



Mould Hydraulic Systems

Integrated Hydraulic Cylinders 400 bar



V400CL

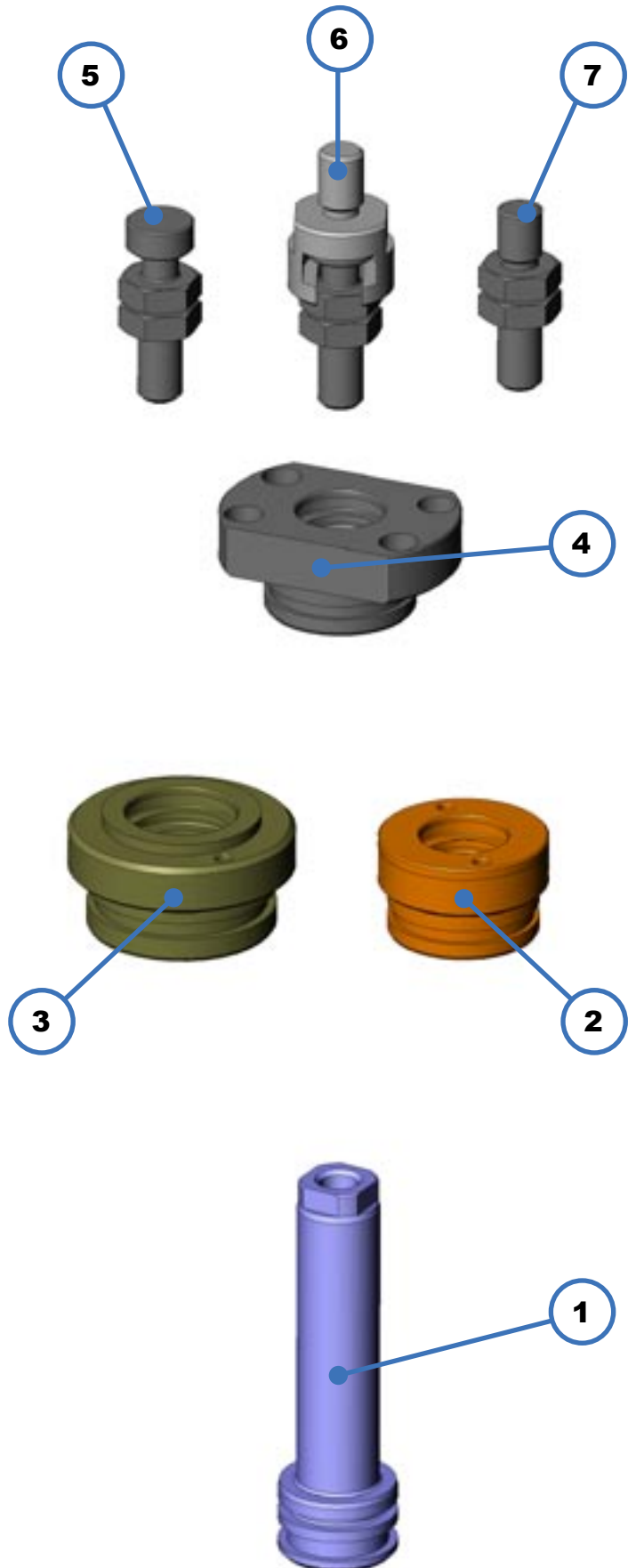
V400CL

Integrated Hydraulic Cylinders 400 bar

General characteristics

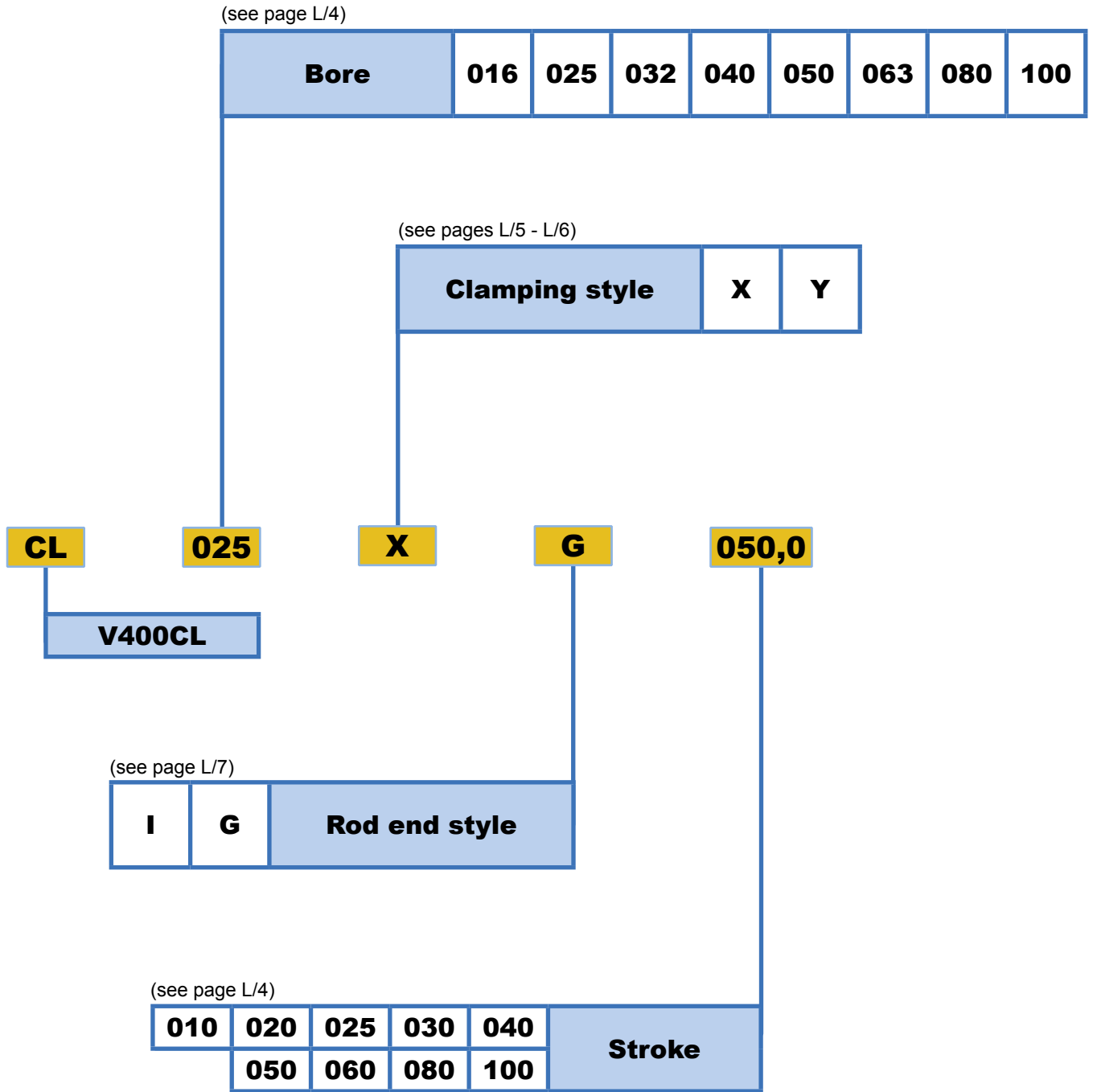
- **Maximum working pressure:** up to 400 bar (for details see page L/5)
- **Bore:** da Ø 16 a Ø 100 mm.
- **Rod diameter:** from 10 to 45 mm.
- **Stroke:** 10 ÷ 100 mm.
- **Working temperature:** from -20°C up to +160°C

- 1 Rod-piston group all in one in hardened steel (58 HRC) with antioxidant covering to facilitate lubrication and sliding (see page L/6).
- 2 Cartridge in cast iron with guide supports in cast iron for a higher mechanical resistance. With low friction seals in PTFE+Bronze and O-rings in Viton®. Version from bores 16÷40 mm. (see page L/5).
- 3 Cartridge in cast iron with guide supports in cast iron for a higher mechanical resistance. With low friction seals in PTFE+Bronze and O-Rings in Viton®. Version from bores 50÷100 mm. (see page L/5).
- 4 Cast iron flanged cartridge as an alternative to the threaded rod cartridge. Seals and screws for clamping on moulds are included (see page L/6).
- 5 Accessory:
Floating joint rod end style with locknut (see accessory catalogue).
- 6 Accessory:
Floating joint rod end with locknut and female floating joint, providing an easier clamping of the cylinder on the mould (see accessory catalogue).
- 7 Accessory:
Male thread rod accessory with locknut (see accessory catalogue).





ORDER COMPILATION SYMBOLS



Integrated Hydraulic Cylinders - 400 bar

BORE AND STROKE (expressed in mm.)

