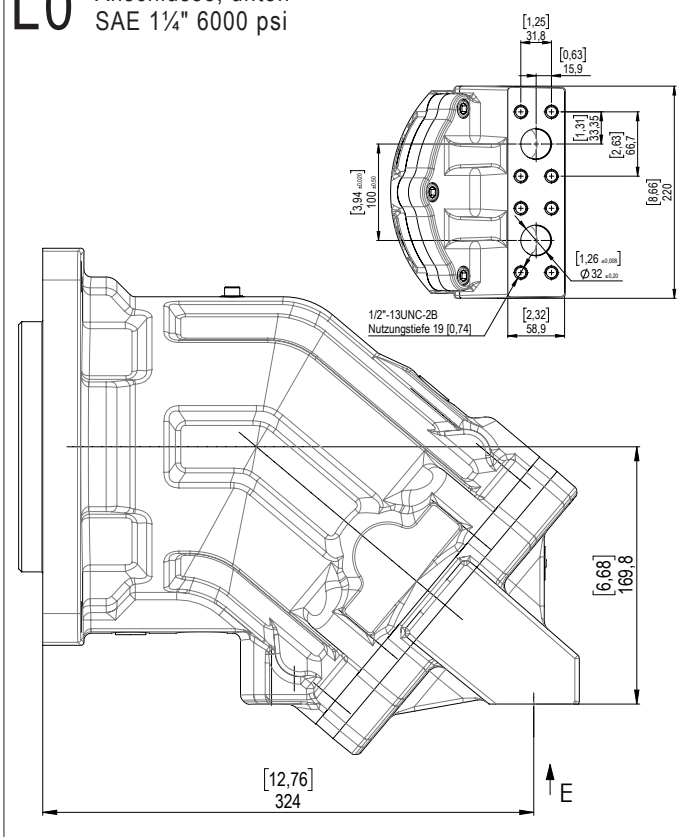
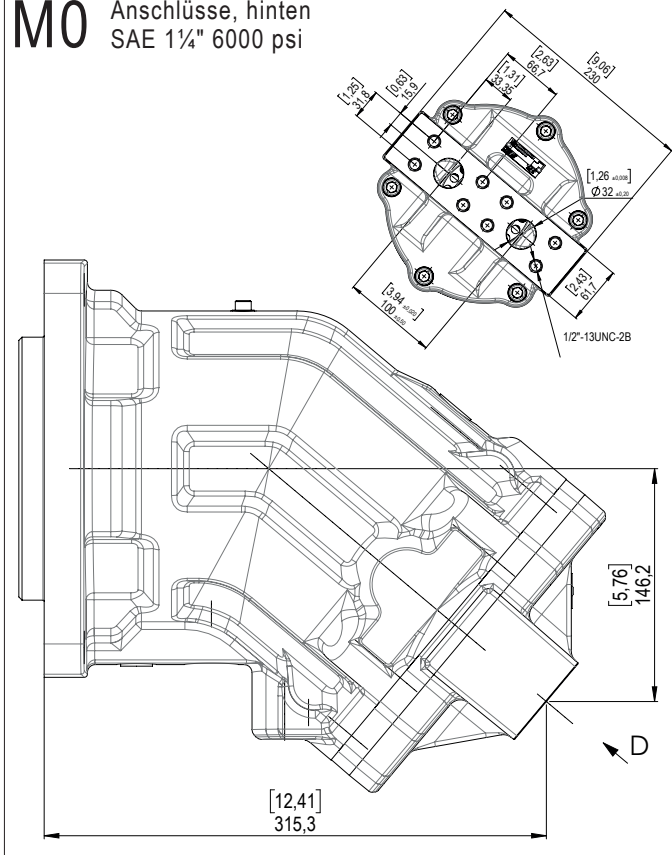
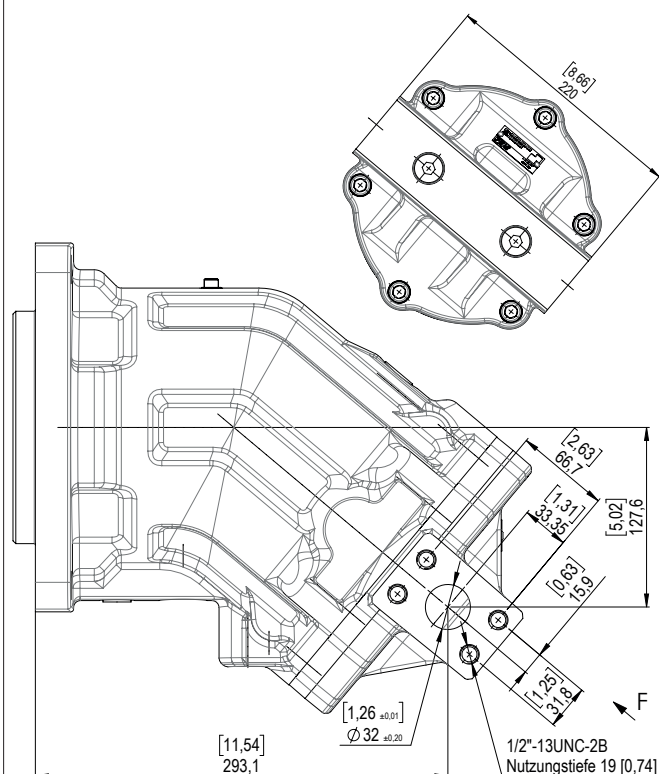


K1 Zylindrische Welle Ø 2"



Maßangaben (mm) sind Anhaltswerte.

► Eintritt / Austritt

L0 Anschlüsse, unten
SAE 1 1/4" 6000 psi**M0** Anschlüsse, hinten
SAE 1 1/4" 6000 psi**N0 oder N1** SAE 1 1/4" 6000 psi Anschlüsse, seitlich

Maßangaben (mm) sind Anhaltswerte.