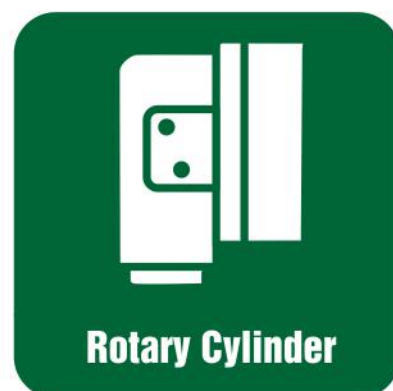


ROTARY CYLINDERS



Open-Center Cylinders

SH	SH (Standard Mega-Bore Short-Body Open-Center Hydraulic Cylinder)	86.
	SHL (Mega-Bore Short-Body Long-Stroke Open-Center Hydraulic Cylinder)	87.
SYH	SYH (Standard Open-Center Hydraulic Cylinder)	88.
	SYHL (Open-Center Long-Stroke Hydraulic Cylinder)	89.

Closed-Center Cylinders

Y-R	Y-R (Standard Closed-Center Hydraulic Cylinder)	90.
	Y-RE (Closed-Center Hydraulic Cylinder with Proximity Bracket)	91.
	YH-RE (Ultra-Compact Closed-Center Hydraulic Cylinder with Proximity Bracket)	93.
	YS-RA (Ultra-Compact Closed-Center Hydraulic Cylinder with Proximity Bracket & Built in Rotary Union)	94.
DY	DY (Double-Piston Hydraulic Cylinder)	95.
	DYV (Double-Piston Hydraulic Cylinder with Lock Valve)	96.

Pneumatic Cylinder

	AY-R (Closed-Center Pneumatic Cylinder)	97.
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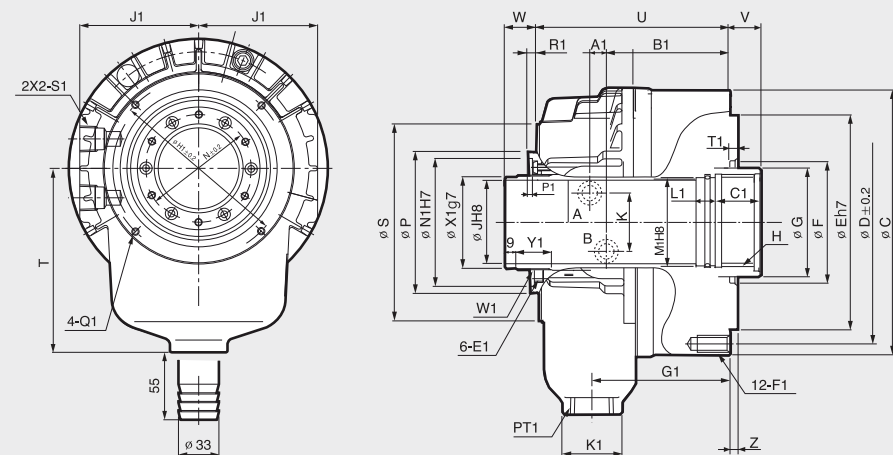
SH

Standard Mega-Bore Short-Body Open-Center Hydraulic Cylinder



- Mega-Bore Short-body high-speed open-centered hydraulic cylinder with built-in lock and relief valves

HYDRAULIC CYLINDER



Dimensions

	ΦC	ΦD	ΦE	ΦF	ΦG	Hmax.	ΦJ	K	N	ΦP	ΦS	T	U	Vmax.	Vmin.	Wmax.	Wmin.	Z	A1	B1
SH-10036	135	115	100	65	48	M42x1.5	36	30	55	73	104	115	130	15	3	37	25	5	9	90
SH-13046	165	130	100	80	65	M55x2.0	46	40	64	85	116	120	142	15	0	40	25	5	8.5	103
SH-15052	190	170	130	85	70	M60x2.0	52	40	73	96	135	130	136	22	0	47	25	5	9	97.5
SH-17068	210	190	160	120	85	M75x2.0	68	48	88	111	154	150	155	25	0	50	25	5	10	108
SH-18077	218	190	160	120	95	M85x2.0	77	48	98	121	164	165	167	25	0	50	25	5	10	119.5
SH-19082	223	190	160	120	100	M90x2.0	82	58	103	126	175	166	174	25	0	44	19	5	11.5	122
SH-21010	263	225	200	160	125	M115x2.0	106	48	142	157.8	205	195	199.7	35	0	60	25	5	14	136.5
SH-25011	310	275	230	166	140	M130x2.0	117.5	46	138	170	230	107.5	231	18	-5	48	25	6	19	150

	C1	E1	F1DP'	G1	H1	J1	K1	L1	ΦM1	ΦN1	P1	Q1	R1	S1	T1	W1	ΦX1	Y1
SH-10036	25	M5	M10x17	93.5	96	73	47	15	38	64	4	M5x7	5	PT 1/2	6	M44x1.5	42	30
SH-13046	30	M6	M10x20	111	105	82	47	15	48	76	4	M5x6	6	PT 1/2	6	M52x1.5	50	24
SH-15052	30	M6	M10x20	101	118	92	47	15	55	85	4	M6x7	7	PT 1/2	5.5	M58x1.5	56	20
SH-17068	35	M6	M10x20	113	96	97	47	15	70	100	4	M6x10	7	PT 1/2	5	M74x1.5	72.5	26
SH-18077	35	M6	M10x20	125	155	102	47	15	80	108	4	M6x10	7	PT 1/2	5	M84x2.0	81	26
SH-19082	35	M6	M12x20	129.5	160	105	47	15	85	113	4	M6x10	7	PT 1/2	6	M89x2.0	86	26
SH-21010	35	M6	M12x20	151	190	120	47	15	110	128	4	M6x10	7	PT 1/2	6	M119x2.0	116	38
SH-25011	45	M6	M16x32	163.5	206	140	55	20	123	150	5.5	M6x12	7.5	PT 1/2	6	M124x2.0	122	29

Specifications

Type	Available I.D.	Cylinder Dia.	Piston Stroke	Piston Force		Max. Operating Pressure	Max. r.p.m.	GD ²	Weight	Total Leakage
				Push [kN(kgf)]	Pull [kN(kgf)]					
SH-10036	36	105	12	25(2549)	24(2447)	4.0 (40.8)	8000	0.43(0.044)	8.4	3.0
SH-13046	46	135	15	42.3 (4285)	38.1 (3865)	4.0 (40.8)	7000	0.2 (0.021)	10	3.0
SH-15052	52	156	22	60 (6118)	56 (5710)	4.0 (40.8)	6200	0.44 (0.045)	14	3.9
SH-17068	68	170	25	63 (6531)	59.8 (6060)	4.0 (40.8)	5600	0.65 (0.067)	16.5	4.0
SH-18077	77	185	25	75.3 (7632)	69.6(7087)	4.0 (40.8)	5000	0.83 (0.084)	18	4.2
SH-19082	82	185	25	78.1 (7924)	72.5(7530)	4.0 (40.8)	4800	0.95 (0.097)	25	4.5
SH-21010	106	215	35	91.8(9357)	87.8(8952)	4.0 (40.8)	3500	1.84(0.188)	37	6.0
SH-25011	117.5	255	23	132 (13390)	121 (12305)	4.0 (40.8)	3000	1.9 (0.193)	50	7.0

※ Maximum turning speed is based upon actual measurement.
※ Specifications are subject to change without notice.

