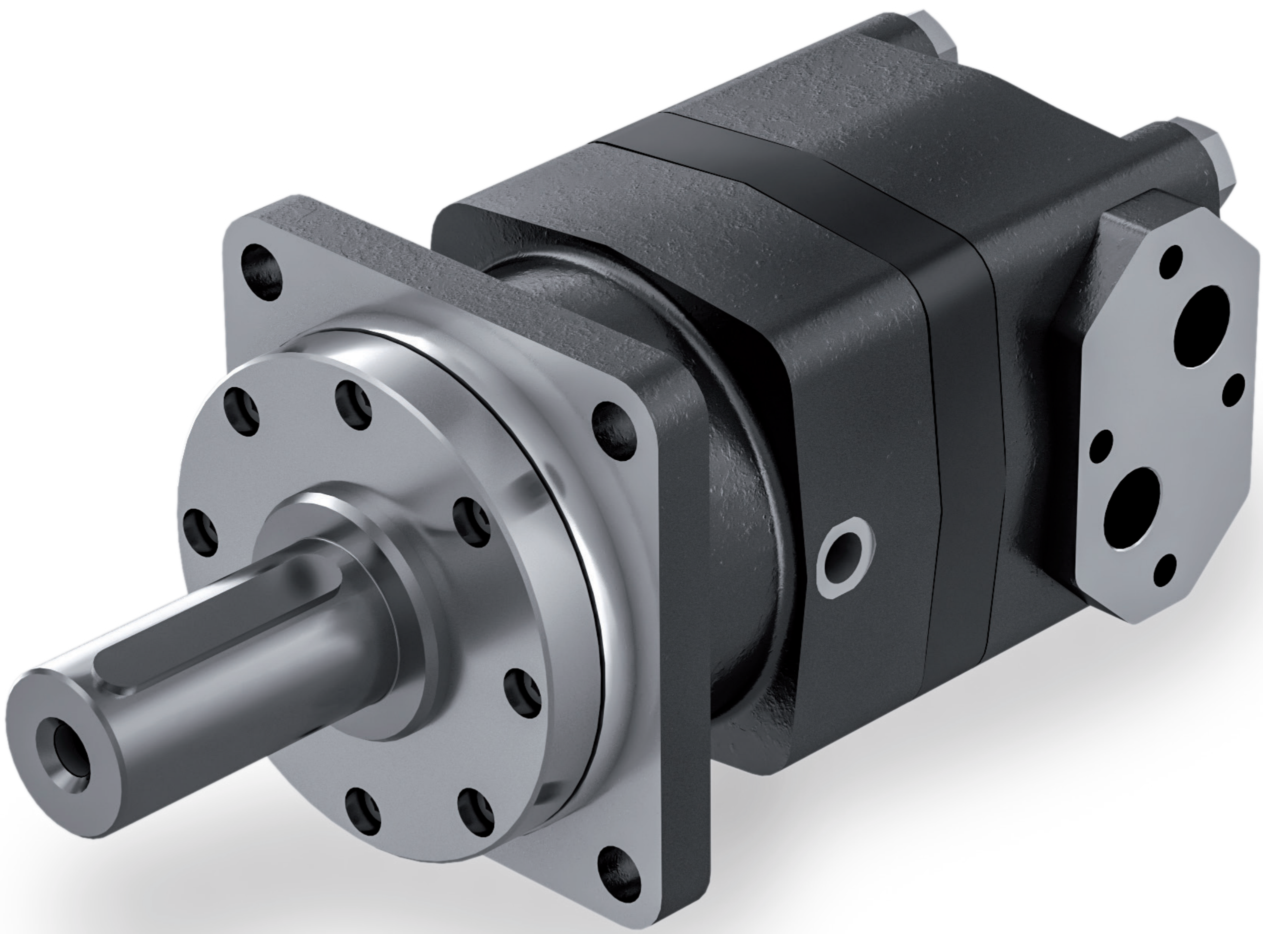
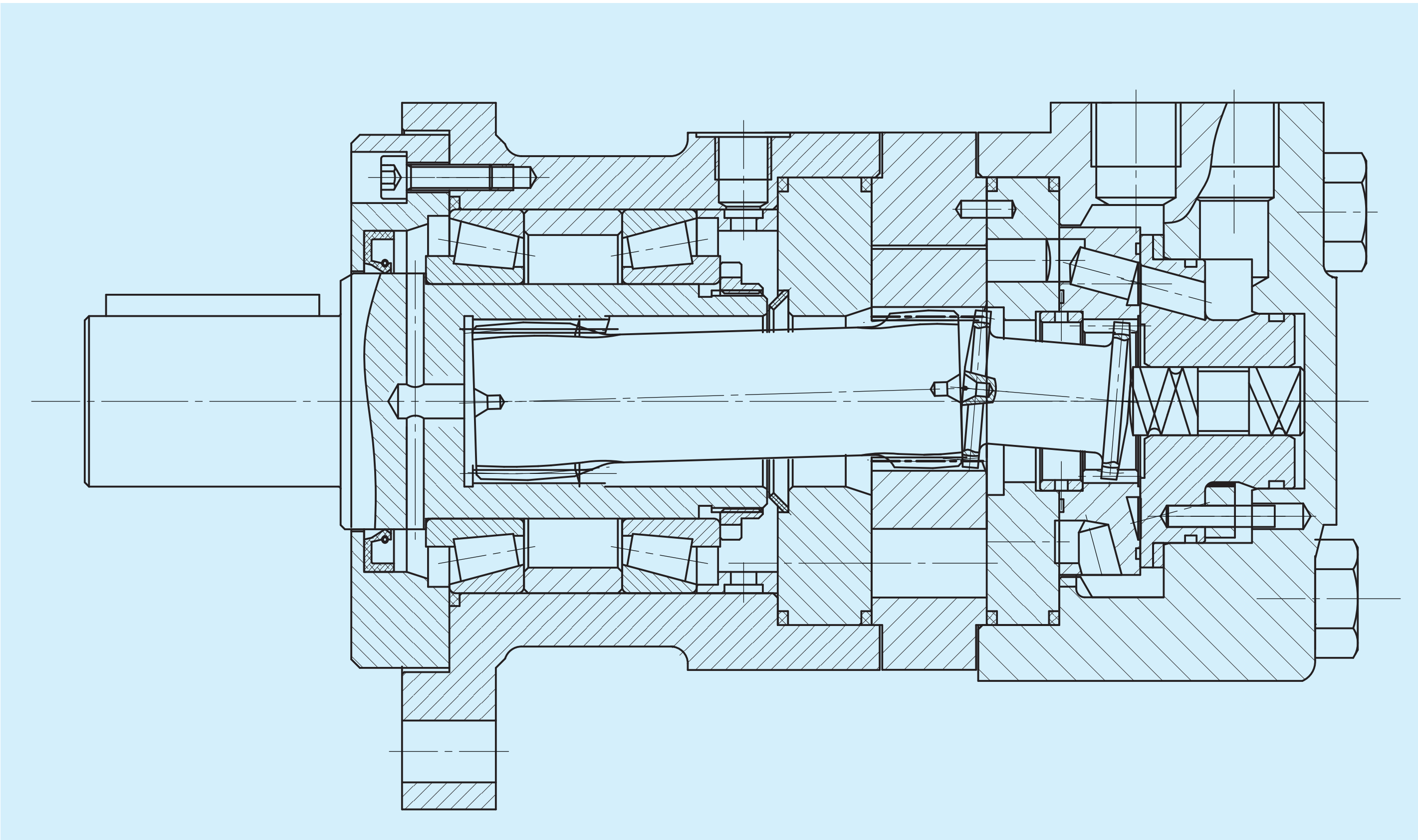
Roller motors with front distribution



