POWER UNIT CYLINDER-DPA series (Approach operated)

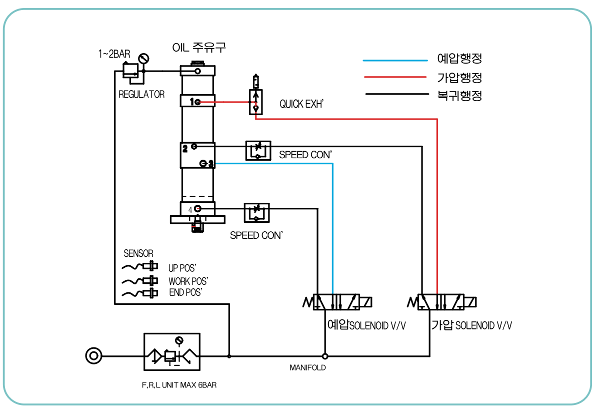
1. 에어구동식으로압축공기 6bar를 공급하여 1ton~40ton의 힘으로 프레스를 할 수 있으며, 주문에 의해 그 이상의 톤(ton)도 제작 가능하다.
2. 에어구동식이므로 작업환경이 깨끗하다.
3. 에어구동식이므로 설치공간 활용도를 높일 수 있고 시스템 제어 및 A/S가 편리하다.
4. 에어구동식이므로 빠른 행정(800mm/sec)으로 생산량을 높일 수 있다.
5. 마그네트 기본 내장 타입으로 가압시간, 위치를 임의조절이 가능하다.
6. 스위치 : OPERATION VOLTAGE : 5~220V DC/AC

● DPA series 사양표

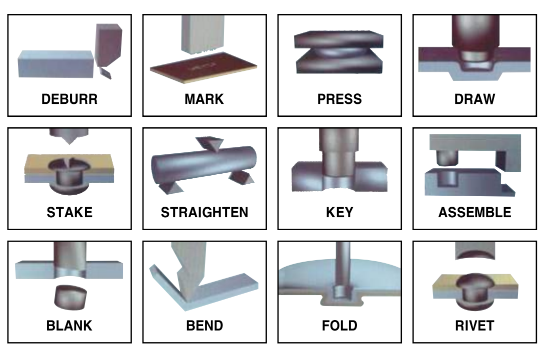
MODEL	TOTAL STROKE	WORKING STROKE	OPERATING PRESSURE(kg/㎠)							
			(kg)	1	2	3	4	5	6	7
DPA010 (1TON)	60mm 120mm	7.5mm 15mm	예압행정힘	18	37	55	74	93	111	130
			가압행정힘	194	389	584	779	974	1168	1363
			후퇴행정힘	24	48	72	96	120	144	168
DPA020 (2TON)			예압행정힘	26	53	79	106	132	159	185
			가압행정힘	380	760	1140	1520	1900	2280	2660
			후퇴행정힘	40	81	121	162	203	243	284
DPA030 (3TON)			예압행정힘	40	80	120	160	200	240	280
			가압행정힘	615	1231	1847	2463	3078	3694	4310
			후퇴행정힘	65	131	197	263	329	395	461
DPA050 (5TON)			예압행정힘	65	131	197	263	329	395	461
			가압행정힘	985	1970	2955	3940	4925	5910	6896
			후퇴행정힘	106	213	320	427	534	640	747
DPA075 (7.5TON)			예압행정힘	157	314	471	628	785	942	1099
			가압행정힘	1442	2885	4327	5770	7212	8655	10098
			후퇴행정힘	157	314	471	628	785	942	1099
DPA100 (10TON)			예압행정힘	106	212	318	424	530	636	742
			가압행정힘	1986	3972	5958	7944	9930	11916	13902
			후퇴행정힘	181	362	544	725	907	1088	1270
DPA200 (20TON)			예압행정힘	188	377	565	754	942	1131	1319
			가압행정힘	4265	8530	12795	17060	21325	25590	29855
			후퇴행정힘	263	526	789	1052	1315	1578	1841
DPA300 (30TON)			예압행정힘	188	377	565	754	942	1131	1319
			가압행정힘	6029	12058	18087	24116	30145	36174	42203
			후퇴행정힘	263	526	789	1052	1315	1578	1841
DPA400 (40TON)			예압행정힘	188	377	565	754	942	1131	1319
			가압행정힘	8112	16224	24336	32445	40560	48672	56784
			후퇴행정힘	263	526	78	1052	1315	1578	1841

※TOTAL STROKE : 400mm, WORKING STROKE : 40mm 까지 제작됨.