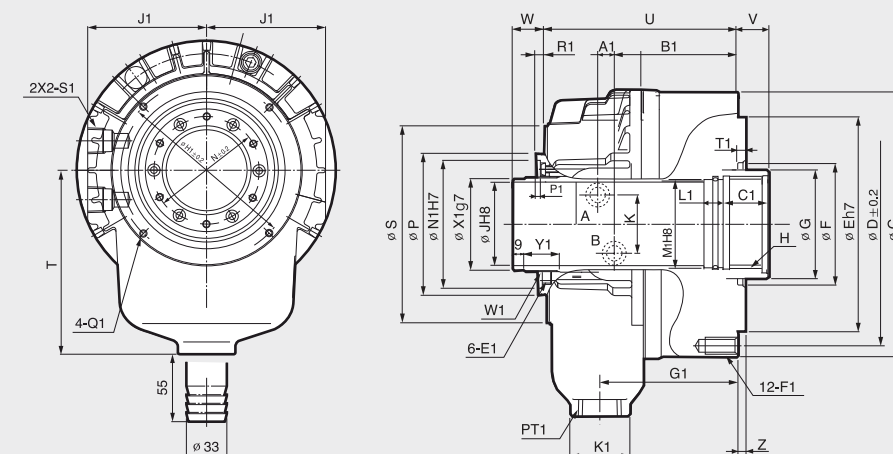
SHL

Mega-Bore Short-Body Long-Stroke Open-Center Hydraulic Cylinder



- Long-stroke short-body high-speed open-centered hydraulic cylinder with built-in lock and relief valves

HYDRAULIC CYLINDER



Dimensions

	ΦC	ΦD	ΦE	ΦF	ΦG	Hmax.	ΦJ	K	N	ΦP	ΦS	T	U	Vmax.	Vmin.	Wmax.	Wmin.	Z	A1	B1
SHL-17068	210	190	160	120	85	M75x2.0	68	48	88	111	154	150	175	35	-5	65	25	5	10	128
SHL-18077	218	190	160	120	95	M85x2.0	77	48	98	121	164	165	182	35	-5	65	25	5	10	134.5
SHL-25011	310	275	230	166	140	M130x2.0	117.5	46	138	170	230	107.5	258	46	-4	87	37	6	19	176.5
SHL-39024	450	420	320	280	265	M250x3.0	240	30	268	310	370	340	302.5	50	-1	76	25	6	22	199

	C1	E1	F1DP'	G1	H1	J1	K1	L1	ΦM1	ΦN1	P1	Q1	R1	S1	T1	W1	ΦX1	Y1
SHL-17068	35	M6	M10x20	133	145	97	47	15	71	100	4	M6x10	7	PT 1/2	5	M74x1.5	72.5	26
SHL-18077	35	M6	M10x20	140	155	102	47	15	80	108	4	M6x10	7	PT 1/2	5	M84x2.0	81	26
SHL-25011	45	M6	M16x32	190.5	206	140	55	120	123	150	5.5	M6x12	7.5	PT 1/2	6	M124x2.0	122	29
SHL-39024	45	M6	M16x40	215	350	215	75	20	243	284	5.5	M6x12	7.5	PT 1/2	6	M253x2.0	249	38

Specifications

Type	Available I.D.	Cylinder Dia.	Piston Stroke	Piston Force		Max. Operating Pressure	Max. r.p.m.	GD ²	Weight	Total Leakage
				Push [kN(kgf)]	Pull [kN(kgf)]					
SHL-17068	68	170	40	63(6531)	59.8(6060)	4.0(40.8)	5600	0.69(0.070)	17.8	4
SHL-18077	77	185	40	75.3(7632)	69.6(7087)	4.0(40.8)	5000	0.86(0.088)	18.5	4.2
SHL-25011	117.5	255	50	132(13390)	121(12305)	4.0(40.8)	3000	1.9(0.193)	54	7
SHL-39024	240	390	51	152.5(15570)	138.7(14152)	2.5(25)	1500	39.64(4.045)	140	22

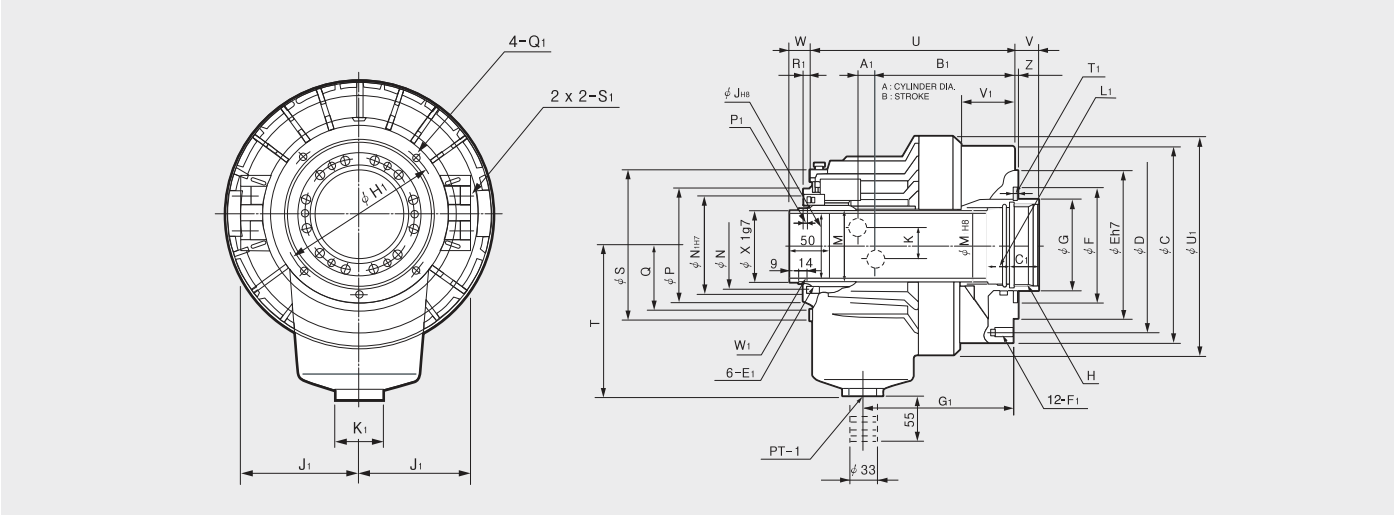
※ Maximum turning speed is based upon actual measurement.
※ Specifications are subject to change without notice.