Before use, carefully read the GENERAL INSTRUCTIONS FOR USE OF ORBITAL MOTORS.

Displacement



Roller motor with pressure-compensated disc valve distribution and tapered roller bearings, suitable for use where very high radial and axial bearing capacities are required.

	Displacement	Pressure			Torque			Rotational speed	Max. flow rate	Max. output power	Weight
		Continuous	Intermittent	Peak	Continuous	Intermittent	Peak				
	cm³/rev	**bar**	**bar**	**bar**	**Nm**	**Nm**	**Nm**	**min⁻¹**	**l/min**	**kW**	**kg**
160	158.8	240	270	300	559	639	710	10-625	100	24.1	20.3
200	200.8	240	270	300	714	789	879	9-500	100	30	20.8
250	252.2	240	270	300	883	985	1093	8-400	100	30	21.4
320	317.5	230	260	290	1095	1227	1369	7-312	100	28.8	22.4
400	401.6	210	230	250	1255	1371	1490	6-250	100	25.3	23
500	535.5	180	200	230	1377	1521	1750	5-175	100	24.1	24

Intermittent conditions must not last more than 10% of each minute.
Peak conditions must not last more than 1% of each minute.

160 158.8 cm³/rev

Flow rate l/min	Pressure bar 40	80	120	160	200	240	270
10	77 **61**	158 **60**	243 **57**	336 **55**	430 **51**	516 **45**	574 **41**
20	79 **122**	162 **120**	249 **115**	336 **111**	435 **107**	522 **101**	587 **91**
40	80 **247**	166 **242**	255 **239**	348 **232**	440 **224**	534 **217**	601 **189**
60	79 **370**	162 **366**	249 **363**	336 **355**	435 **348**	522 **340**	587 **302**
80	75 **499**	158 **494**	246 **489**	332 **479**	425 **469**	510 **458**	574 **413**
100	68 **623**	154 **617**	243 **611**	328 **598**	420 **586**	504 **573**	567 **529**
125	61 **779**	142 **771**	228 **764**	324 **748**	410 **732**	492 **716**	553 **661**

Torque Nm
Rotational speed min^{-1}

Pressure Continuous | Pressure Intermittent

200 200.8 cm³/rev

Flow rate l/min	Pressure bar 40	80	120	160	200	240	270
10	97 **48**	200 **47**	307 **45**	425 **44**	544 **40**	652 **36**	725 **32**
20	100 **97**	205 **95**	315 **91**	425 **88**	550 **85**	660 **80**	742 **72**
40	101 **195**	210 **191**	322 **189**	440 **183**	556 **177**	675 **171**	760 **149**
60	100 **293**	205 **290**	315 **287**	425 **281**	550 **275**	660 **269**	742 **239**
80	95 **394**	200 **390**	311 **386**	420 **378**	537 **371**	645 **363**	725 **327**
100	86 **493**	194 **488**	307 **483**	414 **473**	531 **463**	637 **453**	717 **418**
125	77 **616**	179 **610**	288 **604**	409 **591**	518 **579**	622 **566**	699 **523**