● DPA series 표준회로도



● 적용사례



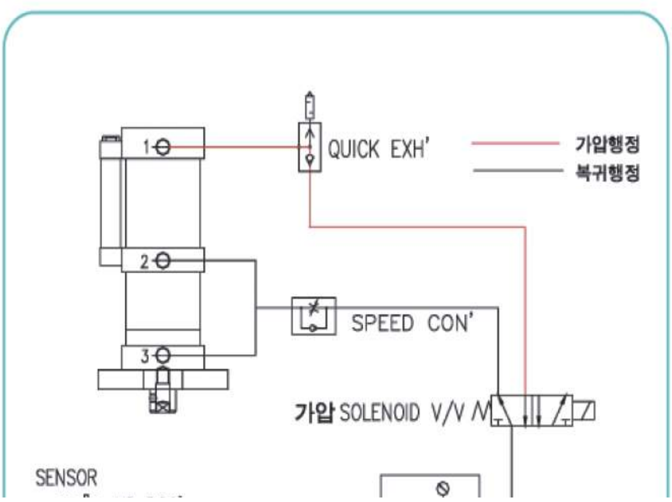
POWER UNIT CYLINDER–DPD series (direct operated)

4. 에어구동식이므로 빠른 행정으로 생산량을 높일 수 있다.
5. 행정이 가압만 이루어진다.
6. 마그네트 기본 내장 타입으로 가압시간, 위치를 임의조절이 가능하다.
7. 스위치 : OPERATION VOLTAGE : 5~220V DC/AC

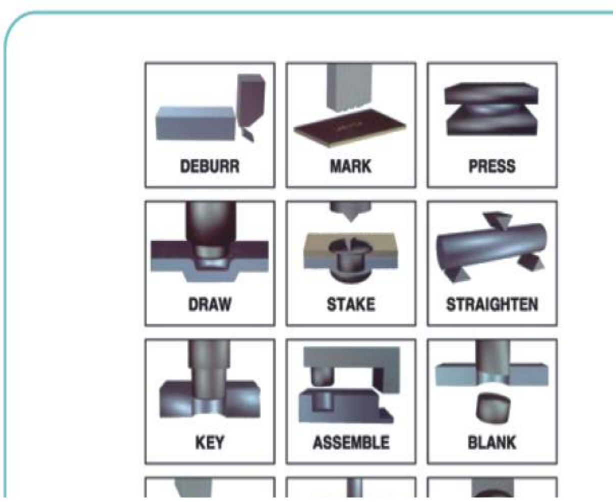
● DPD series 사양표

MODEL	WORKING STROKE	OPERATING PRESSURE(kg/㎠)							
		(kg)	1	2	3	4	5	6	7
DPD010 (1TON)	7.5mm 15mm	가압행정힘	194	389	584	779	974	1168	1363
		후퇴행정힘	24	48	72	96	120	144	168
DPD020 (2TON)		가압행정힘	380	760	1140	1520	1900	2280	2660
		후퇴행정힘	40	81	162	162	243	243	284
DPD030 (3TON)		가압행정힘	615	1231	1847	2463	3078	3694	4310
		후퇴행정힘	65	131	197	263	329	395	461
DPD050 (5TON)		가압행정힘	985	1970	2955	3940	4925	5910	6896
		후퇴행정힘	106	213	320	427	534	640	747
DPD075 (7.5TON)		가압행정힘	1442	2885	4327	5770	7212	8655	10098
		후퇴행정힘	157	314	471	628	785	942	1099
DPD100 (10TON)		가압행정힘	1986	3972	5958	7944	9930	11916	13902
		후퇴행정힘	181	362	544	725	907	1088	1270
DPA200 (20TON)	15mm	가압행정힘	4265	8530	12795	17060	21325	25590	29855
		후퇴행정힘	263	526	789	1052	1315	1578	1841
DPA300 (30TON)		가압행정힘	6029	12058	18087	24116	30145	36174	42203
		후퇴행정힘	263	526	789	1052	1315	1578	1841
DPA400 (40TON)		가압행정힘	8112	16224	24336	32448	40560	48672	56784
		후퇴행정힘	263	526	789	1052	1315	1578	1841

● DPD series 표준회로도



● 적용사례



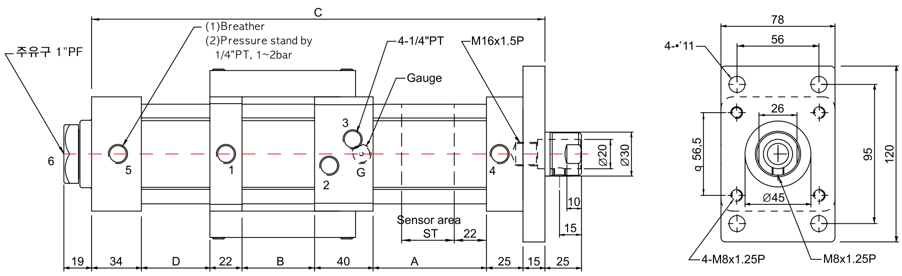
POWER UNIT CYLINDER-DPA series (Approach operated)