SYH

Standard Open-Center Hydraulic Cylinder

- High-speed open-centered hydraulic cylinder with built-in lock and relief valves

HYDRAULIC CYLINDER



Dimensions

	ΦC	ΦD	ΦE	ΦF	ΦG	Hmax.	ΦJ	K	ΦM	ΦN	ΦP	Q	ΦS	T	U	Vmax.	Vmin.	Wmax.	Wmin.	Z	A1
SYH-1036	135	115	100	65	48	M42x1.5	36	30	44.6	55	73	45	104	115	156	15	0	40	25	5	11
SYH-1246	155	130	100	80	65	M52x2.0	46	36	52.9	64	85	51.5	118	115	184	15	0	40	25	5	11.5
SYH-1552	190	170	130	85	70	M60x2.0	52	36	59.6	73	96	57	137	130	191	22	0	47	25	5	12
SYH-1877	215	190	160	120	95	M85x2.0	77	36	84.6	98	121	70	166	160	230	25	0	50	25	5	17.5
SYH-2091	240	215	180	140	110	M100x2.0	91	34	99.6	108	138	79	182	185	253	30	0	55	25	5	21
	B1	C1	E1	F1	G1	H1	J1	K1	L1	M1	ΦN1	P1	Q1	R1	S1	T1	ΦU1	V1	W1	ΦX1	
SYH-1036	102.5	25	M5x11	6-M10x17	98	88	73	47	15	38	64	4	M5x10	5	PT3/8	6	158	28	M44x1.5	42	
SYH-1246	126.5	30	M6x9	12-M10x20	135	98	76	47	15	50	76	4	M5x10	6	PT1/2	6	200	46	M52x1.5	50	
SYH-1552	136	30	M6x9	12-M10x20	145	110	86	47	15	55	85	4	M6x12	7	PT1/2	6	220	51	M58x1.5	56	
SYH-1877	153.5	35	M6x9	12-M10x20	166.5	155	101	47	15	80	108	4	M6x12	7	PT1/2	6	242	58	M84x2.0	81	
SYH-2091	168	35	M6x14	12-M12x24	183	165	110	47	15	95	120	4	M6x12	7	PT1/2	6	267	66	M99x2.0	96	

Specifications

Type	Available I.D.	Cylinder Dia.	Piston Stroke	Piston Surface Area		Piston Force		Max. Operating Pressure	Max. r.p.m.	GD²	Weight	Total leakage	KITAGAWA® Model
				Push [cm²]	Pull [cm²]	Push [kN(kgf)]	Pull [kN(kgf)]						
SYH-1036	36	105	15	67	64.5	25(2549)	24(2447)	4.0(40.8)	8000	0.10(0.011)	8.6	3	S-1036
SYH-1246	36,39,40,41,43,45,46	125	15	100	89	38(3875)	33(3365)	4.0(40.8)	8000	0.18(0.019)	12	3	S-1246
SYH-1552	46,52,69	155	22	161	150	60(6118)	56(5710)	4.0(40.8)	6200	0.52(0.053)	16.8	3.9	S-1552
SYH-1877	68,69,75,77	180	25	198	183	74(7546)	69(7036)	4.0(40.8)	4700	0.93(0.095)	26	4.2	S-1875
SYH-2091	78,91	205	30	252	234	94(9584)	88(8973)	4.0(40.8)	3800	1.45(0.153)	33	4.5	S-2091

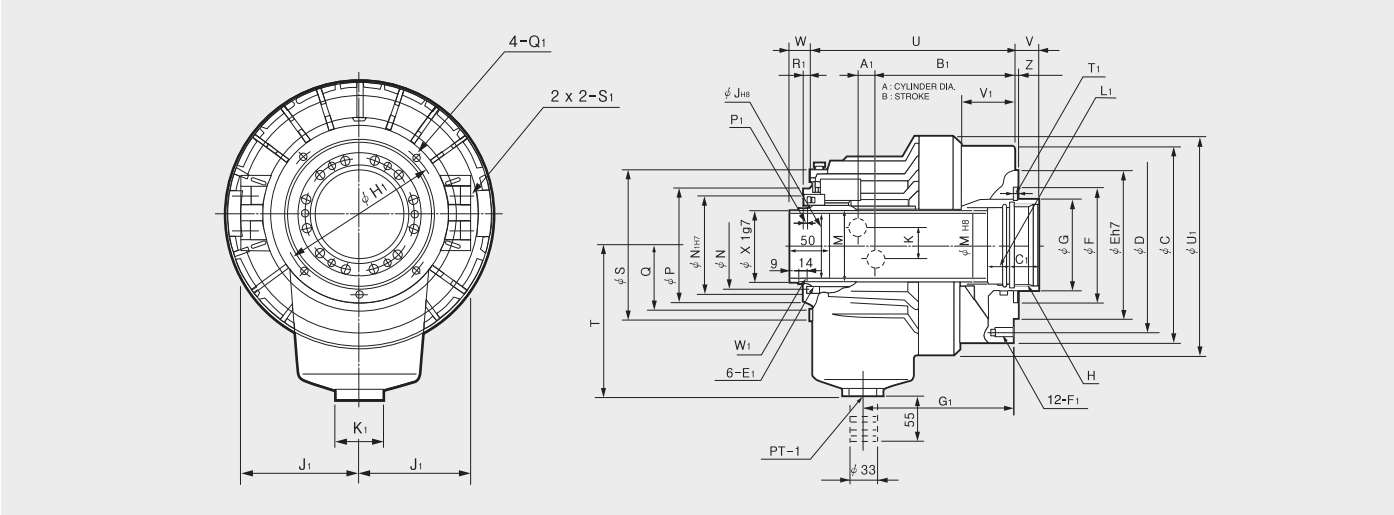
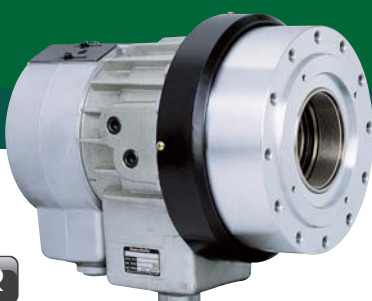
※ Specifications are subject to change without notice.
※ Maximum turning speed is based upon actual measurement.

SYHL

Open-Center Long-Stroke Hydraulic Cylinder

- Long-stroke high-speed open-centered hydraulic cylinder with built in lock and relief valves

HYDRAULIC CYLINDER



Dimensions

	ΦC	ΦD	ΦE	ΦF	ΦG	Hmax.	ΦJ	K	ΦM	ΦN	ΦP	Q	ΦS	T	U	Vmax.	Vmin.	Wmax.	Wmin.	Z	A1
SYHL-1246	155	130	100	80	65	M55x2.0	46	36	52.9	64	85	51.5	118	115	205	27	-5	57	25	5	11.5
SYHL-1552	190	170	130	85	70	M60x2.0	52	36	59.6	73	96	57	137	130	208	29	-5	59	25	5	12
SYHL-1877	215	190	160	120	95	M85x2.0	77	36	84.6	98	121	70	166	160	246	35	-5	65	25	5	17.5
SYHL-2091	240	215	180	140	110	M100x2.0	91	34	99.6	108	138	79	182	185	273	50	0	75	25	5	21
SYHL-2816	325	290	260	240	190	M180x3.0	166.5	30	174.6	188	222	120	282	250	370	51	0	76	25	5	28
	B1	C1	E1	F1	G1	H1	J1	K1	L1	M1	ΦN1	P1	Q1	R1	S1	T1	ΦU1	V1	W1	ΦX1	
SYHL-1246	147.5	30	M6x9	M10x20	156	98	76	47	15	50	76	4	M5x10	6	PT1/2	12	200	67	M52x1.5	50	
SYHL-1552	153	30	M6x9	M10x20	162	110	86	47	15	55	85	4	M6x12	7	PT1/2	12	220	68	M58x1.5	56	
SYHL-1877	169.5	35	M6x9	M10x20	182.5	155	101	47	15	80	108	4	M6x12	7	PT1/2	12	242	74	M84x2.0	81	
SYHL-2091	188	35	M6x14	M12x24	203	165	110	47	15	95	120	4	M6x12	7	PT1/2	12	267	86	M99x2.0	96	
SYHL-2816	259	45	M6x12	M16x32	276	256	162	47	20	170	200	4	M6x12	7	PT1/2	7	352	123	M173x2.0	170.5	