Torque Nm
Rotational speed min^{-1}

Pressure Continuous | Pressure Intermittent

250 252.2 cm³/rev

Flow rate l/min	Pressure bar 40	80	120	160	200	240	270
10	122 **38**	251 **38**	386 **36**	533 **35**	683 **32**	819 **29**	911 **26**
20	125 **77**	257 **75**	395 **72**	533 **70**	691 **67**	829 **63**	932 **57**
40	127 **155**	263 **152**	405 **151**	553 **146**	699 **141**	848 **136**	954 **119**
60	125 **233**	257 **231**	395 **228**	533 **224**	691 **219**	829 **214**	932 **190**
80	119 **314**	251 **311**	390 **308**	527 **301**	675 **295**	810 **289**	911 **260**
100	108 **393**	244 **389**	386 **385**	520 **377**	667 **369**	800 **361**	900 **333**
125	96 **491**	225 **486**	361 **481**	514 **471**	651 **461**	781 **451**	878 **416**

Torque Nm
Rotational speed min^{-1}

Pressure Continuous | Pressure Intermittent

320 317.5 cm³/rev

Flow rate l/min	Pressure bar 40	80	120	160	200	230	260
10	154 **31**	315 **30**	485 **29**	671 **28**	859 **26**	988 **23**	1104 **20**
20	158 **61**	324 **60**	497 **57**	671 **55**	870 **54**	1000 **50**	1130 **45**
40	160 **123**	332 **121**	510 **120**	696 **116**	880 **112**	1023 **108**	1157 **94**
60	158 **185**	324 **183**	497 **181**	671 **178**	870 **174**	1000 **170**	1130 **151**
80	150 **249**	315 **247**	491 **244**	663 **239**	849 **234**	977 **229**	1104 **207**
100	135 **312**	307 **309**	485 **306**	655 **299**	839 **293**	965 **287**	1091 **265**
125	121 **390**	283 **386**	455 **382**	647 **374**	819 **366**	942 **358**	1065 **331**

Torque Nm
Rotational speed min^{-1}

Pressure Continuous | Pressure Intermittent

400 401.6 cm³/rev

Flow rate l/min	Pressure bar 30	60	100	140	180	210	230
10	146 **24**	299 **24**	512 **23**	743 **22**	978 **20**	1141 **18**	1235 **16**
20	150 **48**	307 **47**	524 **45**	743 **44**	990 **42**	1155 **40**	1265 **36**
40	152 **98**	315 **96**	537 **95**	770 **92**	1001 **89**	1182 **86**	1294 **75**
60	150 **146**	307 **145**	524 **143**	743 **140**	990 **137**	1166 **134**	1265 **120**
80	142 **197**	299 **195**	518 **193**	734 **189**	967 **185**	1142 **181**	1235 **163**
100	129 **247**	292 **244**	512 **242**	725 **237**	955 **232**	1115 **227**	1221 **209**
125	115 **308**	269 **305**	480 **302**	716 **296**	932 **289**	1088 **283**	1191 **261**

Torque Nm
Rotational speed min^{-1}

Pressure Continuous | Pressure Intermittent

500 535.3 cm³/rev

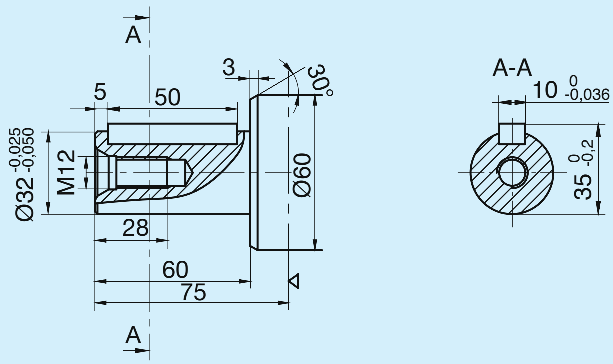
Flow rate l/min	Pressure bar 30	60	90	120	160	180	200
10	194 **18**	399 **18**	614 **17**	849 **16**	1159 **15**	1304 **13**	1432 **12**
20	199 **36**	409 **35**	629 **34**	849 **33**	1173 **32**	1319 **30**	1466 **27**
40	202 **73**	419 **72**	644 **71**	880 **69**	1187 **67**	1350 **64**	1500 **149**
60	199 **110**	409 **109**	629 **108**	849 **105**	1173 **103**	1319 **101**	1466 **90**
80	189 **148**	399 **146**	621 **145**	839 **142**	1146 **139**	1289 **136**	1432 **123**
100	171 **185**	389 **183**	614 **181**	829 **177**	1132 **174**	1273 **170**	1415 **157**
125	153 **231**	358 **229**	575 **227**	818 **222**	1105 **217**	1243 **212**	1381 **196**