● ORDERING CODE

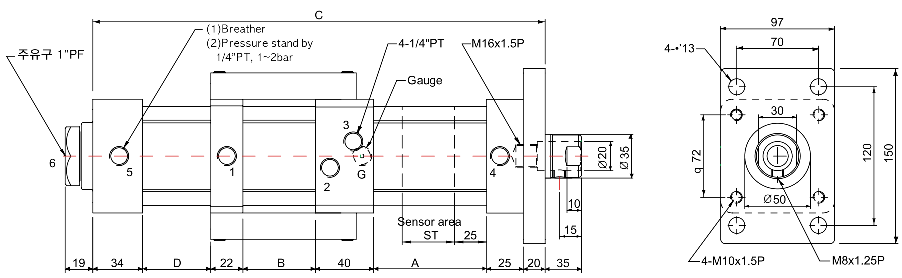
①	–	②	–	③	–	④	–	⑤	–	⑥
model (power)		total stroke		working stroke		작업방향		액세서리 CS-ROD END RS-DIE HOLDER RAD		스위치 DT11R

작업방향: ↓ | ↘↙

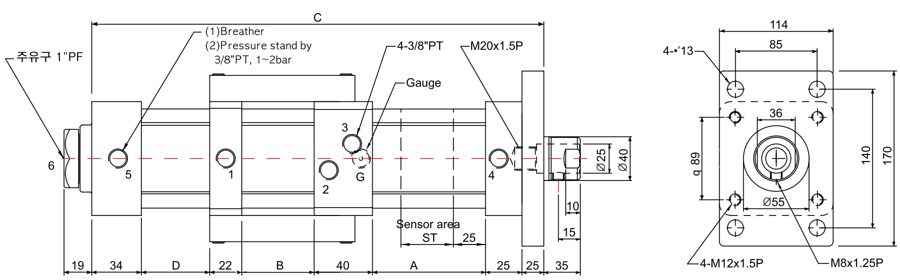
● DIMENSION-DPA series



MODEL	TOTAL STROKE	WORKING STROKE	A	B	C	D
DPA-010-060-075	60	7.5	172	83	491	100
DPA-010-060-150	60	15	172	130	538	100
DPA-010-120-075	120	7.5	292	83	661	150
DPA-010-120-150	120	15	292	130	708	150

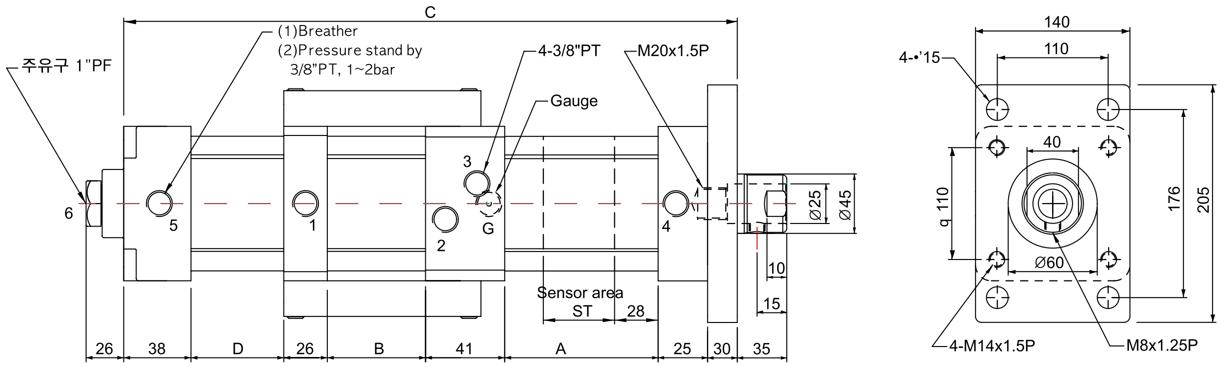


MODEL	TOTAL STROKE	WORKING STROKE	A	B	C	D
DPA-020-060-075	60	7.5	178	97	516	100
DPA-020-060-150	60	15	178	153	572	100
DPA-020-120-075	120	7.5	298	97	686	150
DPA-020-120-150	120	15	298	153	742	150

