

Cylinder selection guide

Operating pressure at kg/sq. cm				Theoretical forces (at mechanical efficiency = 100%)							
				15		25		35		50	
Piston dia mm	Rod dia mm	Piston area sq. cm	Rod area sq. cm	Push kgf	Pull kgf	Push kgf	Pull kgf	Push kgf	Pull kgf	Push kgf	Pull kgf
40	16	12.57	2.01	188.52	158.36	314.2	263.93	439.88	369.50	628.4	527.86
50	16	19.64	2.01	294.56	264.40	490.94	440.67	687.31	616.93	981.875	881.33
63	25	31.18	4.91	467.65	394.01	779.41	656.68	1091.18	919.35	1558.82	1313.36
80	25	50.27	4.91	754.08	680.44	1256.8	1134.07	1759.52	1587.69	2513.6	2268.13
100	35	78.55	9.62	1178.25	1033.91	1963.75	1723.19	2749.25	2412.47	3927.5	3446.38
125	45	122.73	15.91	1841.02	1602.42	3068.36	2670.7	4295.70	3738.98	6136.72	5341.4
150	45	176.74	15.91	2651.06	2412.47	4418.44	4020.78	6185.81	5629.09	8836.88	8041.56

Ordering details of H50 series hydraulic cylinders

	H50			
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Series _____

Cylinder bore _____

Stroke length _____

Mounting style _____

Refer to dimension charts for code

Example

H50 series hydraulic cylinder with bore 50mm, stroke 100mm, mounting front flange will be specified as

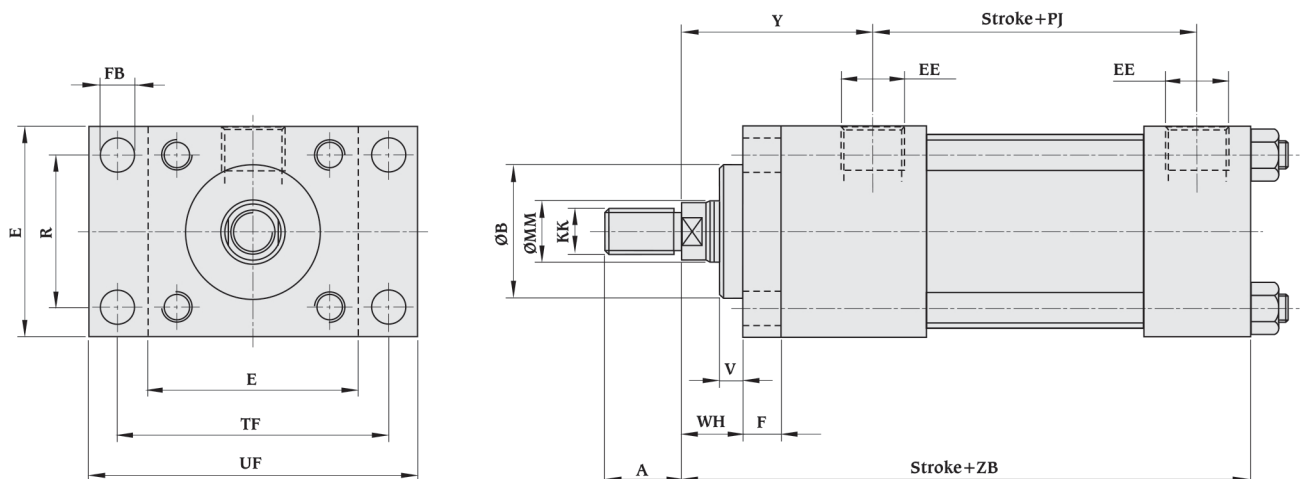
H50	50	100	FF	
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All dimensions are in millimeters unless otherwise stated.