Torque Nm
Rotational speed min^{-1}

Pressure Continuous | Pressure Intermittent

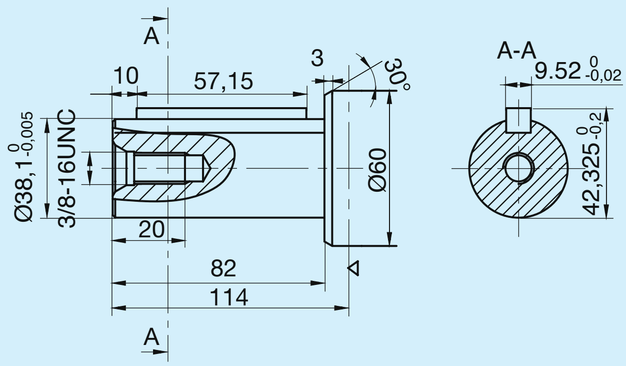
4P1 Ø32 key DIN 6885 A 10x8x50

Max. torque 770 Nm



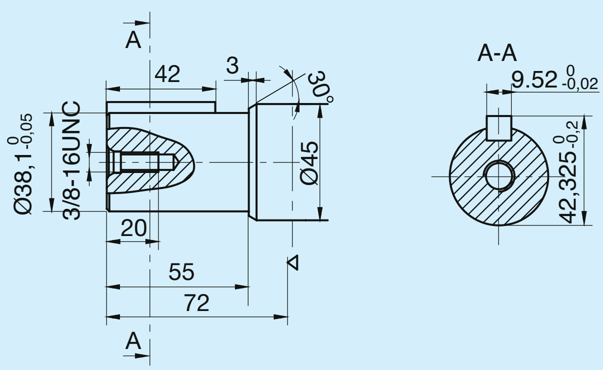
P11 1 1/2" key BS46 3/8"x3/8"x2 1/4"

Max. torque 1300 Nm



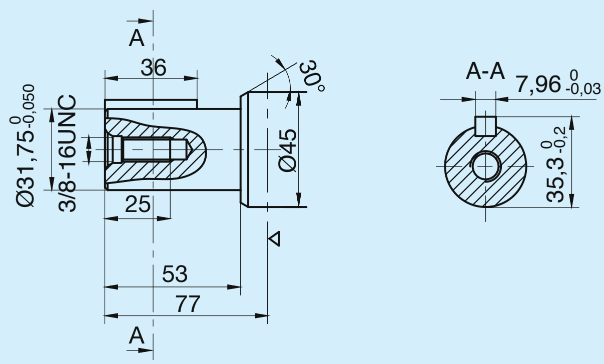
P12 1 1/2" key BS46 3/8"x3/8"x2 1/4"

Max. torque 1300 Nm



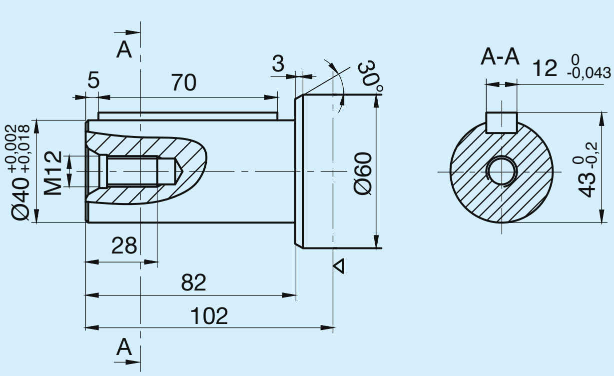
P13 1 1/4" key SAE J744 5/16"x5/16"x1 7/16"

Max. torque 770 Nm



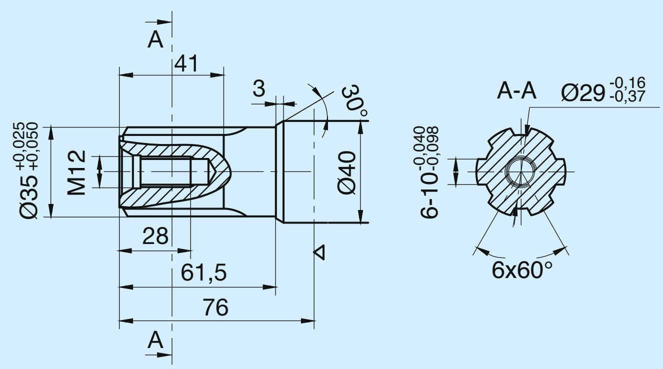
4P3 Ø40 key DIN 6885 A 12x8x70

Max. torque 1377 Nm



4H4 UNI 8953 6x28x34

Max. torque 770 Nm

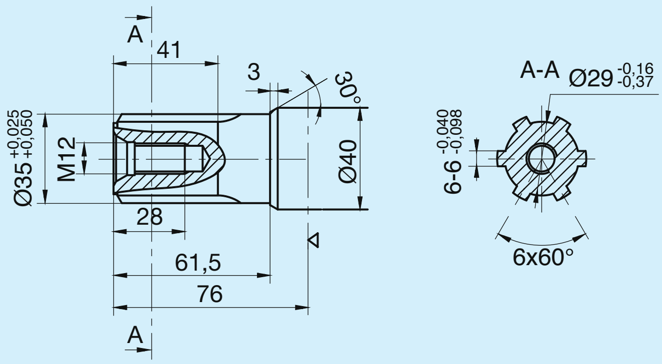


The shafts come with anti-corrosion treatment as standard.