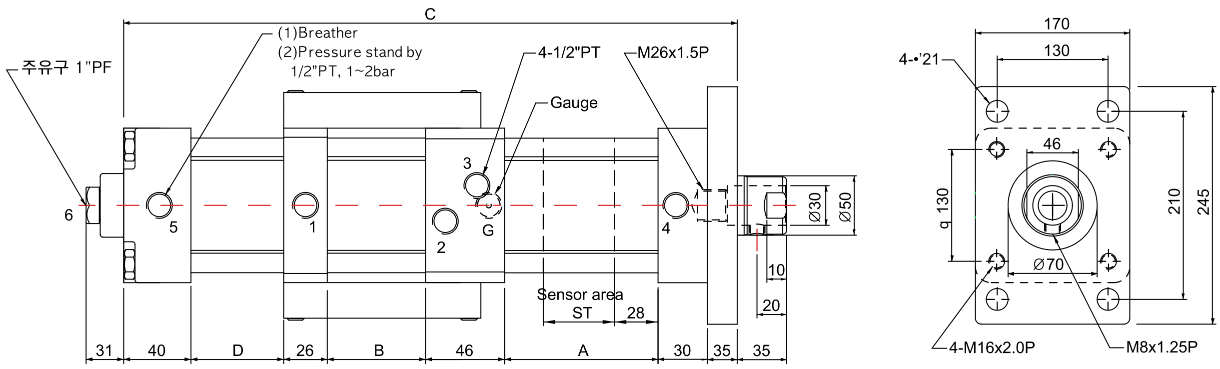


MODEL	TOTAL STROKE	WORKING STROKE	A	B	C	D
DPA-030-060-075	60	7.5	182	99	527	100
DPA-030-060-150	60	15	182	158	586	100
DPA-030-120-075	120	7.5	302	99	697	150
DPA-030-120-150	120	15	302	158	756	150

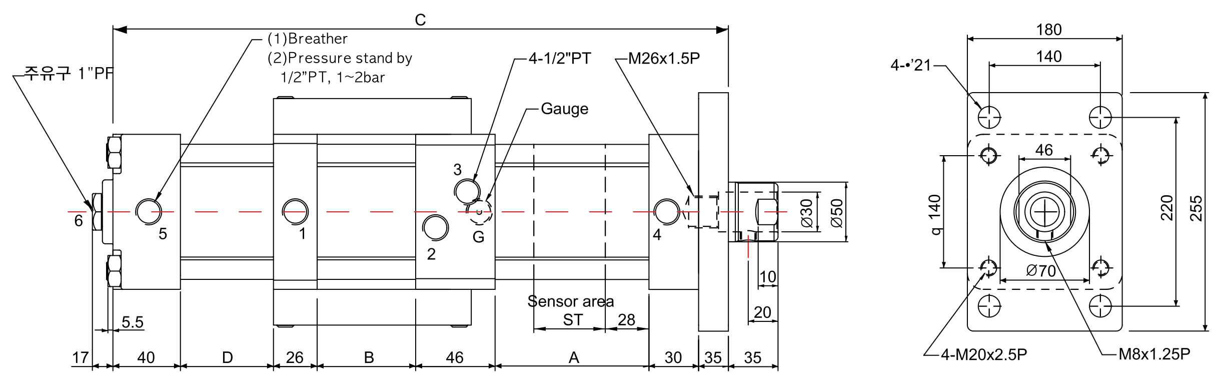
DIMENSION-DPA series



MODEL	TOTAL STROKE	WORKING STROKE	A	B	C	D
DPA-050-060-075	60	7.5	188	107	555	100
DPA-050-060-150	60	15	188	167	615	100
DPA-050-120-075	120	7.5	308	107	725	150
DPA-050-120-150	120	15	308	167	785	150

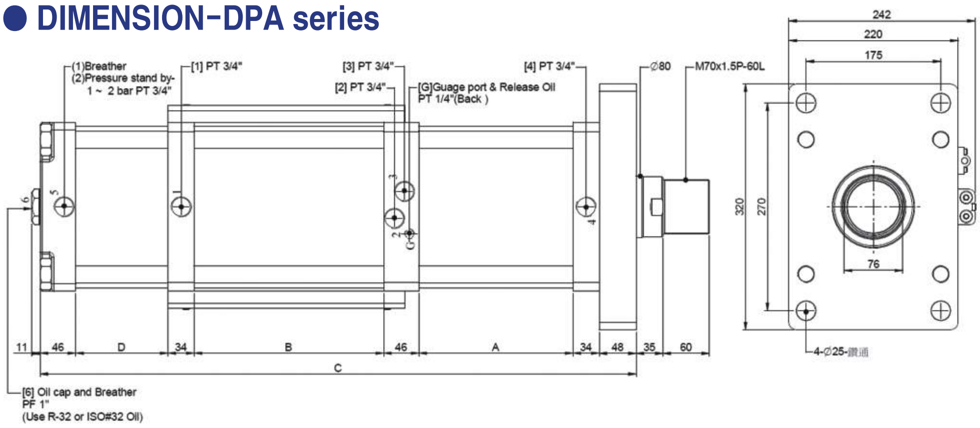


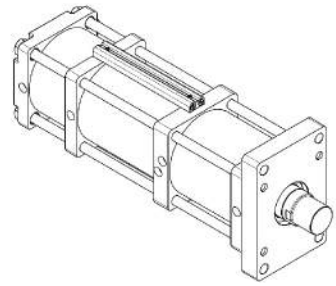
MODEL	TOTAL STROKE	WORKING STROKE	A	B	C	D
DPA-075-060-075	60	7.5	187	108	572	100
DPA-075-060-150	60	15	187	169	633	100
DPA-075-120-075	120	7.5	307	108	742	150
DPA-075-120-150	120	15	307	169	803	150