Features and specifications

- 9 Standard mounting styles
- Bore sizes : 40mm to 150mm
- Piston rods : 16mm to 45mm
- Strokes : available in any practical stroke length
- Maximum working pressure 50 bar
- Single rod designs
- Non-cushioned
- Temperature range : -20°C to +80°C (standard)
- Standard fluid : Mineral oil, DIN 51524 (HL, HLP)

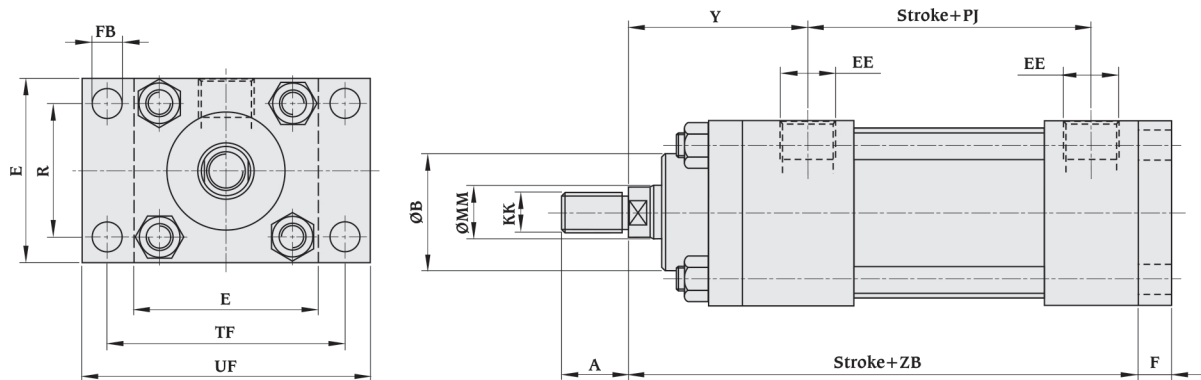
Mounting style Front flange (FF)



Bore	A	B	E	EE	F	FB	KK	MM	PJ	R	TF	UF	V	WH	Y	ZB
Ø40	20	28	54	3/8"BSP	10	7	M12x1.25P	16	67	36	70	86	6	16	54	134
Ø50	20	28	63	3/8"BSP	10	9	M12x1.25P	16	67	46	86	105	6	16	54	134
Ø63	28	38	76	3/8"BSP	12	9	M20x1.5P	25	70	56	98	117	8	21	63	146
Ø80	28	38	95	1/2"BSP	16	11	M20x1.5P	25	83	70	119	142	6	21	68	167
Ø100	40	50	114	1/2"BSP	16	13	M27x2P	35	85	85	138	164	6	25	73	174
Ø125	50	60	140	1/2"BSP	18	13	M33x2P	45	87	104	168	194	10	29	79	182
Ø150	50	60	165	3/4"BSP	20	17	M33x2P	45	99	125	198	230	10	29	82	200

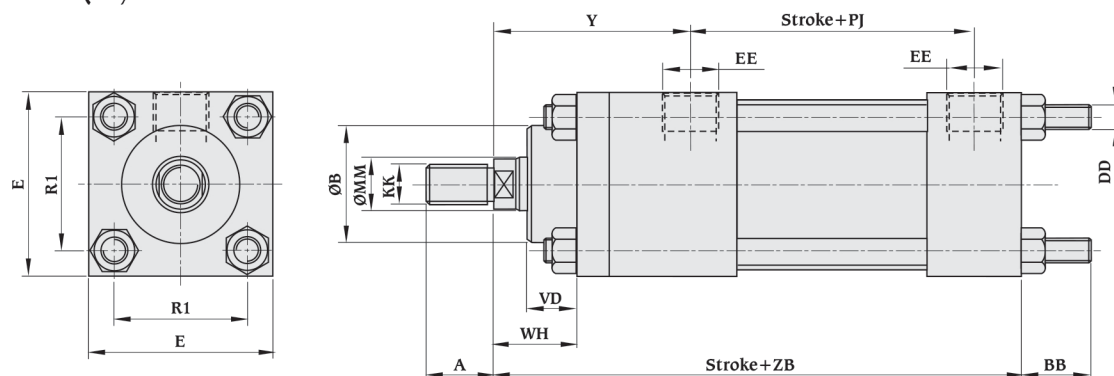
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Mounting style Rear flange (RF)



Bore	A	B	E	EE	F	FB	KK	MM	PJ	R	TF	UF	Y	ZB
Ø40	20	28	54	3/8"BSP	10	7	M12x1.25P	16	67	36	70	86	54	134
Ø50	20	28	63	3/8"BSP	10	9	M12x1.25P	16	67	46	86	105	54	134
Ø63	28	38	76	3/8"BSP	12	9	M20x1.5P	25	70	56	98	117	63	146
Ø80	28	38	95	1/2"BSP	16	11	M20x1.5P	25	83	70	119	142	68	167
Ø100	40	50	114	1/2"BSP	16	13	M27x2P	35	85	85	138	164	73	174
Ø125	50	60	140	1/2"BSP	18	13	M33x2P	45	87	104	168	194	79	182
Ø150	50	60	165	3/4"BSP	20	17	M33x2P	45	99	125	198	230	82	200