ORDER CODE :

CL

025

050,0

THRUST (P) and TRACTION FORCE (T) in Kg.

∅ Bore	∅ Rod	80 bar		140 bar		200 bar		250 bar		300 bar		400 bar	
		P	T	P	T	P	T	P	T	P	T	P	T
016	10	161	98	281	171	402	245	502	306	603	367	804	490
025	18	393	189	687	331	981	473	1227	591	1472	709	1963	945
032	22	643	339	1125	593	1608	848	2010	1060	2412	1272	3215	1696
040	22	1005	701	1758	1226	2512	1752	3140	2190	3768	2628	5024	3504
050	28	1570	1078	2748	1886	3925	2694	4906	3368	5888	4041	7850	5388
063	28	2493	2000	4362	3500	6231	5000	7789	6251	9347	7501	12463	10001
080	36	4019	3205	7034	5609	10048	8013	12560	10017	15072	12020	20096	16027
100	45	6280	5008	10990	8765	15700	12521	19625	15651	23550	18781	31400	25042

STROKES in mm.

∅ Bore	010,0	020,0	025,0	030,0	040,0	050,0	060,0	080,0	100,0
16	Standard strokes			Standard strokes					
25		Standard strokes				Standard strokes			
32		Standard strokes				Standard strokes			
40			Standard strokes			Standard strokes		Standard strokes	
50			Standard strokes			Standard strokes		Standard strokes	
63				Standard strokes			Standard strokes	Standard strokes	
80					Standard strokes			Standard strokes	
100						Standard strokes			Standard strokes

 Standard strokes

Maximum working pressure and oil flow

∅ Bore	bar	L/min
16	360	2
25	360	3
32	360	5
40	360	8
50	360	11
63	360	19
80	240	32
100	240	48

Maximum applicable mass and speed

∅ Bore	m/s	Kg
16	0,1	2
25	0,1	4
32	0,1	10
40	0,1	17
50	0,1	25
63	0,1	30
80	0,1	40
100	0,1	45

NOTE: For requirements other than these within this catalogue, please contact our technical department.