Shaft profile

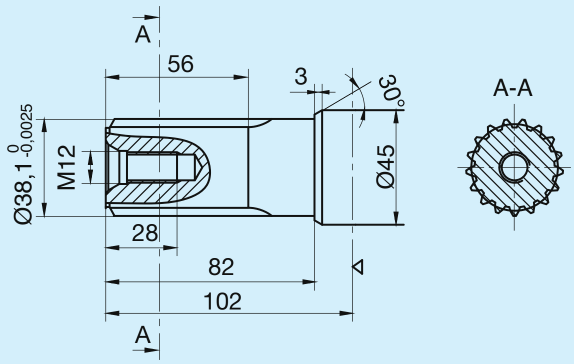
4H5 UNI 8953 6x28x34

Max. torque 770 Nm



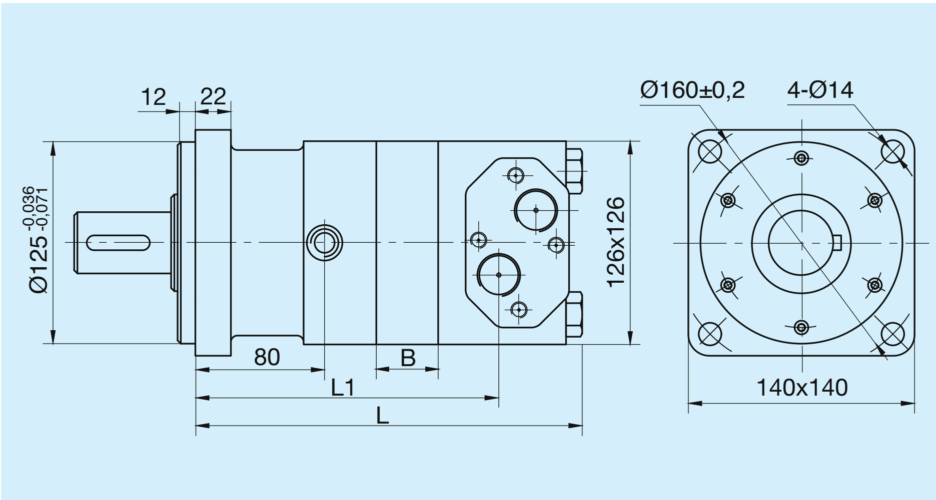
4K3 ANSI-B92.1 1 1/2" DP12/24 30° Z17

Max. torque 1300 Nm



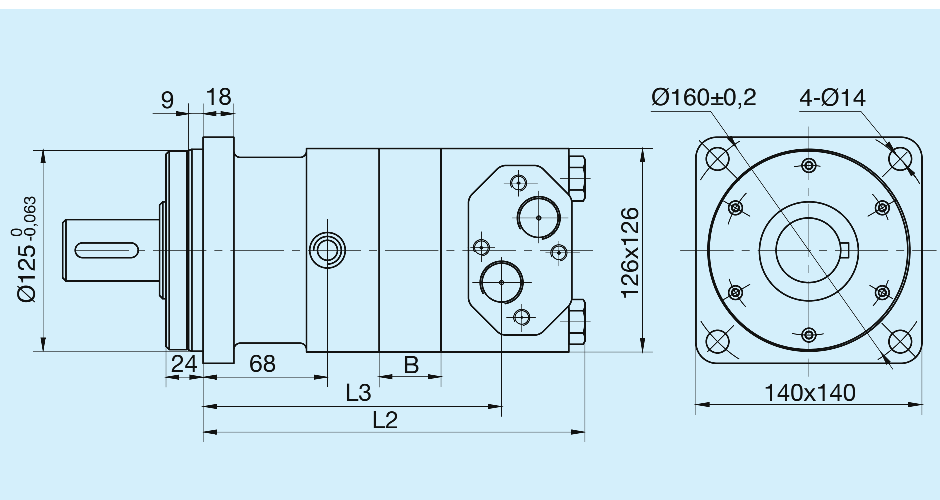
The shafts come with anti-corrosion treatment as standard.

DA Standard D



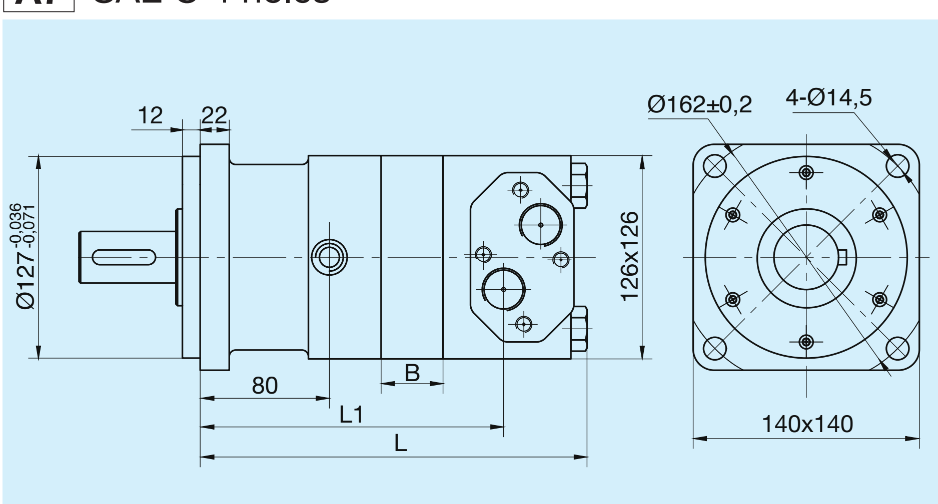
Type	L mm	L1 mm	B mm
4Y 160	213	163	12
4Y 200	217.5	167	16.5
4Y 250	223	173	22
4Y 320	230	180	29
4Y 400	239	189	38
4Y 500	257.5	207	56.5