Specifications

Type	Available I.D.	Cylinder Dia.	Piston Stroke	Piston Surface Area		Piston Force		Max. Operating Pressure	Max. r.p.m.	GD²	Weight	Total leakage	KITAGAWA® Model
				Push [cm²]	Pull [cm²]	Push [kN(kgf)]	Pull [kN(kgf)]						
SYHL-1246	46	125	32	100	89	38(3875)	33(3365)	4.0(40.8)	7000	0.21(0.022)	12.8	3	S-1246L
SYHL-1552	52	155	34	161	150	60(6118)	56(5710)	4.0(40.8)	6200	0.56(0.058)	17	3.9	S-1552L
SYHL-1877	68, 75, 77	180	40	198	183	74(7546)	69(7063)	4.0(40.8)	4700	0.10(0.098)	26.8	4.2	S-1875L
SYHL-2091	91	205	50	252	234	94(9585)	88(8973)	4.0(40.8)	3800	1.56(0.160)	34.1	4.5	S-2091L
SYHL-2816	166.5	280	51	377	332	113(11522)	100(10196)	3.3(33.6)	2000	35.5(3.31)	101	8.4	S-2816L

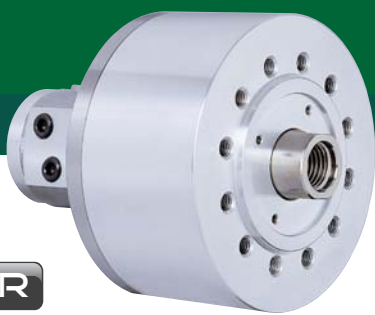
※ Certain models have several thru-hole sizes available.
※ Maximum turning speed is based upon actual measurement.
※ Specifications are subject to change without notice.
※ The bore threading varies by model, H max represents the largest possible threading.
※ Samcully Machinery Co., Ltd. is no longer an OEM manufacturer for Kitagawa® Iron Works Co., Ltd.

Y-R

Standard Closed-Center Hydraulic Cylinder

- Closed-centered hydraulic cylinder with built in lock and relief valves

HYDRAULIC CYLINDER

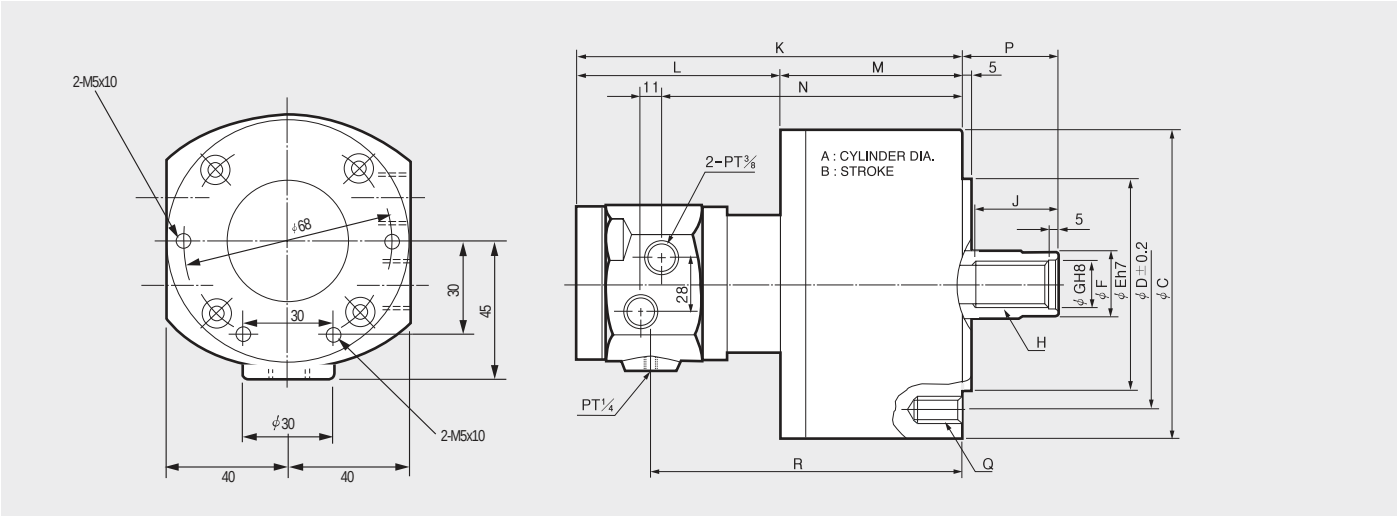
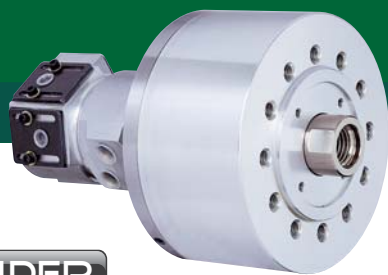


Y-RE

Closed-Center Hydraulic Cylinder with Proximity Bracket (75mm-125mm)

- Closed-centered hydraulic cylinder with built in lock and relief valves and proximity bracket