N.B. The values expressed in the above-mentioned charts are theoretical, as they do not take into account the hydraulic, mechanical and physical efficiency of the system to which they are applied.

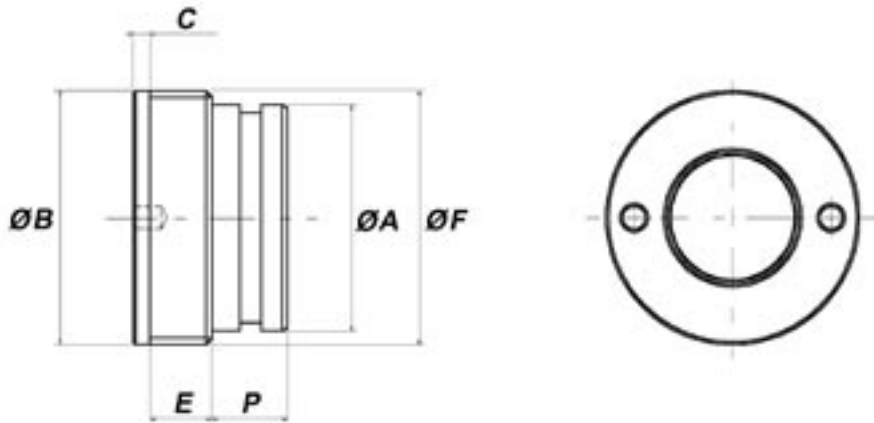
Integrated Hydraulic Cylinders - 400 bar

CLAMPING STYLE

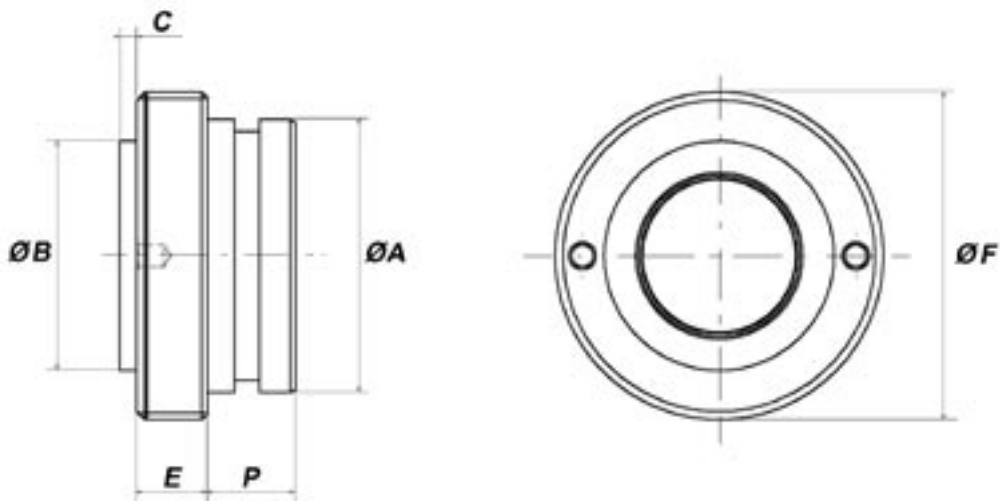
ORDER CODE : **CL**

X

Cartridge from bores 16 ÷ 40 mm.



Cartridge from bores 50 ÷ 100 mm.