A4 ISO 3019 Ø125



Type	B mm	L2 mm	L3 mm
4Y 160	12	201	150
4Y 200	16.5	205.5	155
4Y 250	22	211	160
4Y 320	29	218	167
4Y 400	38	227	176
4Y 500	56.5	245.5	195

A7 SAE C 4 holes

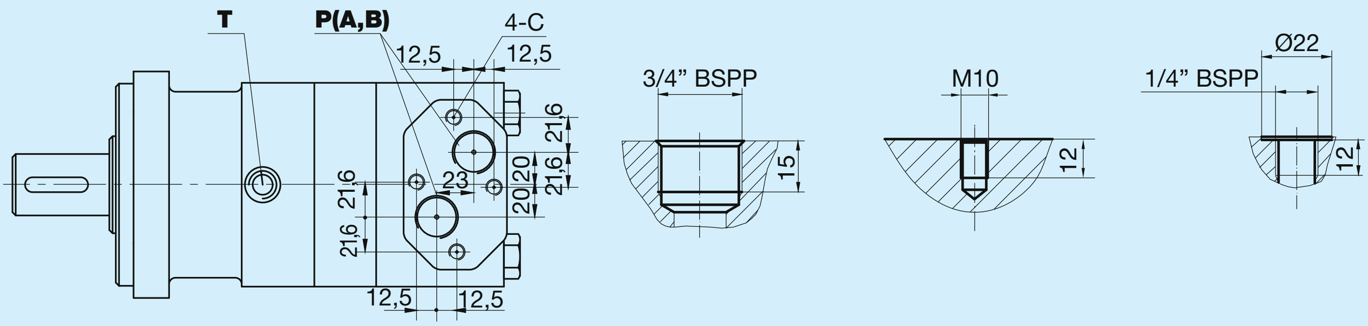


Type	L mm	L1 mm	B mm
4Y 160	213	163	12
4Y 200	217.5	167	16.5
4Y 250	223	173	22
4Y 320	230	180	29
4Y 400	239	189	38
4Y 500	257.5	207	56.5

The flanges come with anti-corrosion treatment as standard.