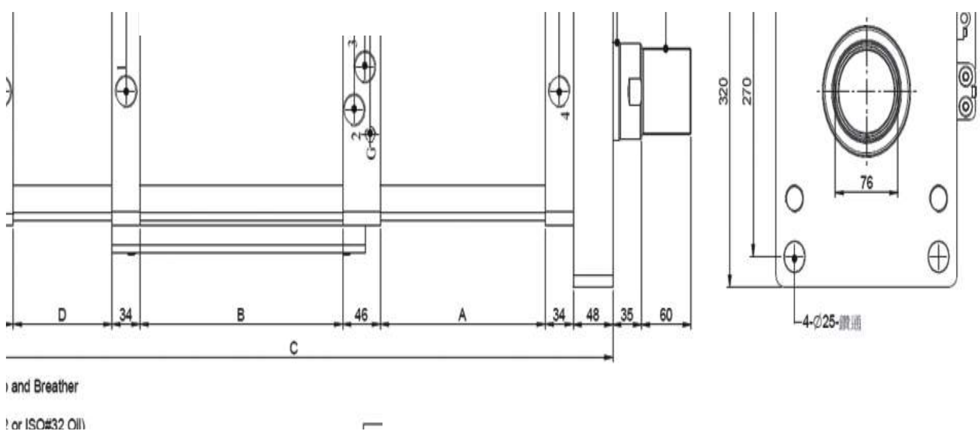
MODEL	TOTAL STROKE	WORKING STROKE	A	B	C	D
DPA-100-060-075	60	7.5	187	121	585	100
DPA-100-060-150	60	15	187	195	659	100
DPA-100-120-075	120	7.5	307	121	755	150
DPA-100-120-150	120	15	307	195	829	150

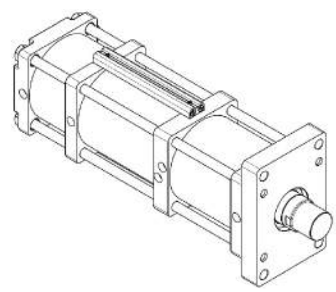
DIMENSION-DPA series



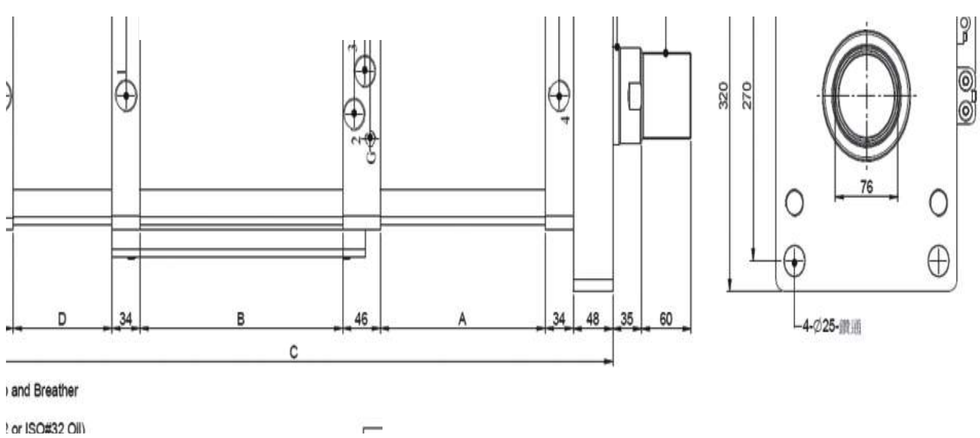


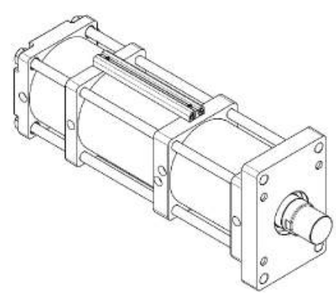
MODEL	TOTAL STROKE	WORKING STROKE	A	B	C	D
DPA-200-060-150	60	15	200	246	774	120
DPA-200-120-150	120	15	320	246	954	180