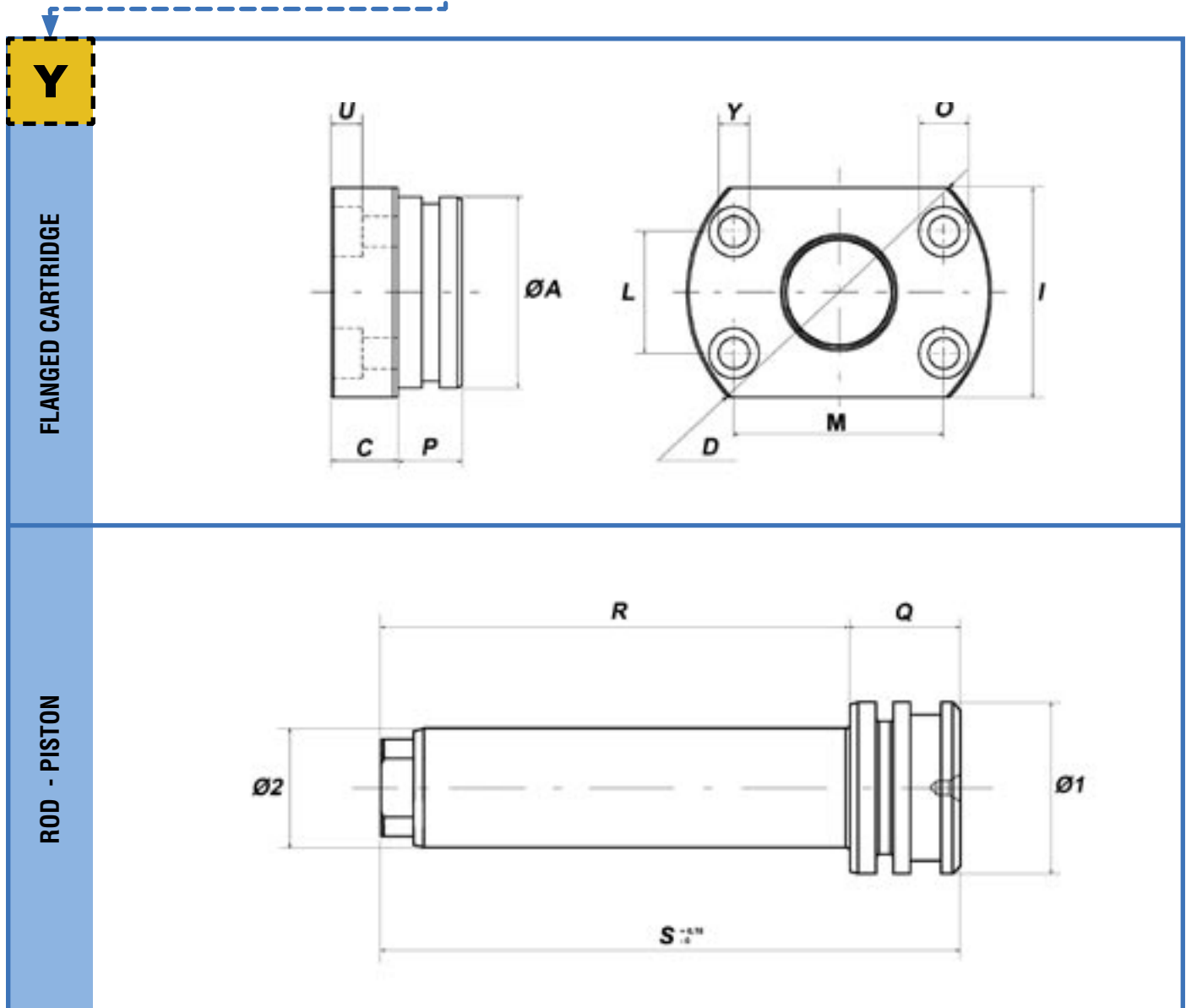
THREADED CARTRIDGE

Ø Bore	Ø Rod	A	B h9	C	E	F	P
16	10	24	30	3	10	M30×2	11,5
25	18	34	38	3	11	M38×2	12,5
32	22	40	45	3	11	M45×2	13,5
40	22	40	45	3	11	M45×2	17,5
50	28	50	42	3,1	12,9	M60×2	16,2
63	28	63	50	3,1	14,9	M75×2,5	14,2
80	36	80	60	3,1	20,9	M95×2,5	16,2
100	45	100	72	3,1	22,9	M115×2,5	19,2

Integrated Hydraulic Cylinders - 400 bar

CLAMPING STYLE

ORDER CODE : **CL** **Y**



Ø1 Bore	Ø2 Rod	Stroke	R	S	A	C	D	I	L	M	O	P	Q	U	Y
16	10	10	40,6	60	24	13	44	28	16,5	28,6	9	11,5	19,4	5,5	5,5
		30	60,6	80											
25	18	20	54,6	75	34	14	54	38	21,5	37,2	9	12,5	20,4	5,5	5,5
		50	84,6	105											
32	22	20	56,6	77	40	14	64	44	25,5	44,2	10,5	13,5	20,4	6,5	6,5
		50	86,6	107											
40	22	25	65,6	88	40	14	64	44	25,5	44,2	10,5	17,5	22,4	6,5	6,5
		50	90,6	113											
		80	120,6	143											
50	28	25	66,3	96	50	16	82	54	32	55,4	13,5	16,2	29,7	8,5	8,5
		50	91,3	121											
		80	121,3	151											
63	28	30	72,8	104	63	18	96	67	39	67,5	13,5	14,2	31,2	8,5	8,5
		60	102,8	134											
		80	122,8	154											
80	36	40	91,3	126	80	24	120	84	49	84,9	16,5	16,2	34,7	10,5	10,5
		80	131,3	166											
100	45	50	107,3	144	100	26	146	104	61	105,7	18,5	19,2	36,7	12,5	12,5
		100	157,3	194											