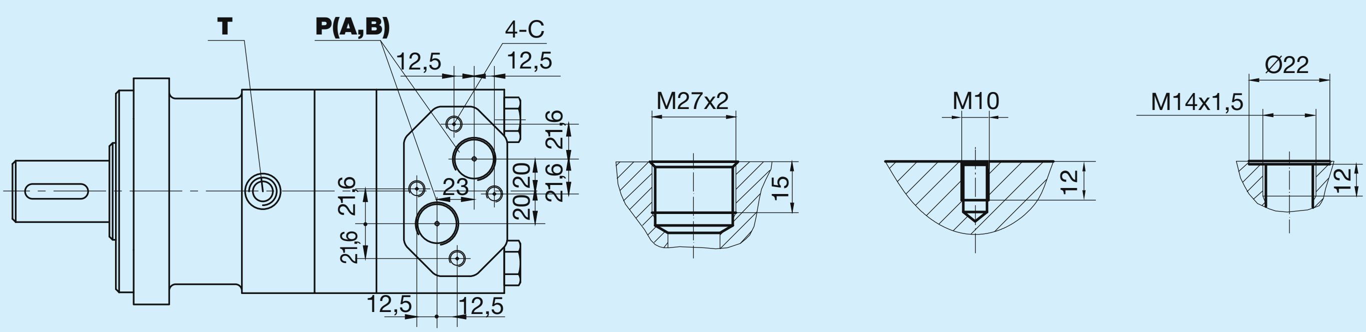
4Y0 With lateral ports

Port A-B	Hole C	Port T
3/4" BSPP	M10	1/4" BSPP



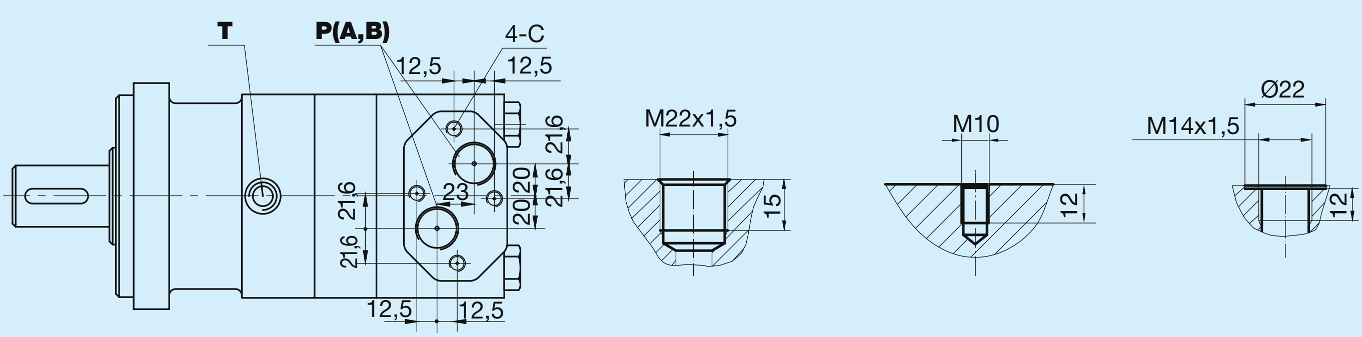
4Y3 With lateral ports

Port A-B	Hole C	Port T
M27x2	M10	M14x1.5



4Y4 With lateral ports

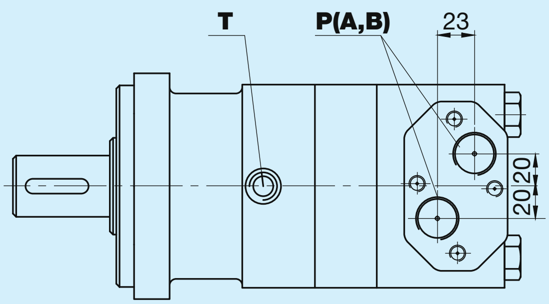
Port A-B	Hole C	Port T
M22x1.5	M10	M14x1.5

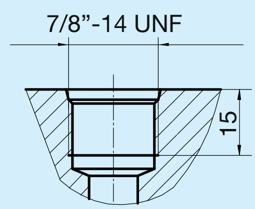


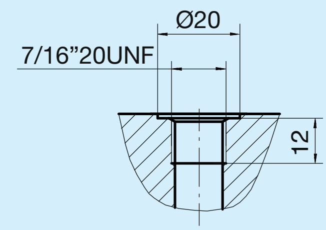
Port combinations

Y48 With lateral ports

	Port A-B	Hole C	Port T
	7/8"-14UNF	---	7/16"-20UNF

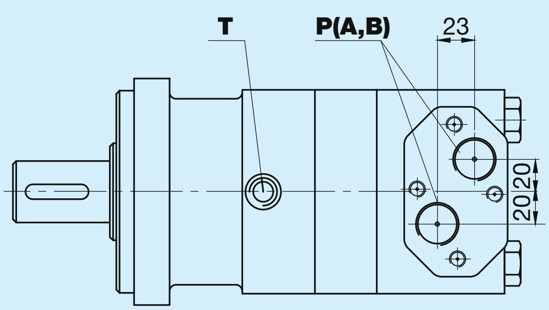


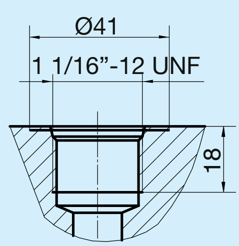


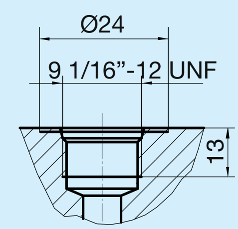


Y41 With lateral ports

	Port A-B	Hole C	Port
	1-1/16"-12UNF	---	9/16"-18UNF

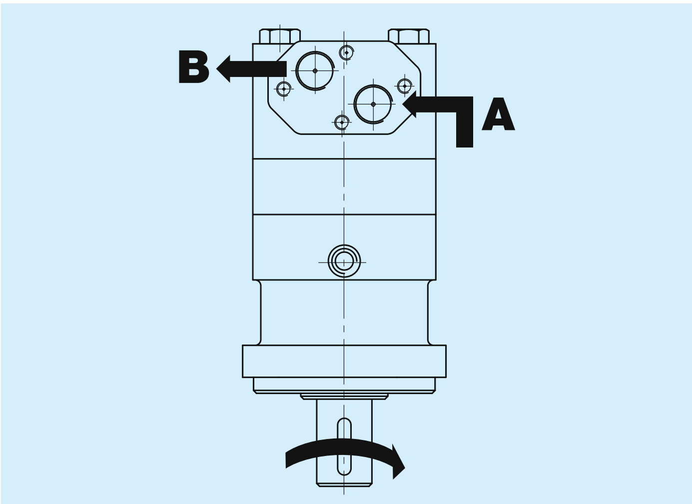






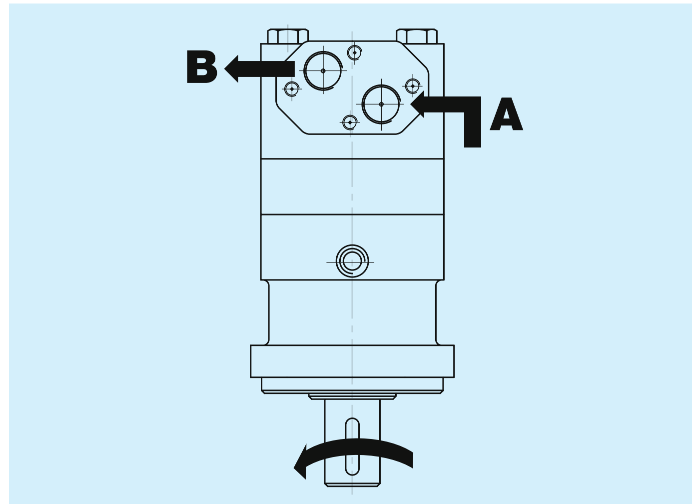
Direction of rotation of shafts

0 Standard



When facing the motor shaft, rotation is:
- Clockwise, when port A is pressurised
- Counterclockwise, when port B is pressurised.