MODEL	TOTAL STROKE	WORKING STROKE	A	B	C	D
DPA-300-060-150	60	15	200	331	859	120
DPA-075-120-150	120	15	320	331	1539	180



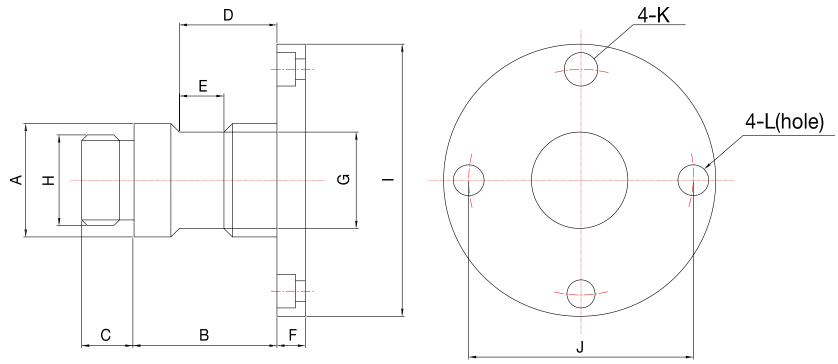


MODEL	TOTAL STROKE	WORKING STROKE	A	B	C	D
DPA-400-060-150	60	15	200	431	959	120
DPA-100-060-150	120	15	320	431	1139	180

ACCESSORIES for DPA/DAD series

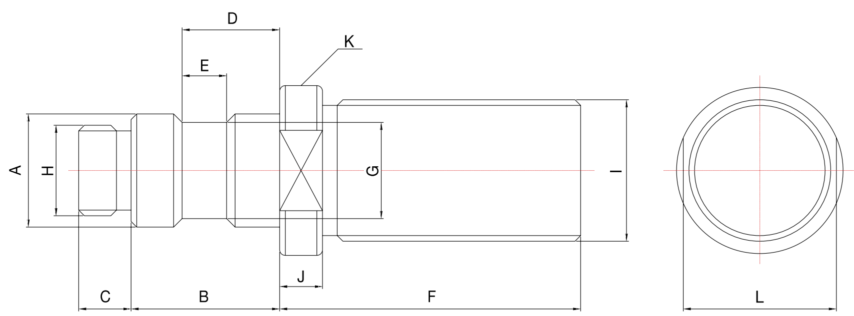
DME Mechatronics

● DIE HOLDER PAD



MODEL	POWER	A	B	C	D	E	F	G	H	I	J	K	L	M
DHP-000-000-010	1T	20	29	12	20	10	15	17	M16 × 1.5	60	47	6.5	11	6.5
DHP-000-000-020	2T	20	29	12	20	10	15	17	M16 × 1.5	60	47	6.5	11	6.5
DHP-000-000-030	3T	25	34	12	20	10	15	22	M20 × 1.5	65	52	6.5	11	6.5
DHP-000-000-050	5T	25	34	12	20	10	15	22	M20 × 1.5	65	52	6.5	11	6.5
DHP-000-000-075	7.5T	30	39	12	20	10	18	27	M26 × 1.5	85	67	8.5	13	8
DHP-000-000-100	10T	30	39	12	20	10	18	27	M26 × 1.5	85	67	8.5	13	8

● ROD END



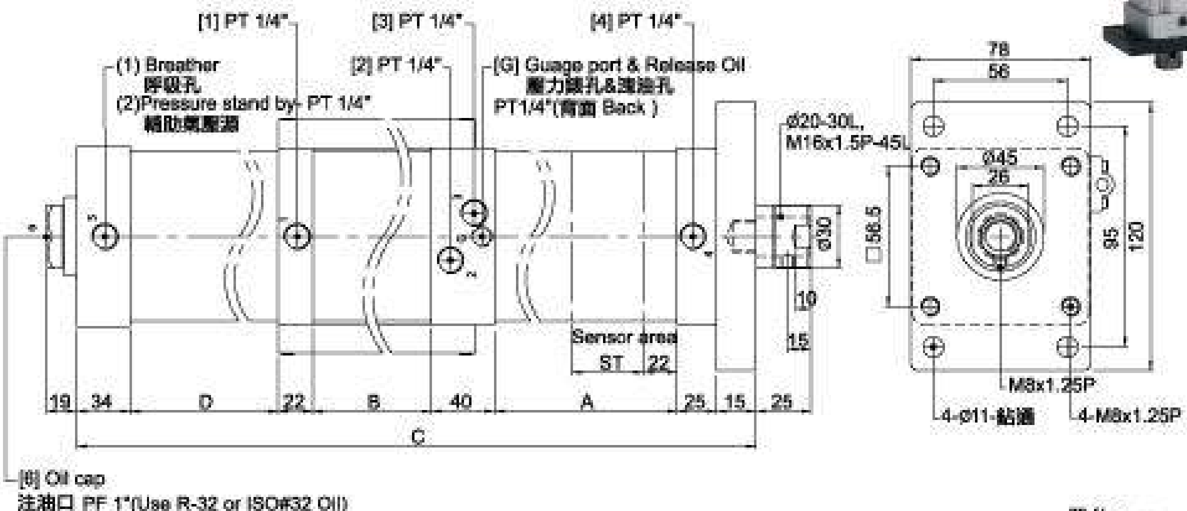
MODEL	POWER	A	B	C	D	E	F	G	H	I	J	K	L
DRE-000-000-010	1T	20	29	12	20	10	50	17	M16 × 1.5	M25 × 2.0	47	6.5	11
DRE-000-000-020	2T	20	29	12	20	10	50	17	M16 × 1.5	M30 × 2.0	47	6.5	11
DRE-000-000-030	3T	25	34	12	20	10	50	22	M20 × 1.5	M30 × 2.0	52	6.5	11
DRE-000-000-050	5T	25	34	12	20	10	50	22	M20 × 1.5	M40 × 2.0	52	6.5	11
DRE-000-000-075	7.5T	30	39	12	25	10	60	27	M26 × 1.5	M40 × 2.0	67	8.5	13
DRE-000-000-100	10T	30	39	12	25	10	60	27	M26 × 1.5	M40 × 2.0	67	8.5	13