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ROD END STYLE

ORDER CODE : **CL** **G**

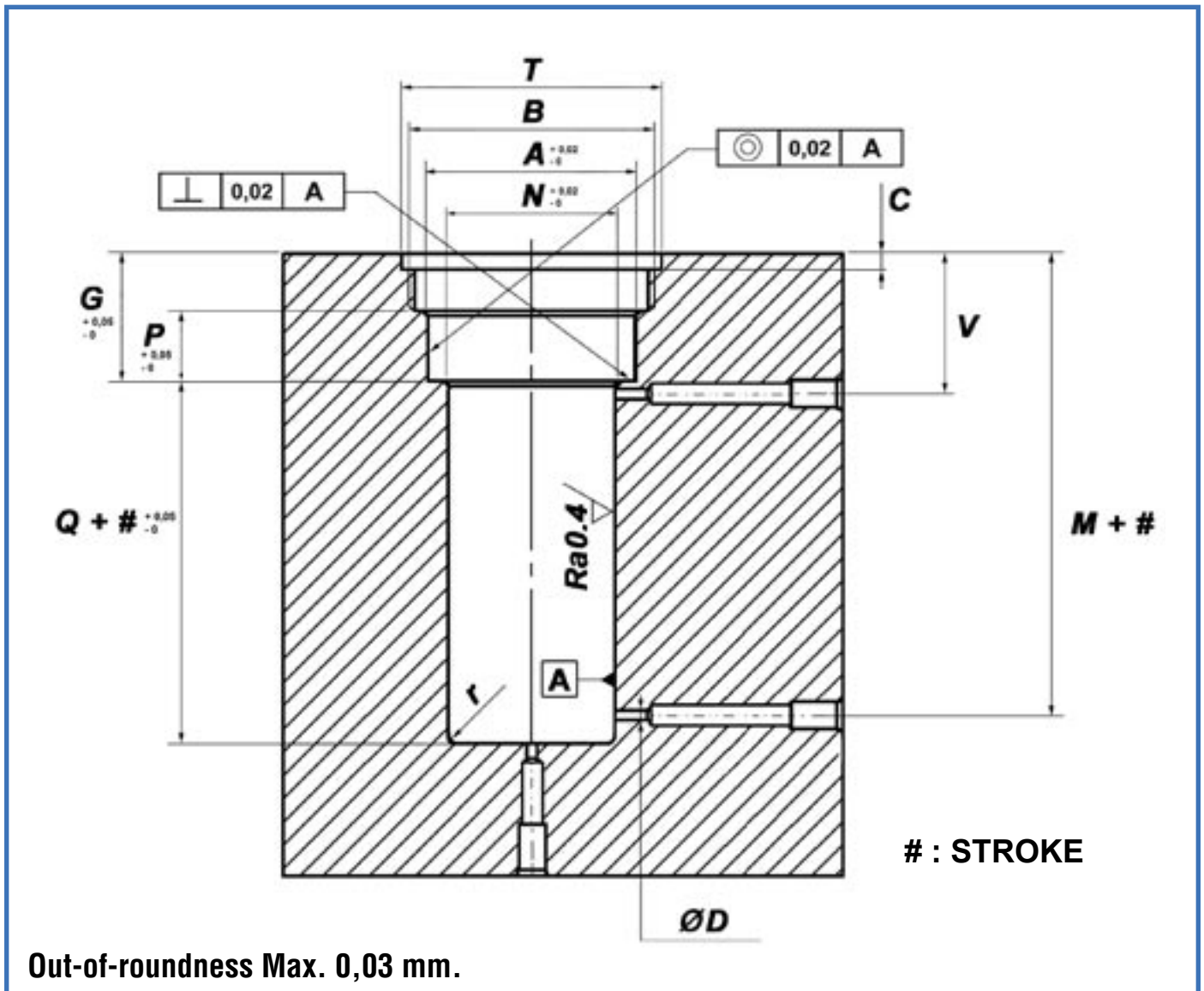
G	STANDARD	
METRIC THREAD (European standard)		
I		
UNF-UNEF THREAD (American standard)		

∅ Bore	∅ Rod	C	D	E	M	P	U	WH (aproximative)
16	10	M6×1	12	4	9,5	8	1/4-28	6
25	18	M10×1,5	20	5	17	15	3/8-24	8
32	22	M12×1,75	20	6	21	18	1/2-20	9
40	22	M14×2	20	6	21	18	9/16-18	9
50	28	M20×2,5	30	6	27	24	3/4-16	9
63	28	M20×2,5	30	7	28	24	3/4-16	10,5
80	36	M27×3	40	8	35	32	1-12	11
100	45	M33×3,5	50	9	44	40	1-1/4-12	12

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THREADED CARTRIDGE HOUSING

Working in the mold from bores 16 ÷ 40 mm.