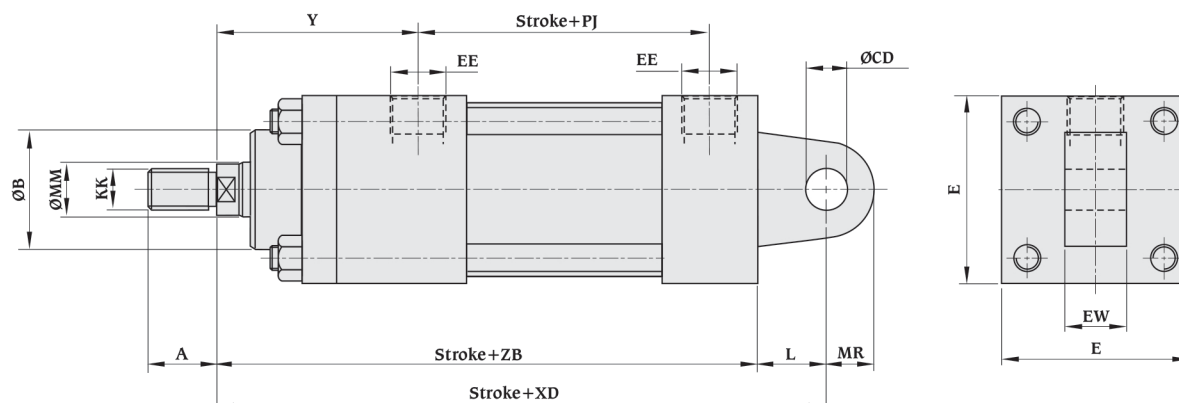
Mounting style Tie rod extended (TE)



Bore	A	B	BB	DD	E	EE	KK	MM	PJ	R1	VD	WH	Y	ZB
Ø40	20	28	25	M6x1P	54	3/8"BSP	M12x1.25P	16	67	40	6	16	54	134
Ø50	20	28	28	M8x1.25P	63	3/8"BSP	M12x1.25P	16	67	48	6	16	54	134
Ø63	28	38	28	M8x1.25P	76	3/8"BSP	M20x1.5P	25	70	58	8	21	63	146
Ø80	28	38	35	M10x1.5P	95	1/2"BSP	M20x1.5P	25	83	74	6	21	68	167
Ø100	40	50	45	M12x1.75P	114	1/2"BSP	M27x2P	35	85	81	6	25	73	174
Ø125	50	60	45	M12x1.75P	140	1/2"BSP	M33x2P	45	87	110	10	29	79	182
Ø150	50	60	55	M16x2P	165	3/4"BSP	M33x2P	45	99	130	10	29	82	200

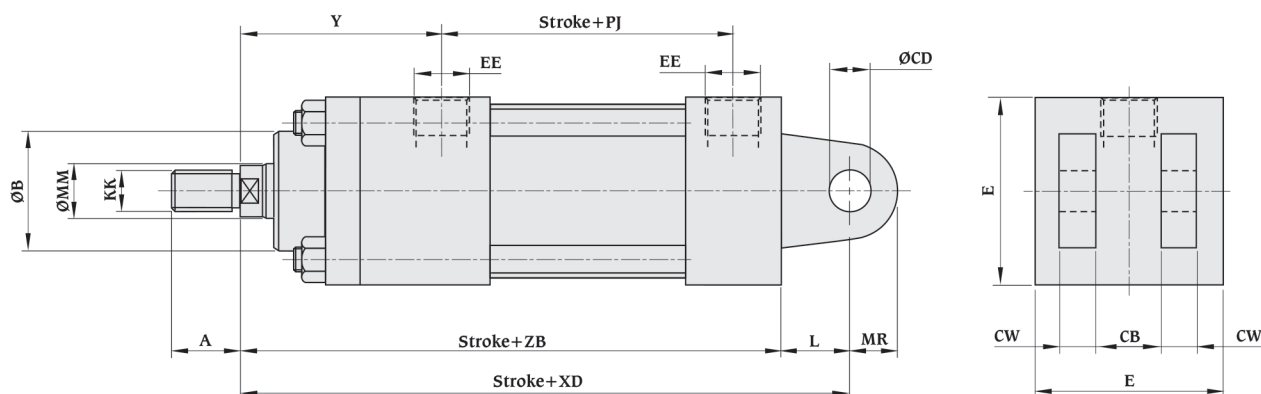
All dimensions are in millimeters unless otherwise stated.