HYDRAULIC CYLINDER



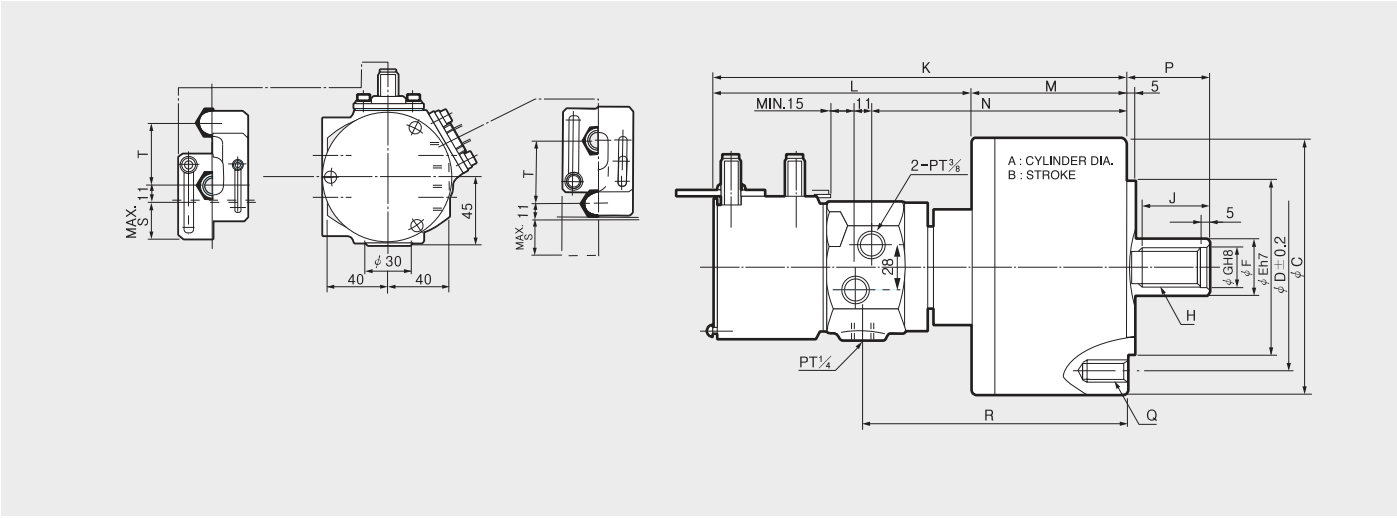
Dimensions

	A	B	ΦC	ΦD	ΦE	ΦF	ΦG	Hmax.	J	K	L	M	N	Pmax.	Pmin.	Q	R
Y-0715R	75	15	104	90	65	30	21	M20x2.5	35	172	106	66	127	46	31	6-M6x20	133
Y-1020R	105	20	135	100	80	30	21	M20x2.5	35	197	108	89	152	45	25	6-M10x20	158
Y-1225R	125	25	160	130	110	35	25	M24x3.0	44	205	108	97	160	51	26	6-M12x24	166
Y-1530R	150	30	190	130	110	45	31	M30x3.5	45	214	108	106	169	56	26	6-M12x24	175
Y-2035R	200	35	245	145	120	55	37	M36x4.0	60	228	106	122	183	69	34	12-M16x30	189

Specifications

Type	Piston Stroke [mm]	Piston Surface Area		Piston Force		Max. Operating Pressure [MPa(kgf/cm²)]	Max. r.p.m. [min⁻¹]	GD² [N·m²(kgf·m²)]	Weight [kgf]	Total leakage [ℓ/min]	KITAGAWA® Model
		Push [cm²]	Pull [cm²]	Push [kN(kgf)]	Pull [kN(kgf)]						
Y-0715R	15	44	37	16.6(1693)	13.9(1417)	4.0(40.8)	6000	0.118(0.012)	4	0.8	Y-0715R
Y-1020R	20	86	79	32.0(3264)	29(2957)	4.0(40.8)	6000	0.49(0.05)	7.1	0.8	Y-1020R
Y-1225R	25	122	113	46.0(4692)	42(4283)	4.0(40.8)	6000	0.88(0.09)	10	0.8	Y-1225R
Y-1530R	30	176	160	66.0(6732)	60(6118)	4.0(40.8)	5500	1.86(0.19)	13.5	0.8	Y-1530R
Y-2035R	35	314	290	117.0(11934)	108(11013)	4.0(40.8)	5500	3.82(0.39)	22	0.8	Y-2035R

※ Specifications are subject to change without notice.
※ Maximum turning speed is based upon actual measurement.
※ Piston Force : Hydraulic 4.0MPa (40.8kgf/cm²)
※ Total leakage pressure: 3.0 Mpa (30.6 kgf/cm²) at 50 ° C.
※ Samcully Machinery Co., Ltd, is no longer an OEM manufacturer for Kitagawa® Iron Works Co., Ltd



Dimensions

	A	B	ΦC	ΦD	ΦE	ΦF	ΦG	H	J	K	L	M	N	Pmax.	Pmin.	Q	R	S	T
Y-0715RE	75	15	104	90	65	30	21	M20x2.5	32	227	161	66	127	46	31	6-M6x20	133	23	41
Y-1020RE	105	20	135	100	80	30	21	M20x2.5	35	252	163	89	152	45	25	6-M10x20	158	23	41
Y-1025RE	105	25	135	100	80	30	21	M20x2.5	35	257	163	94	157	45	20	6-M10x20	163	23	41
Y-1225RE	125	25	160	130	110	35	25	M24x3.0	44	260	163	97	160	51	26	6-M12x24	166	23	41
Y-1240RE	125	40	160	130	110	35	25	M24x3.0	44	306	194	112	175	65	25	6-M12x24	181	-	-

Specifications

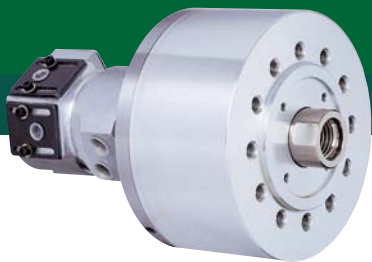
Type	Piston Stroke [mm]	Piston Surface Area		Piston Force		Max. Operating Pressure [MPa(kgf/cm²)]	Max. r.p.m. [min⁻¹]	GD² [N·m²(kgf·m²)]	Weight [kgf]	Total leakage [ℓ/min]	KITAGAWA® Model
		Push [cm²]	Pull [cm²]	Push [kN(kgf)]	Pull [kN(kgf)]						
Y-0715RE	15	44	37	16.6(1693)	13.9(1417)	4.0(40.8)	6000	0.118(0.012)	4.5	0.8	Y-0715RE
Y-1020RE	20	84	79	32.0(3264)	29(2957)	4.0(40.8)	6000	0.46(0.05)	7.6	0.8	Y-1020RE
Y-1025RE	25	84	79	32.0(3264)	29(2957)	4.0(40.8)	6000	0.49(0.05)	7.7	0.8	Y-1025RE
Y-1225RE	25	120	113	46.0(4692)	42(4283)	4.0(40.8)	6000	0.88(0.09)	10.5	0.8	Y-1225RE
Y-1240RE	40	120	113	46.0(4692)	42(4283)	4.0(40.8)	6000	0.88(0.09)	11	0.8	Y-1240RE

※ Specifications are subject to change without notice.
※ Maximum turning speed is based upon actual measurement.
※ Piston Force : Hydraulic 4.0MPa (40.8kgf/cm²)
※ Total leakage pressure: 3.0 Mpa (30.6 kgf/cm²) at 50 ° C.
※ Samcully Machinery Co., Ltd, is no longer an OEM manufacturer for Kitagawa® Iron Works Co., Ltd