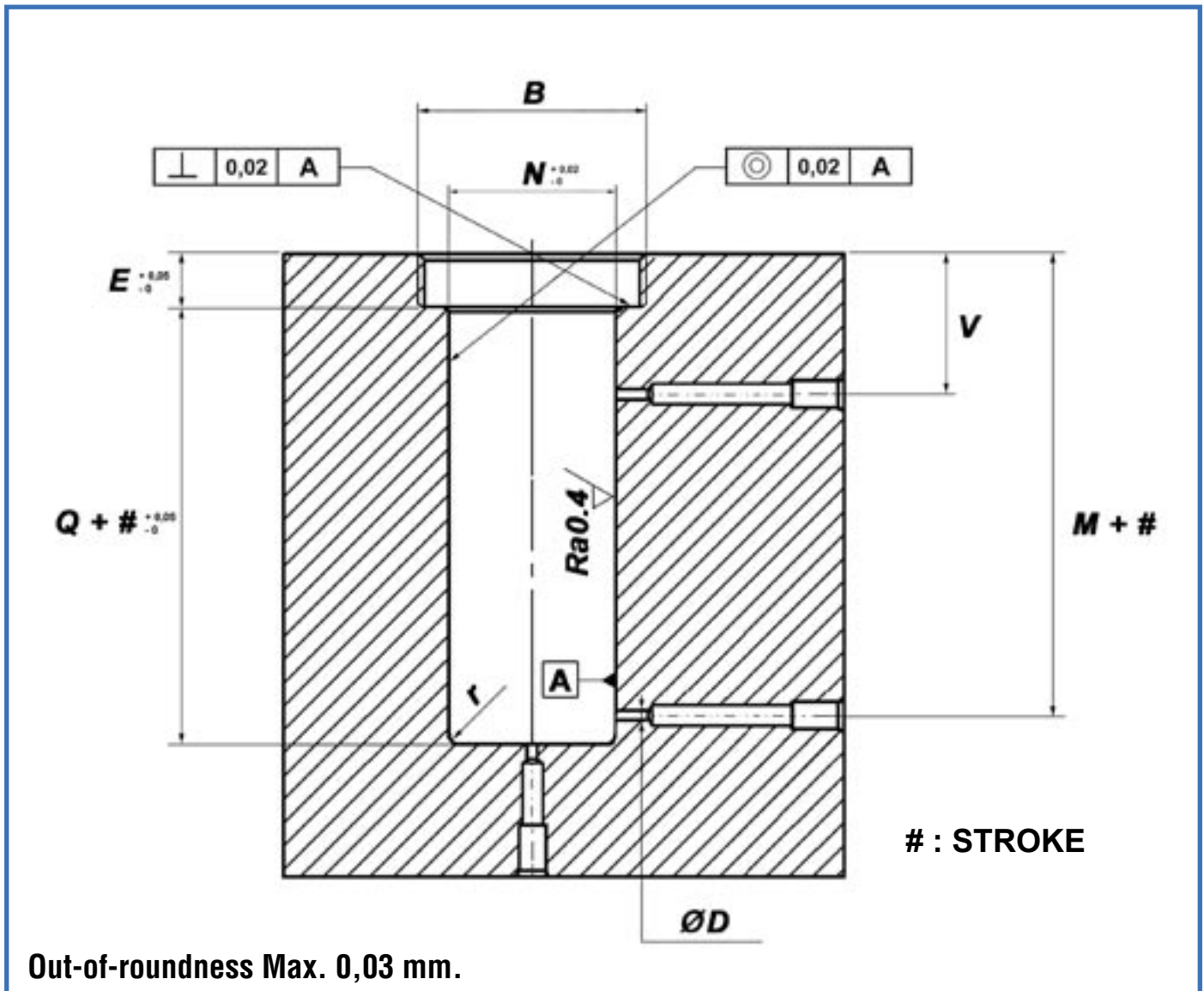


Ø Bore	Ø Rod	A	B	C	D	G	M	N	P	Q	r	T	V
16	10	24	M30×2	3	1,5	24,5	41,5	16	11,5	19,5	1,5	30	26,5
25	18	34	M38×2	3	2	26,5	44	25	12,5	20,5	1,5	38	28,5
32	22	40	M45×2	3	2	27,5	45,5	32	13,5	20,5	2	45	29,5
40	22	40	M45×2	3	2	31,5	50,5	40	17,5	22,5	2	45	31,5

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THREADED CARTRIDGE HOUSING

Working in the mold from bores 50 ÷ 100 mm.