Mounting style Rear eye (RP 3)



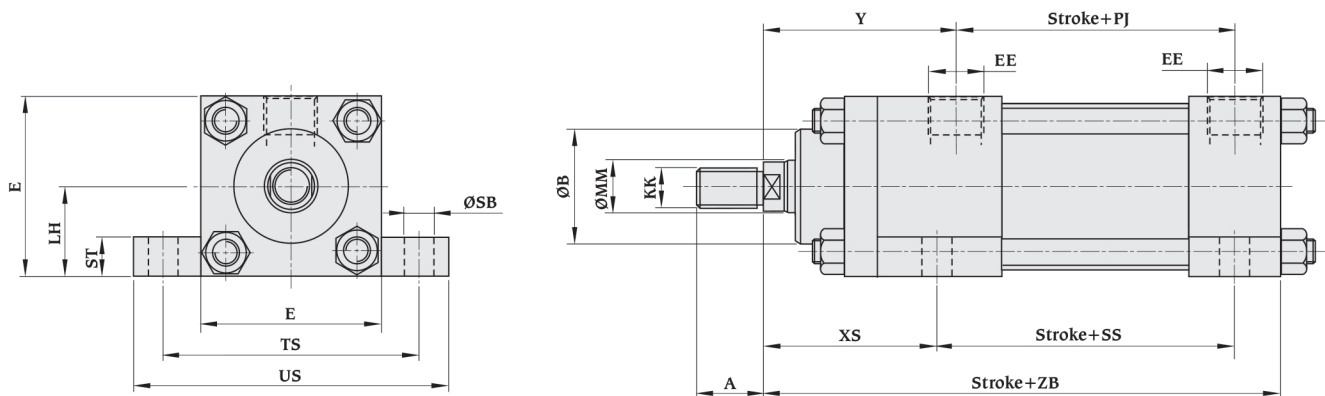
Bore	A	B	CD	E	EE	EW	KK	L	MM	MR	PJ	XD	Y	ZB
Ø40	20	28	12	54	3/8"BSP	19	M12x1.25P	19	16	16	67	153	54	134
Ø50	20	28	12	63	3/8"BSP	19	M12x1.25P	19	16	16	67	153	54	134
Ø63	28	38	12	76	3/8"BSP	19	M20x1.5P	19	25	16	70	165	63	146
Ø80	28	38	20	95	1/2"BSP	32	M20x1.5P	32	25	24	83	199	68	167
Ø100	40	50	20	114	1/2"BSP	32	M27x2P	32	35	24	85	206	73	174
Ø125	50	60	20	140	1/2"BSP	32	M33x2P	32	45	24	87	214	79	182
Ø150	50	60	25	165	3/4"BSP	38	M33x2P	38	45	30	99	238	82	200

Mounting style Rear clevis (RP 1)