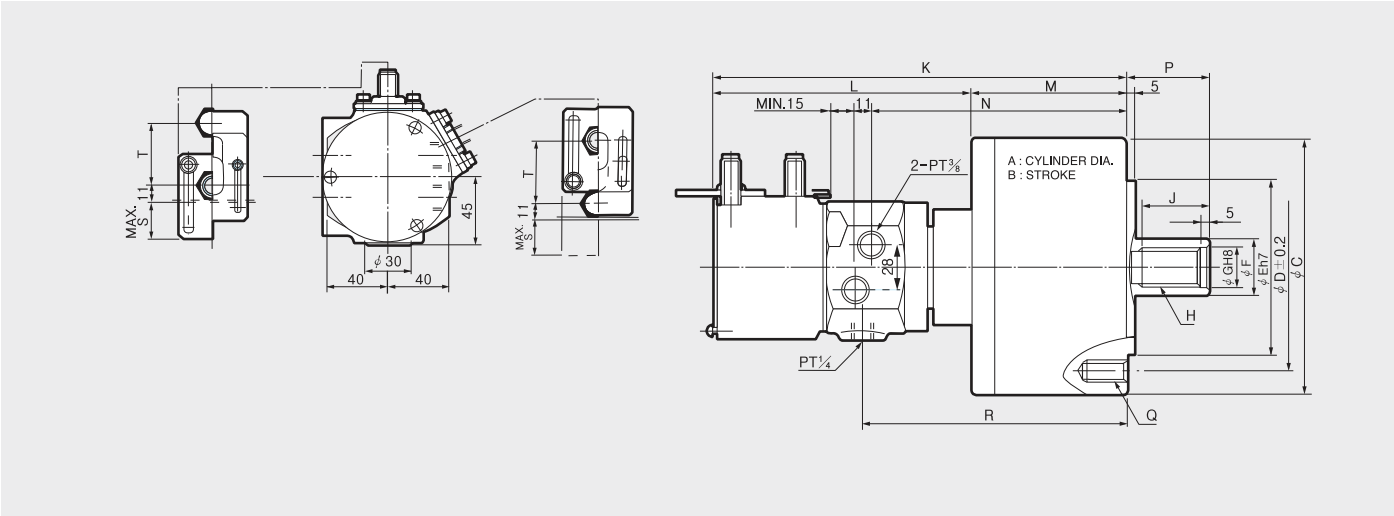
Y-RE

Closed-Center Hydraulic Cylinder with Proximity Bracket (150mm-250mm)

- Closed-centerd hydraulic cylinder with built in lock and
- relief valves and and proximity bracket



HYDRAULIC CYLINDER



Dimensions

	A	B	ΦC	ΦD	ΦE	ΦF	ΦG	H	J	K	L	M	N	Pmax.	Pmin.	Q	R	S	T
Y-1530RE	150	30	190	130	110	45	31	M30x3.5	45	269	163	106	169	56	26	6-M12x24	175	23	41
Y-1550RE	150	50	190	130	110	45	31	M30x3.5	55	320	194	126	189	80	30	6-M12x24	195	-	-
Y-2035RE	200	35	245	145	120	55	37	M36x4.0	60	288	166	122	183	69	34	12-M16x30	189	28	46
Y-2050RE	200	50	245	145	120	55	37	M36x4.0	60	333	192	141	202	80	30	12-M16x30	208	-	-
Y-2560RE	250	60	305	220	160	65	44	M42x3.0	65	379	207	172	227	85	25	12-M20x35	233	-	-

Specifications

Type	Piston Stroke	Piston Surface Area		Piston Force		Max. Operating Pressure	Max. r.p.m	GD ²	Weight	Total leakage	KITAGAWA® Model
		Push [cm²]	Pull [cm²]	Push [kN(kgf)]	Pull [kN(kgf)]						
Y-1530RE	30	174	160	66.0(6732)	60(6118)	4.0(40.8)	5500	1.86(0.19)	14	0.8	Y-1530RE
Y-1550RE	50	174	160	66.0(6732)	60(6118)	4.0(40.8)	5500	1.96(0.20)	14.8	0.8	Y-1550RE
Y-2035RE	35	312	290	117.0(11934)	108(11013)	4.0(40.8)	5500	3.82(0.39)	22.5	0.8	Y-2035RE
Y-2050RE	50	312	290	117.0(11934)	108(11013)	4.0(40.8)	5500	4.12(0.42)	23.5	0.8	Y-2050RE
Y-2560RE	60	515	482	193(19541)	180(18289)	4.0(40.8)	2000	9.0(0.92)	85	0.8	-

※ Specifications are subject to change without notice.
※ Maximum turning speed is based upon actual measurement.
※ Piston Force : Hydraulic 4.0MPa (40.8kgf/cm²)
※ Total leakage pressure: 3.0 Mpa (30.6 kgf/cm²) at 50 ° C.
※ Samcully Machinery Co., Ltd. is no longer an OEM manufacturer for Kitagawa® Iron Works Co., Ltd

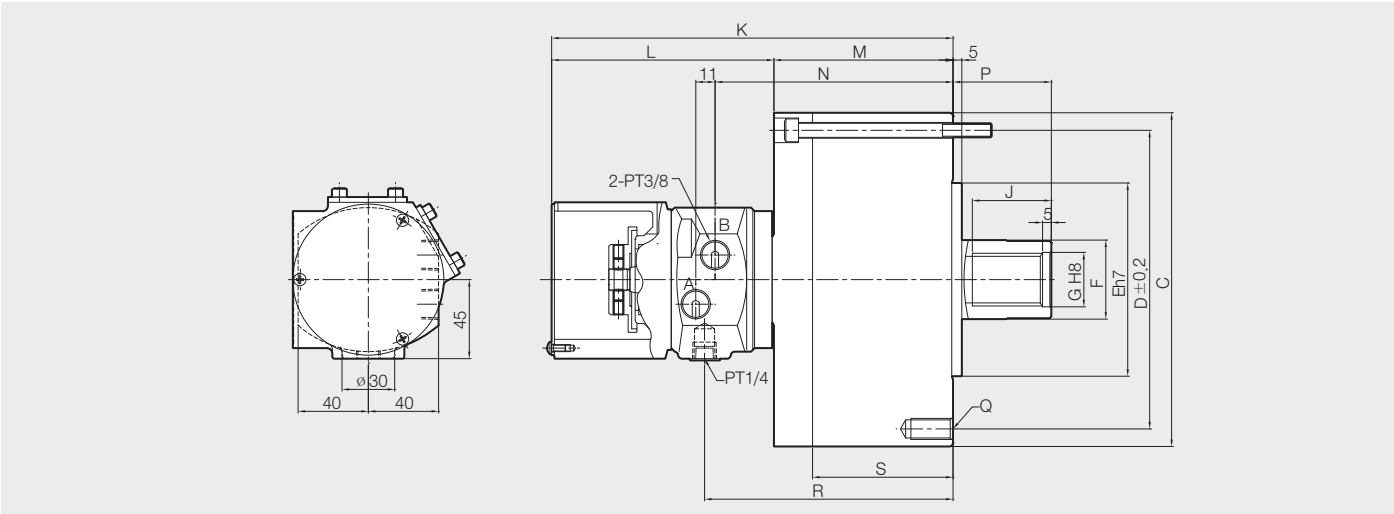
YH-RE

Ultra-Compact Closed-Center Hydraulic Cylinder with Proximity Bracket

- Closed-centerd hydraulic cylinder with built in lock and relief valves
- High space efficiency by compact design and and proximity bracket



HYDRAULIC CYLINDER



Dimensions

	ΦC	ΦD	ΦE	ΦF	ΦG	J	K	L	M	N	Pmax.	Pmin.	Q	R	S
YH-10120RE	135	118	80	30	21	35	209.6	126.6	83	116.5	45	25	6-M10x20	122.5	67
YH-10125RE	135	118	80	30	21	35	214.6	126.6	88	121.5	45	20	6-M10x20	127.5	72
YH-12125RE	160	142	110	35	25	44	220.6	126.6	94	127.5	51	26	12-M12x24	133.5	72
YH-12140RE	160	142	110	35	25	44	267.1	156.6	109	142.5	65	25	12-M12x24	148.5	87
YH-15130RE	190	170	110	45	31	45	228.6	126.6	102	135.5	56	26	12-M12x24	141.5	80
YH-15150RE	190	170	110	45	31	55	280.1	158.1	122	155.5	80	30	12-M12x24	161.5	100
YH-20135RE	245	222	120	55	37	60	240.6	133.6	107	140.5	69	34	12-M16x30	146.5	85
YH-20150RE	245	222	120	55	37	60	280.1	158.1	122	155.5	80	30	12-M16x30	161.5	100
YH-25160RE	305	275	160	65	44	65	310	136	142.5	176	85	25	12-M20x35	182	120.5