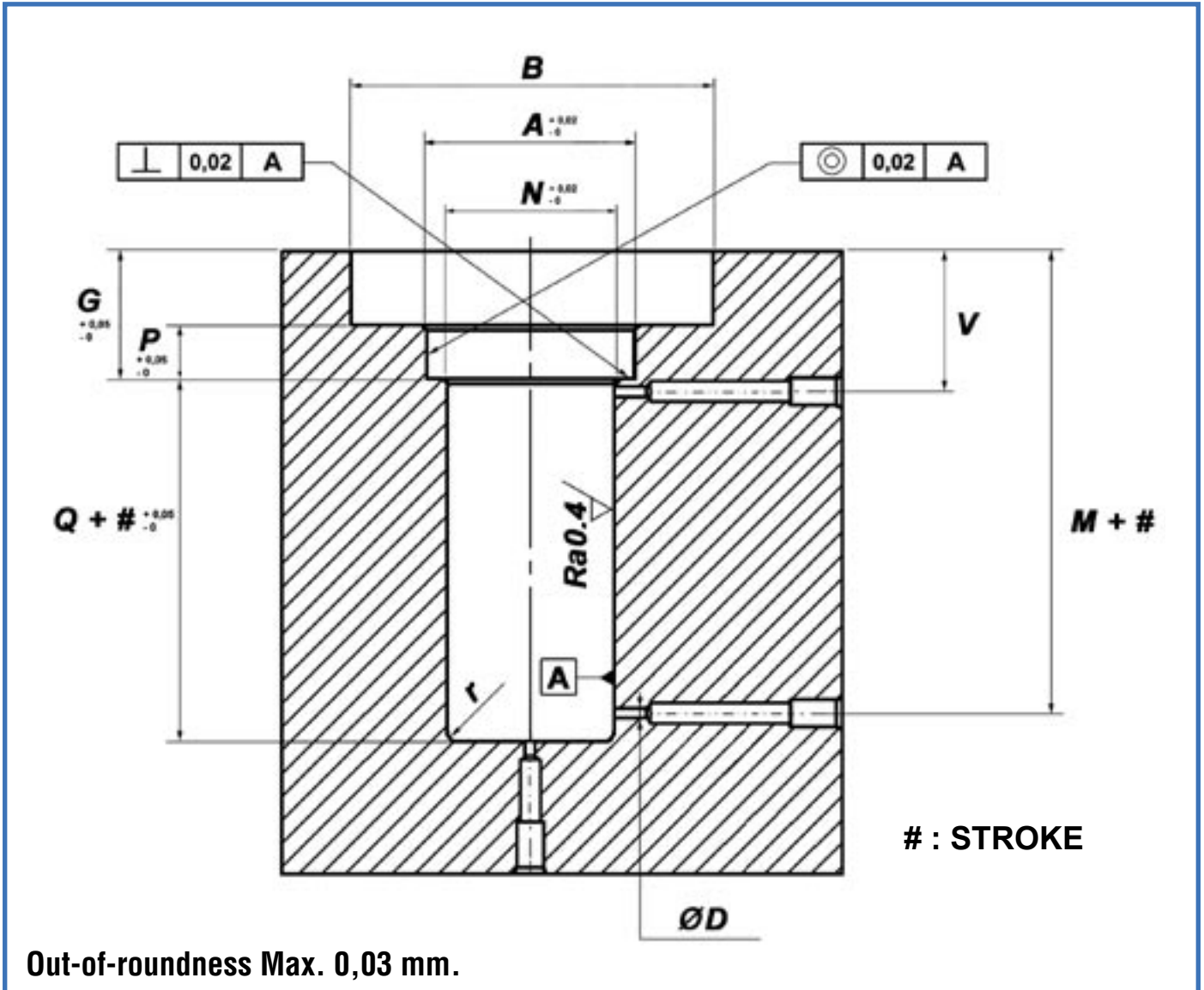


Ø Bore	Ø Rod	B	D	E	M	N	Q	r	V
50	28	M60×2	2,5	16	58	50	29,8	2	32
63	28	M75×2,5	3	18	59,5	63	31,3	2	32
80	36	M95×2,5	3,5	24	70	80	34,8	2,5	39
100	45	M115×2,5	4	26	77	100	36,8	2,5	45

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FLANGED CARTRIDGE HOUSING

Working in the mold



Ø Alesaggio	Ø Stelo	A	B	D	G	M	N	P	Q	r	V
16	10	24	46	1,5	24,5	41,5	16	11,5	19,5	1,5	26,5
25	18	34	56	2	26,5	44	25	12,5	20,5	1,5	28,5
32	22	40	66	2	27,5	45,5	32	13,5	20,5	2	29,5
40	22	40	66	2	31,5	50,5	40	17,5	22,5	2	31,5
50	28	50	84	2,5	32,2	58	50	16,2	29,8	2	32
63	28	63	98	3	32,2	59,5	63	14,2	31,3	2	32
80	36	80	122	3,5	40,2	70	80	16,2	34,8	2,5	39
100	45	100	148	4	45,2	77	100	19,2	36,8	2,5	45

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EXAMPLE

Housing of the components in the mould and determination of the space need for non standard strokes.

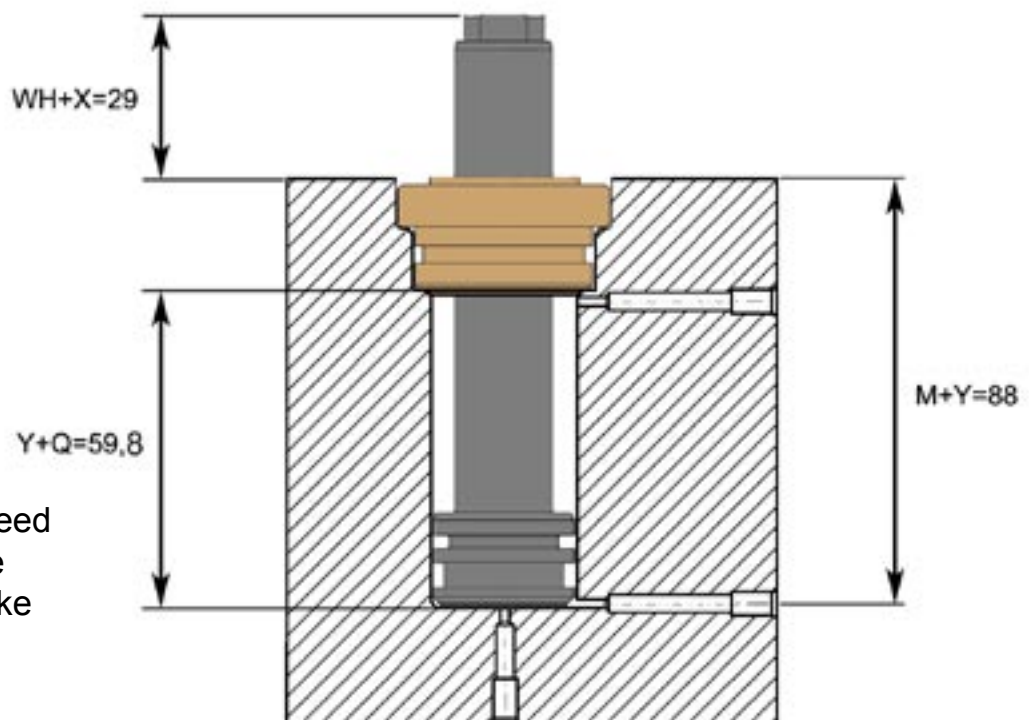
Piston diameter chosen: 50 mm.
Stroke needed: 30 mm.

STROKE SELECTION

Select from the standard stroke table below, the higher stroke value immediately following the needed one.