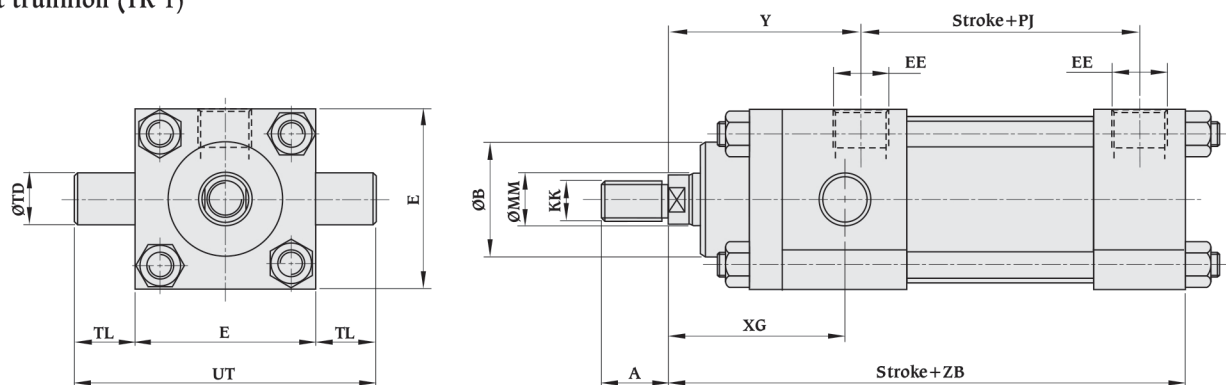


Bore	A	B	CB	CD	CW	E	EE	KK	L	MM	MR	PJ	XD	Y	ZB
Ø40	20	28	19	12	12	54	3/8"BSP	M12x1.25P	19	16	16	67	153	54	134
Ø50	20	28	19	12	12	63	3/8"BSP	M12x1.25P	19	16	16	67	153	54	134
Ø63	28	38	19	12	12	76	3/8"BSP	M20x1.5P	19	25	16	70	165	63	146
Ø80	28	38	32	20	16	95	1/2"BSP	M20x1.5P	32	25	24	83	199	68	167
Ø100	40	50	32	20	16	114	1/2"BSP	M27x2P	32	35	24	85	206	73	174
Ø125	50	60	32	20	16	140	1/2"BSP	M33x2P	32	45	24	87	214	79	182
Ø150	50	60	38	25	20	165	3/4"BSP	M33x2P	38	45	30	99	238	82	200

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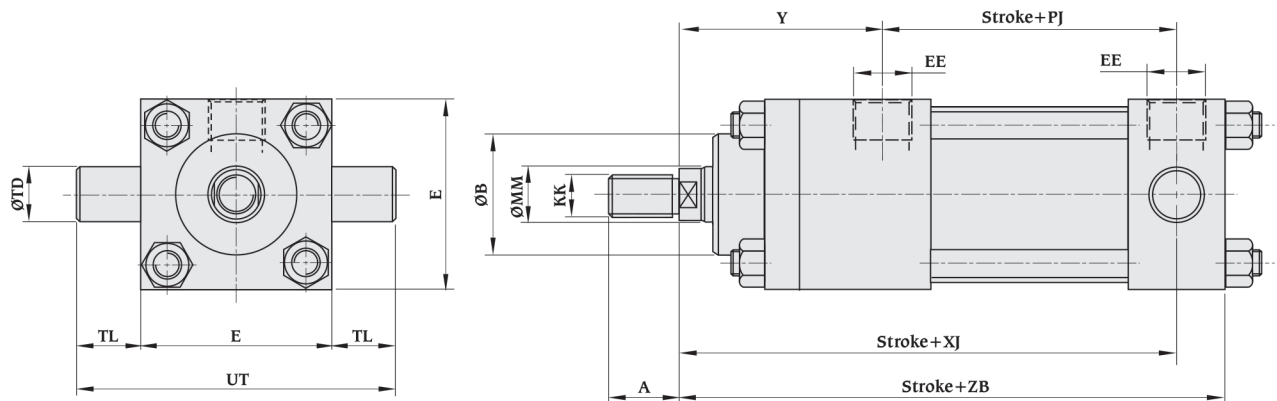
Mounting style
Side lug (SL)


Bore	A	B	E	EE	KK	LH	MM	PJ	SB	SS	ST	TS	US	XS	Y	ZB
Ø40	20	28	54	3/8"BSP	M12x1.25P	27	16	67	11	76	13	74	94	46	54	134
Ø50	20	28	63	3/8"BSP	M12x1.25P	31.5	16	67	11	76	13	83	103	46	54	134
Ø63	28	38	76	3/8"BSP	M20x1.5P	38	25	70	11	80	13	95	114	54	63	146
Ø80	28	38	95	1/2"BSP	M20x1.5P	47.5	25	83	13	91	20	121	147	60	68	167
Ø100	40	50	114	1/2"BSP	M27x2P	57	35	85	13	93	20	140	165	65	73	174
Ø125	50	60	140	1/2"BSP	M33x2P	70	45	87	17	95	25	175	210	71	79	182
Ø150	50	60	165	3/4"BSP	M33x2P	82.5	45	99	21	105	25	205	245	76	82	200