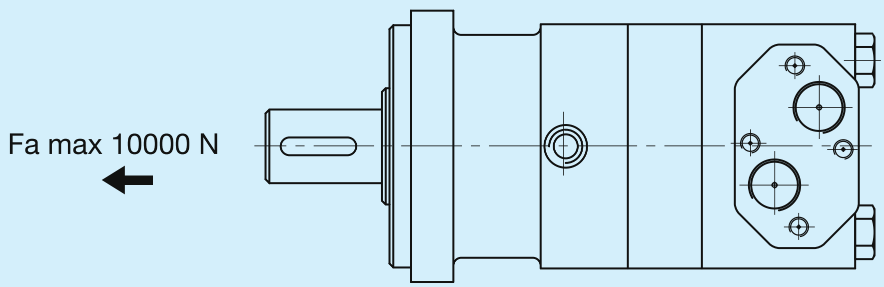
L Reverse



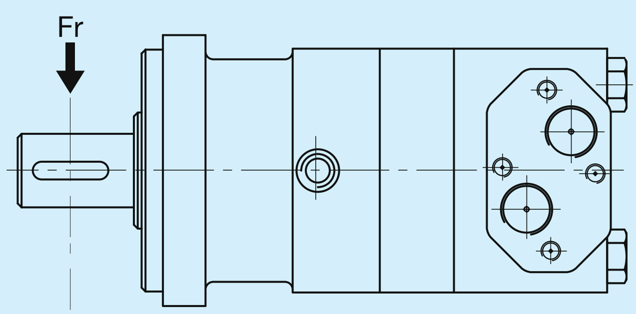
When facing the motor shaft, rotation is:
- Counterclockwise, when port A is pressurised
- Clockwise, when port B is pressurised.

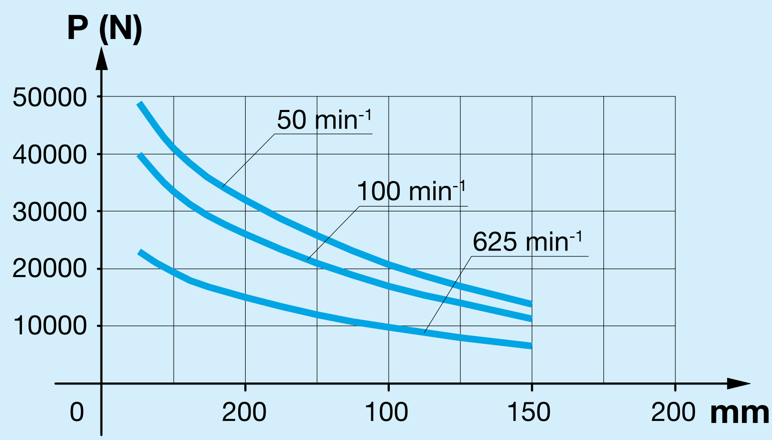
Permitted loads

Axial load



Radial load





Ordering instructions

OZ 4Y	1	2	3	4	5	6

1 Displacement

160	158.8 cm³/rev	**250**	252.2 cm³/rev	**400**	401.6 cm³/rev
200	200.8 cm³/rev	**320**	317.5 cm³/rev	**500**	535.3 cm³/rev

2 Shaft profile

4P1	Cylindrical Ø32 Key DIN6885 A 10x8x50	**P12**	Cylindrical 1 1/2" - Key BS46 3/8"x3/8"x2 1/4"	**4P3**	Cylindrical Ø40 Key DIN 6885 A 12x8x70	**4H5**	Grooved UNI 8953 6x28x34
P11	Cylindrical 1 1/2" - Key BS46 3/8"x3/8"x2 1/4"	**P13**	Cylindrical 1 1/4" - Key SAE J744 5/16"x5/16"x1 7/16"	**4H4**	Grooved UNI 8953 8x32x36 6x28x34	**4K3**	Grooved ANSI B92.1 - 1 1/2" DP12/24 30° Z17

3 Flanges

DA	Standard D	**A4**	ISO 3019 Ø125	**A7**	SAE C 4 holes

4 Thread ports A-B, T

4Y0	BSPP 3/4" Drain port BSPP 1/4"	**4Y4**	M22x1.5 (15) Drain port M14x1.5 7/8"	**Y41**	1" 1/16 - 12UNF Drain port 9/16" - 18UNF
4Y3	M27x2 Drain port M14x1.5	**Y48**	7/8" - 14UNF Drain port 7/16" - 20UNF		

5 Special options

00	None

6 Direction of rotation of shafts

0	Standard	**L**	Reverse