Specifications

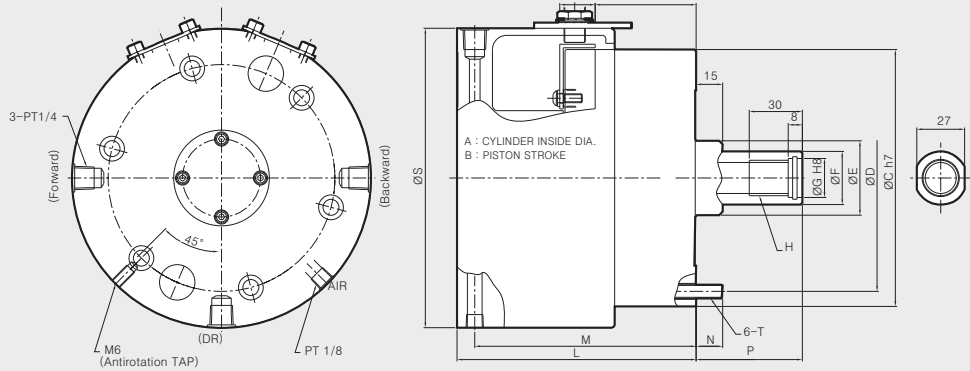
Type	Piston Stroke	Piston Surface Area		Piston Force		Max. Operating Pressure	Max. r.p.m	GD ²	Weight	Total leakage	KITAGAWA® Model
		Push [cm²]	Pull [cm²]	Push [kN(kgf)]	Pull [kN(kgf)]						
YH-10120RE	20	78	73	29(2960)	27(2770)	40(40.8)	6000	0.49(0.05)	7.6	0.8	
YH-10125RE	25	78	73	29(2960)	27(2770)	40(40.8)	6000	0.49(0.05)	7.7	0.8	
YH-12125RE	25	114	106	42(4326)	39(4022)	40(40.8)	6000	0.88(0.09)	10.5	0.8	
YH-12140RE	40	114	106	42(4326)	39(4022)	40(40.8)	6000	0.88(0.09)	11	0.8	
YH-15130RE	30	168	154	63(6375)	57(5843)	40(40.8)	5500	1.86(0.19)	14	0.8	
YH-15150RE	50	168	154	63(6375)	57(5843)	40(40.8)	5500	1.96(0.2)	14.5	0.8	
YH-20135RE	35	305	283	114(11573)	105(10738)	40(40.8)	5500	3.82(0.39)	22.5	0.8	
YH-20150RE	50	305	283	114(11573)	105(10738)	40(40.8)	5500	4.12(0.42)	23.5	0.8	
YH-25160RE	60	515	482	193(19541)	180(18289)	40(40.8)	2000	9(0.92)	88	0.8	

Ultra-Compact Closed-Center Hydraulic Cylinder with Proximity Bracket and Built-in Rotary Union

- Built-in rotary union saves space and allows air-sensing capabilities
- Includes proximity brackets



HYDRAULIC CYLINDER



Dimensions

	A	B	ΦC	ΦD	ΦE	ΦF	ΦG	H	J	K	L	M	N	Pmax.	Pmin.	Qmax.	Qmin.	R	ΦS	T
YS-11020RA	110	20	145	128	42	30	22	M20x2.5	30	15	135	125	14	60	40	77	57	20	169	M8x80
YS-12021RA	120	21	168	145	42	30	22	M20x2.5	30	15	135	125	17	60	39	78	57	20	192	M8x80
YS-13030RA	130	30	168	150	51	36	26	M24x3.0	35	15	144	134	17	60	30	90	66	20	192	M10x80

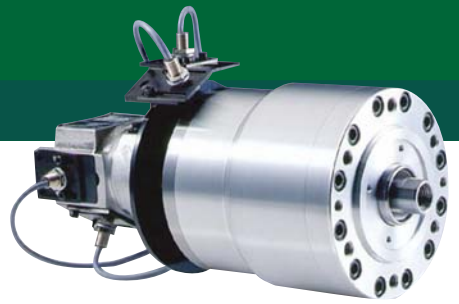
Specifications

Type	Piston Stroke	Piston Surface Area		Piston Force		Max. Operating Pressure	Max. r.p.m.	GD ²	Weight	Total leakage	KITAGAWA® Model
	[mm]	Push [cm²]	Pull [cm²]	Push [kN(kgf)]	Pull [kN(kgf)]	[MPa(kgf/cm²)]	[min⁻¹]	[N·m²(kgf·m²)]	[kgf]	[ℓ/min]	
YS-11020RA	20	87.6	84	28(2855)	27(2753)	3.5(35.7)	6000	0.157(0.016)	8.2	1.2	-
YS-12021RA	21	105.7	102	39(3977)	38(3875)	4.0(40.8)	6000	0.274(0.028)	10.2	1.2	-
YS-13030RA	30	131.8	122.5	47(4793)	45(4589)	4.0(40.8)	6000	0.284(0.029)	10.3	1.2	-

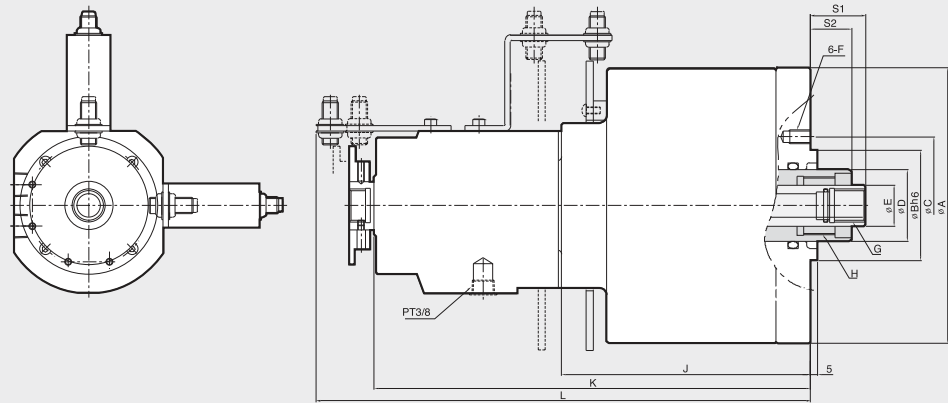
DY

Double-Piston Hydraulic Cylinder

- Double piston Cylinder
- Actuate chucks with face drivers or parts ejectors and and proximity bracket



HYDRAULIC CYLINDER



※ Piston A : Outer Piston
Piston B : Inner Piston

Dimensions

	ΦA	ΦB(h6)	ΦC	ΦD	ΦE	F	G	H	J	K	L
DY-12530	160	110	145	50	29	6-M12	M20x1.5	M42x1.5	178	299	341
DY-16030	200	125	100	52	30	6-M10	M24x1.5	M42x1.5	181	371	359