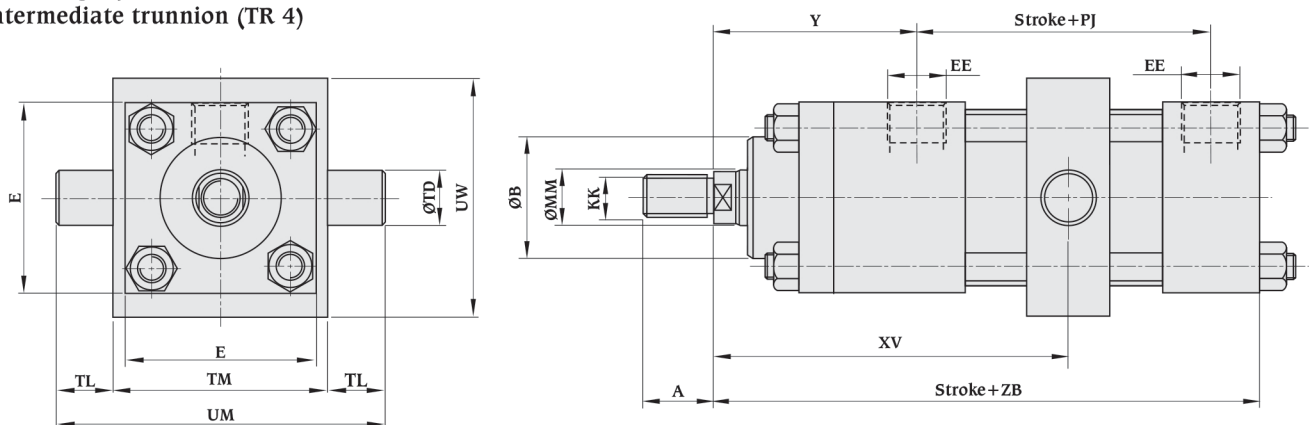
Mounting style
Front trunnion (TR 1)


Bore	A	B	E	EE	KK	MM	PJ	TD	TL	UT	XG	Y	ZB
Ø40	20	28	54	3/8"BSP	M12x1.25P	16	67	16	16	86	46	54	134
Ø50	20	28	63	3/8"BSP	M12x1.25P	16	67	20	20	103	46	54	134
Ø63	28	38	76	3/8"BSP	M20x1.5P	25	70	20	20	116	54	63	146
Ø80	28	38	95	1/2"BSP	M20x1.5P	25	83	25	25	145	60	68	167
Ø100	40	50	114	1/2"BSP	M27x2P	35	85	25	25	164	65	73	174
Ø125	50	60	140	1/2"BSP	M33x2P	45	87	28	28	196	71	79	182
Ø150	50	60	165	3/4"BSP	M33x2P	45	99	30	30	225	76	82	200

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Mounting style**Rear trunnion (TR 2)**

Bore	A	B	E	EE	KK	MM	PJ	TD	TL	UT	XJ	Y	ZB
Ø40	20	28	54	3/8"BSP	M12x1.25P	16	67	16	16	86	122	54	134
Ø50	20	28	63	3/8"BSP	M12x1.25P	16	67	20	20	103	122	54	134
Ø63	28	38	76	3/8"BSP	M20x1.5P	25	70	20	20	116	134	63	146
Ø80	28	38	95	1/2"BSP	M20x1.5P	25	83	25	25	145	151	68	167
Ø100	40	50	114	1/2"BSP	M27x2P	35	85	25	25	164	158	73	174
Ø125	50	60	140	1/2"BSP	M33x2P	45	87	28	28	196	166	79	182
Ø150	50	60	165	3/4"BSP	M33x2P	45	99	30	30	225	181	82	200

Mounting style**Intermediate trunnion (TR 4)**

Bore	A	B	E	EE	KK	MM	PJ	TD	TL	TM	UM	UW	XV	Y	ZB
Ø40	20	28	54	3/8"BSP	M12x1.25P	16	67	16	16	63	95	63	Dimensions to be specified by customer	54	134
Ø50	20	28	63	3/8"BSP	M12x1.25P	16	67	20	20	76	116	76		54	134
Ø63	28	38	76	3/8"BSP	M20x1.5P	25	70	20	20	89	129	89		63	146
Ø80	28	38	95	1/2"BSP	M20x1.5P	25	83	25	25	114	164	114		68	167
Ø100	40	50	114	1/2"BSP	M27x2P	35	85	25	25	128	178	128		73	174
Ø125	50	60	140	1/2"BSP	M33x2P	45	87	28	28	158	214	158		79	182
Ø150	50	60	165	3/4"BSP	M33x2P	45	99	30	30	194	254	194		82	200

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