預壓式出力1噸增壓缸
Approach Operated/ 1 Ton

DPA — 010 — 060 — 075 + DHP + S2

系列 Series	增壓出力 Working Force	總行程 Total strok	增壓行程 Working stroke	增壓缸配件 Accessories	感應器 Sensor
預壓式	1噸 Ton	60mm - 060 120mm -120	7.5mm - 075 15mm - 150	模具座墊-DHP Die Holder Pad 末端棒-DRE Rod End 請參照第22頁 Reference page 22 空白表示不需要 Blank is no needed	1Pcs-S1 2Pcs-S2

外觀尺寸Dimensional Features（單位：mm）：



單位：mm

產品編號 Code No.	總行程Total stroke	增壓行程 Working stroke	A	B	C	D
DPA-010-060-075	60	7.5	172	83	491	100
DPA-010-060-150	60	15	172	130	538	100
DPA-010-120-075	120	7.5	292	83	661	150
DPA-010-120-150	120	15	292	130	708	150

理論出力及空氣消耗量（往返一次之耗氣量）：

Theoretical force & Consumption（The values for a complete "down stroke/return" cycle）：

編碼	總出力/kg	回程拉力/kg	耗氣量(往返一次)/L
DPA-010-060-075	(214.6 x Pd)	(24.2 x Pd)	(0.606 x Pd + 0.626) / 1.033
DPA-010-060-150			(0.890 x Pd + 0.919) / 1.033
DPA-010-120-075			(0.870 x Pd + 0.898) / 1.033
DPA-010-120-150			(1.152 x Pd + 1.190) / 1.033

註 1).Pd:氣壓源(Driven pressure)-- kg/cm²

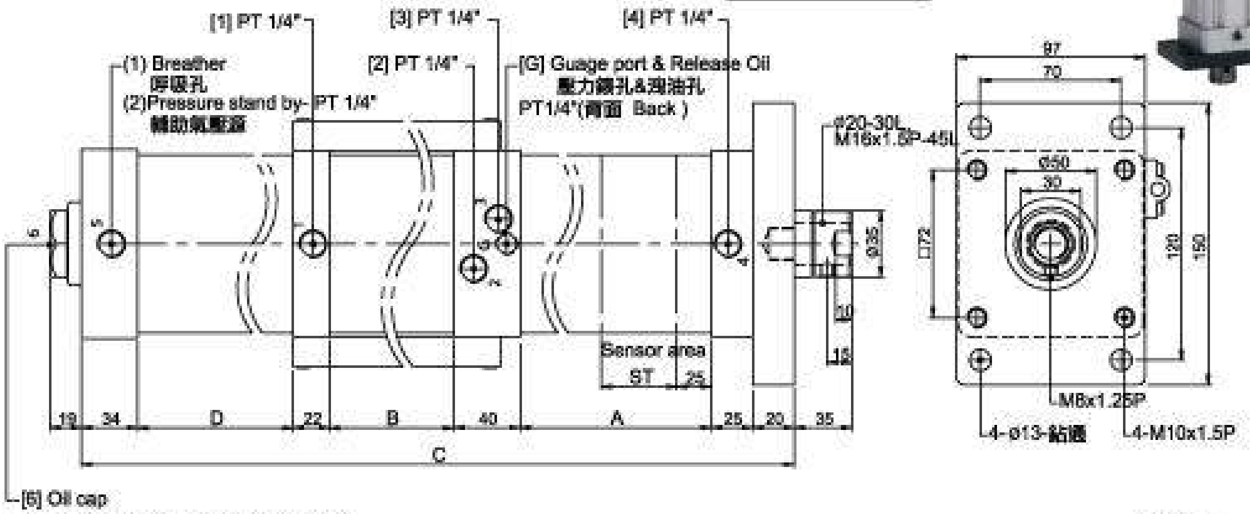
舉例：設增壓缸規格為 DPA-010-060-075，當操作壓力為 5 kg/cm²，則增壓缸總出力及往返一次之耗氣量為：214.6 ×5 = 1073 kg；(0.606 ×5 + 0.626) = 3.54ℓ

Example 1：If the power unit code No. DPA-010-060-075 , operating pressure is 5 kg/cm², so force of the Power unit Cylinder and the consumption for a complete "down stroke/return" cycle is： 214.6 ×5 = 1073 kg；(0.606 ×5 + 0.626) = 3.54ℓ

