DCE

Equal piston area and stroke
2 independent pistons

- **double piston rotating hydraulic cylinder**
- **up to 70 bar**
- **central bore for air/coolant/oil**
- **stroke control via proximity switch or linear positioning system**

Application/customer benefits

- Actuation of 2 + 2 power chucks type TPT with 2 piston actuation
- Actuation of power chuck with part ejector
- Actuation of power chucks with retractable axial stop/finger chucks with power operated centering fixture

Technical features

- Double piston cylinder with 4 way oil manifold for separate actuation of the 2 cylinders
- Pressure range 8–70 bar
- Horizontal or vertical installation
- Stroke control on each cylinder, safety valves
- Central bore for air, coolant or oil with thread for rotary union
- Mounting from the rear side with bolts
- A 10 µm filter in pressure line is requested
- Use oil HM32 ISO 3448

Standard equipment

Double piston cylinder
Mounting screws
Stroke control on each cylinder
Proximity bracket (without proximity switch)

Ordering example

Double piston cylinder DCE 64-64
or
Double piston cylinder DCE 64-64
with rotary union (optional)

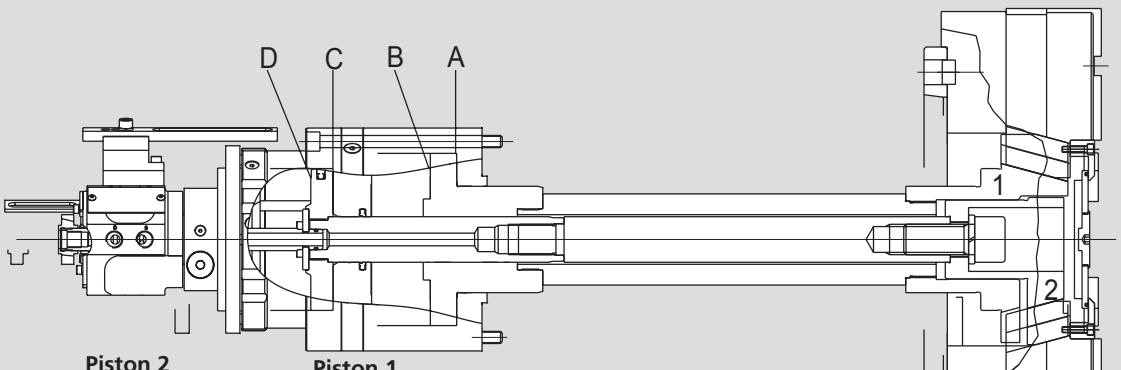
Technical data

SMW-AUTOBLOK Type		DCE 64-64/30-40	DCE 140-140/50-50	DCE 240-240/60-60
Id. No.		**33705212**	**33705217**	**33705221**
Piston strokes	mm	30-40	50-50	60-60
A Piston area	cm²	66	140	238
B Piston area	cm²	63	211	340
C Piston area	cm²	63	138	238
D Piston area	cm²	66	150	254
A piston force max	kN	46	98	118
B piston force max	kN	44	147	118
C piston force max	kN	44	97	118
D piston force max	kN	46	105	127
Max. speed	r.p.m.	5000	4000	3200
Weight	kg	28.6	42.5	116
Moment of inertia	kg·m²	0.074	0.18	1
Operating pressure max.	bar	70	70	60
Operating pressure min.	bar	8	8	8
Oil leakage (*)	dm³/min	3	3	3

* Total at 30 bar / 50 °C
** At max. speed/ oil HM32 ISO 3448

Important: On higher pressure the leakage increases proportionally. On higher oil temperature the leakage increases over proportionally (the use of an oil cooler is recommended).
When designing/checking the hydraulic unit please ask for our data sheets.

Cylinder DCE for 2 + 2 chucks type TPT



Piston 2
for actuation of the centering jaws (2+4) drive 2

Piston 1
for the actuation of the centering/gripping jaws (1+3) drive 1

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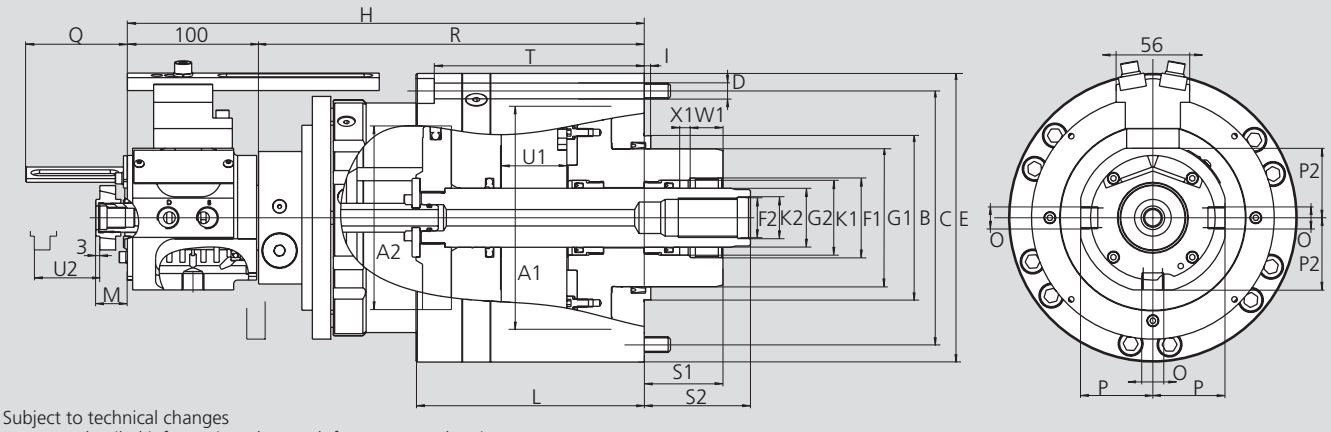

Subject to technical changes
For more detailed information please ask for customer drawing

SMW-AUTOBLOK Type				DCE 64-64/30-40	DCE 140-140/50-50	DCE 240-240/60-60
Piston diameter 1		**A1**	mm	125	170	215
Piston diameter 2		**A2**	mm	95	140	183
Centering rim	h6	**B**	mm	105	125	160
Fixing bolt circle		**C**	mm	145	195	250
Fixing bolts		**D**	mm	6 x M10	6 x M12	6 x M16
		E	mm	174	220	280
Piston rod thread 1		**F1**	mm	M45 x 1.5	M60 x 1.5	M75 x 2
Piston rod thread 2		**F2**	mm	M20 x 1.5	M30	M36
		G1	mm	85	105	125
		G2	mm	30	45	55
		H	mm	362	394	451
		I	mm	5	5	5
		K1	mm	42	57	70
		K2	mm	20.5	31	37
		L	mm	164	174	213
	min.	**M**	mm	31	24	28
		O	inch	G 3/8"	G 3/8"	G 1/2"
		P	mm	55	55	62
		P1	mm	55	55	63
		P2	mm	53	53	63
		Q	mm	77	77	97
		R	mm	262	294	326
	max.	**S1**	mm	40	60	70
	max.	**S2**	mm	76	81	110
		T	mm	151	160	197
Piston stroke cyl. 1		**U1**	mm	30	50	60
Piston stroke cyl. 2		**U2**	mm	40	50	60
		W1	mm	25	25	35
		W2	mm	30	45	50
		X1	mm	10	8	9
		X2	mm	10	10	10

DCE cylinder with optional LPS-X linear stroke control