Specifications

Type		Piston Dia.	Piston Area	Piston Stroke		Max. Operating Pressure	Max. r.p.m.	Weight	GD²
		[mm]	[cm²]	Max.	Min.	[MPa(kg/ cm²)]	[min⁻¹]	[kgf]	[N·m²(kg·m²)]
DY-12530	Piston A	125	102	49	34	4(40.8)	5000	16.5	0.441(0.045)
	Piston B	85	46	38	18				
DY-16030	Piston A	160	164	60	45	4(40.8)	3000	24.5	2.94(0.3)
	Piston B	85	46	48	18				

- Operates independently of two pistons
- Compatible with HCWF Chuck

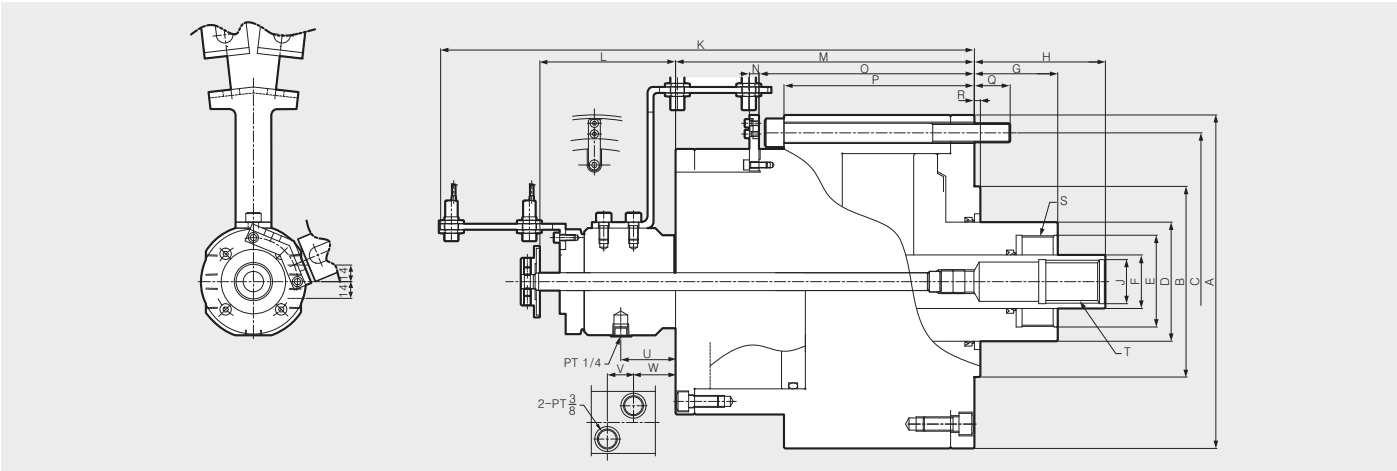


HYDRAULIC CYLINDER

- Closed-Centered Pneumatic Cylinder



PNEUMATIC CYLINDER



※ Piston A : Outer Piston
Piston B : Inner Piston

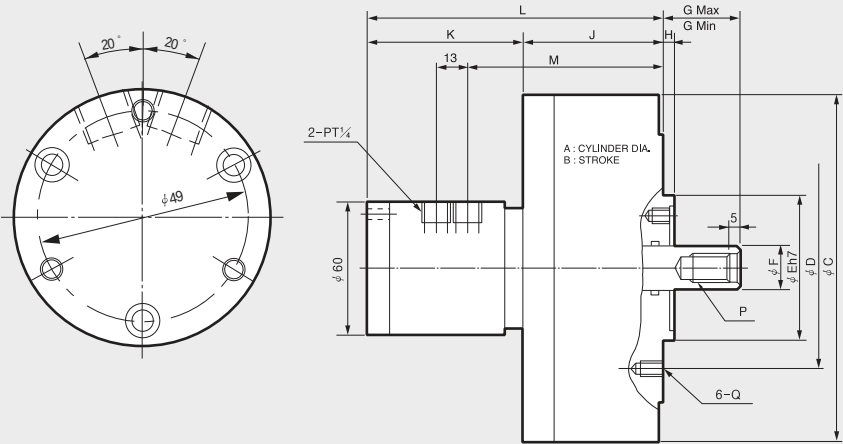
Dimensions

	ΦA	ΦB	ΦC	ΦD	ΦE	ΦF	Gmax.	Gmin.	Hmax.	Hmin.	ΦJ	K	L	M	N	O	P	Q	R	S	T	U	V	W
DYV-21560	280	160	250	100	77	45	70	10	110	50	37	448.3	114	251	8	181	160	30	5	M75x2.0	M36x4.0	46	22	35.3

Specifications

Type	Piston Stroke	Piston Force		Piston Area		Max. Operating Pressure	Max. r.p.m.	Weight	GD²
		Push [kN(kgf)]	Pull [kN(kgf)]	Push [cm²]	Pull [cm²]				
DYV-21560	Piston A	16.9(1724)	13.9(1420)	363	299	5.1(50)	3200	-	-
	Piston B	11.8(1206)	11.1(1130)	254	238				

- ※ Specifications are subject to change without notice.
- ※ Maximum turning speed is based upon actual measurement.
- ※ Piston Force : Hydraulic 4.0MPa (40.8kgf/cm²)
- ※ Total leakage pressure: 3.0 Mpa (30.6 kgf/cm²) at 50 ° C.
- ※ Samcully Machinery Co., Ltd. is no longer an OEM manufacturer for Kitagawa® Iron Works Co., Ltd



Dimensions

	A	B	ΦC	ΦD	ΦE(h7)	ΦF	Gmax.	Gmin.	H	J	K	L	M	N	Q	P
AY-1005R	100	5	128	90	65	20	30	25	5	53	70	123	79	M5	M6x11	M12x22
AY-1315R	130	15	156	90	65	20	35	20	5	63	70	133	89	M6	M6x11	M12x22
AY-1720R	170	20	200	100	80	25	65	45	5	82	70	152	108	M7	M10x16	M16x30
AY-2225R	220	25	255	130	110	30	71	46	5	93	70	163	119	M8	M12x20	M20x35
AY-2730R	270	30	305	130	110	35	76	46	5	103	74.5	177.5	133.5	M9	M12x20	M24x40

Specifications

Type	Piston Stroke	Piston Surface Area		Piston Force		Max. Pneumatic Pressure	Max. r.p.m.	Weight	GD²
		Push [cm²]	Pull [cm²]	Push [kN(kgf)]	Pull [kN(kgf)]				
AY-1005R	5	78.5	73.6	5.4(552)	5.1(518)	8(0.82)	5000	4.1	0.07
AY-1315R	15	131	128	7.7(786)	7.5(770)	8(0.82)	5000	5.2	0.07
AY-1720R	20	225	220.1	13.23(1350)	12.9(1320)	8(0.82)	5000	8.3	0.11
AY-2225R	25	378	371.1	22.2(2268)	21.8(2226)	8(0.82)	4000	13.3	0.25
AY-2730R	30	570.4	560.8	33.5(3422)	33.0(3364)	8(0.82)	3000	18.7	0.75