∅ Bore	10	20	25	30	40	50	60	80	100
16									
25									
32									
40									
50									
63									
80									
100									

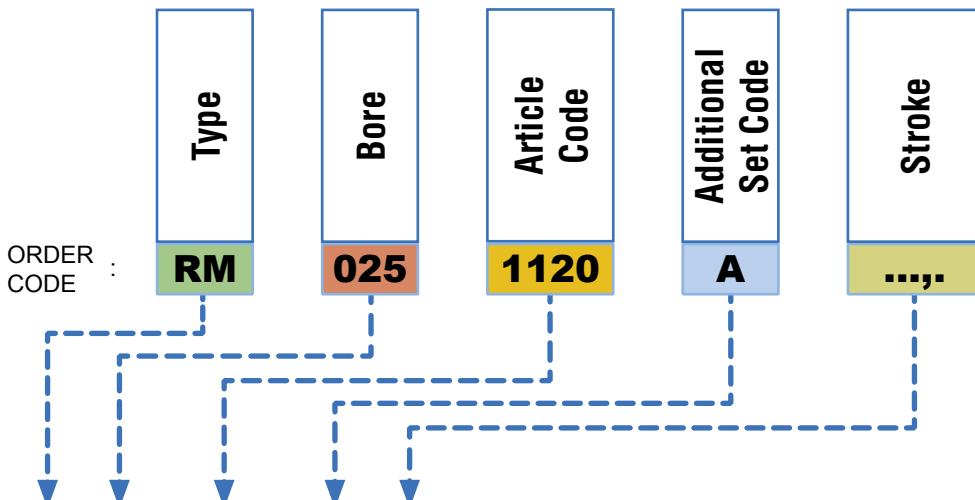
Extra space need (X) = Z - Y



X = extra space need
Y = needed stroke
Z = standard stroke
WH = 9
Q = 29,8
M = 58

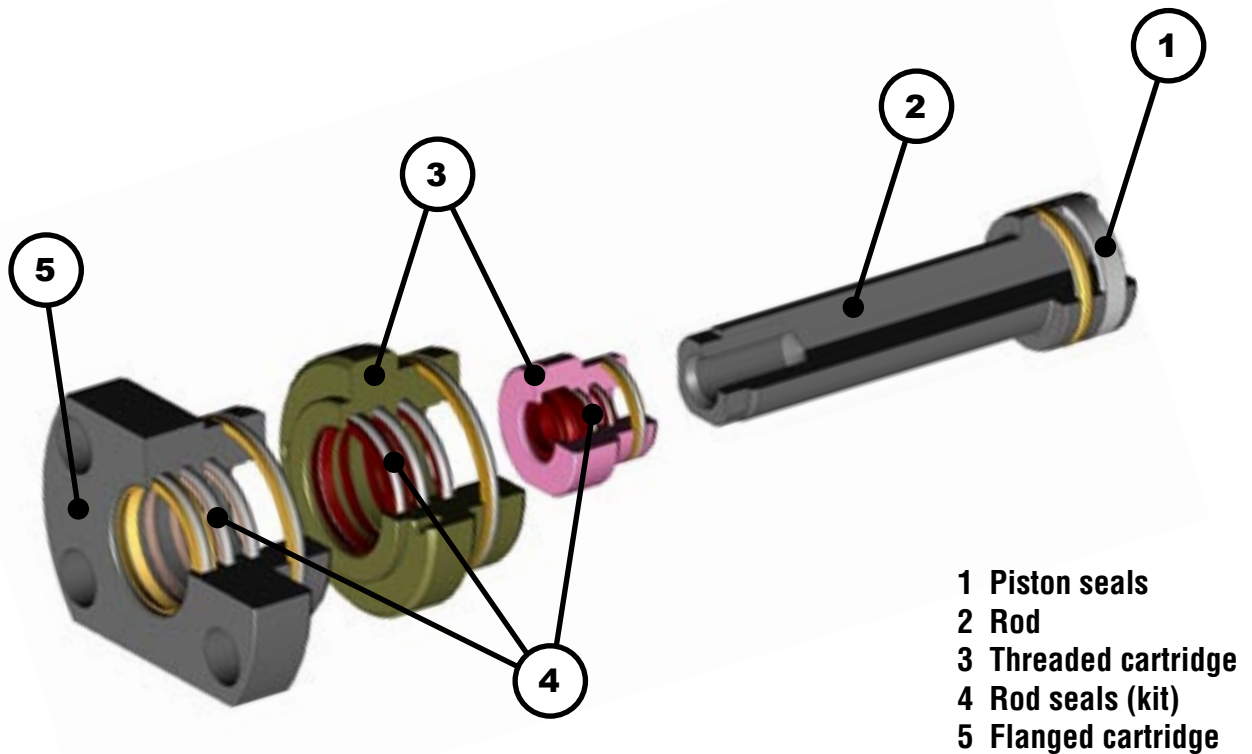
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SPARE PARTS



RM	...	1120	A	...	Piston/rod with rod end type G + seals	1+2
RM	...	1121	A	...	Piston/rod with rod end type I + seals	1+2
RM	...	6020	A		Rod cartridge seals	1

RM	...	0310			Threaded rod cartridge without seals	3
RL	...	0320			Flanged rod cartridge without seals	5
RM	...	0310	A		Threaded rod cartridge with seals	3+4
RL	...	0320	A		Flanged rod cartridge with seals	5+4
RM	...	6010	A		Rod cartridge seals	4



Mould Hydraulic Systems

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