預壓式出力2噸增壓缸
Approach Operated/ 2 Ton

DPA	020	060	075	DHP	S2
系列 Series	增壓出力 Working Force	總行程 Total strok	增壓行程 Working stroke	增壓缸配件 Accessories	感應器 Sensor
預壓式	2噸 Ton	60mm - 060 120mm -120	7.5mm - 075 15mm - 150	模具座墊-DHP Die Holder Pad 末端桿-DRE Rod End 請參照第22頁 Reference page 22 空白表示不需要 Blank is no needed	1Pcs-S1 2Pcs-S2

外觀尺寸Dimensional Features（單位：㎜）：



單位：㎜

產品編號 Code No.	總行程 Total stroke	增壓行程 Working stroke	A	B	C	D
DPA-010-060-075	60	7.5	178	97	516	100
DPA-010-060-150	60	15	178	153	572	100
DPA-010-120-075	120	7.5	298	97	686	150
DPA-010-120-150	120	15	298	153	742	150

理論出力及空氣消耗量（往返一次之耗氣量）：

Theoretical force & Consumption（The values for a complete "down stroke/return" cycle）：

編碼	總出力/kg	回程拉力/kg	耗氣量(往返一次)/L
DPA-020-060-075	(410.8 x Pd)	(40.6 x Pd)	(1.077 x Pd + 1.112) / 1.033
DPA-020-060-150			(1.630 x Pd + 1.683) / 1.033
DPA-020-120-075			(1.505 x Pd + 1.554) / 1.033
DPA-020-120-150			(20.58 x Pd + 2.125) / 1.033

註 1).Pd:氣壓源(Driven pressure)-- kg/cm²

舉例：設增壓缸規格為 DPA-020-060-150，當操作壓力為 5 kg/cm²，則增壓缸總出力及往返一次之耗氣量為：410.8 ×5 = 2054 kg；(1.630 ×5 + 1.683) = 9.52ℓ

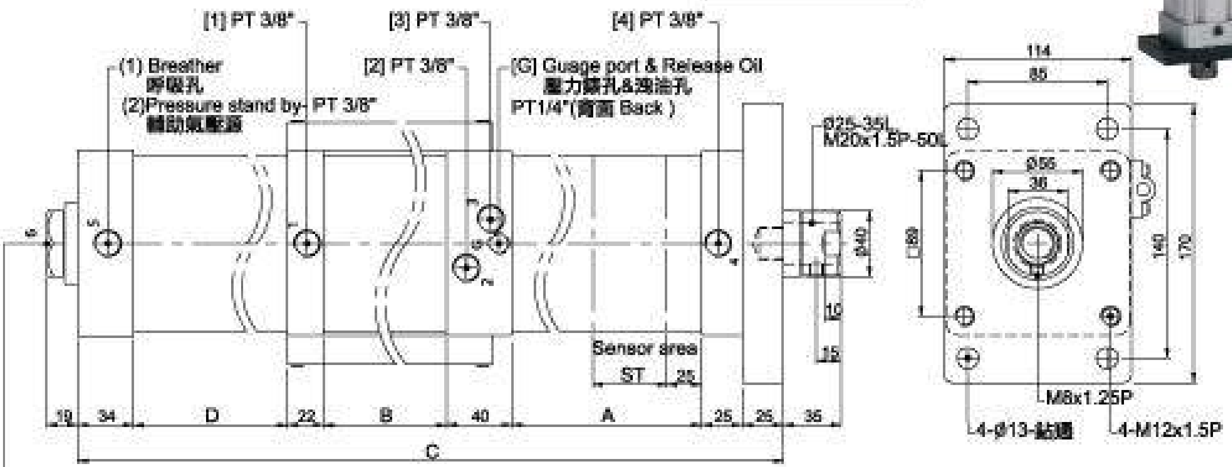
Example 1：If the power unit code No. DPA-020-060-150 , operating pressure is 5 kg/cm², so force of the Power unit Cylinder and the consumption for a complete "down stroke/return" cycle is： 410.8 ×5 = 2054 kg；(1.630 ×5 + 1.683) = 9.52ℓ

DETER
® FLUID-Technik

預壓式出力3噸增壓缸
Approach Operated/ 3 Ton

DPA	030	060	075	DHP	S2
系列 Series	增壓出力 Working Force	總行程 Total strok	增壓行程 Working stroke	增壓缸配件 Accessories	感應器 Sensor
預壓式	3噸 Ton	60mm - 060 120mm -120	7.5mm - 075 15mm - 150	模具座墊-DHP Die Holder Pad 末端棒-DRE Rod End 請參閱第22頁 Reference page 22 空白表示不需要 Blank is no needed	1Pcs-S1 2Pcs-S2

外觀尺寸Dimensional Features（單位：mm）：



[6] Oil cap
注油口 PF 1"(Use R-32 or ISO#32 Oil)

單位：mm

產品編號 Code No.	總行程 Total stroke	增壓行程 Working stroke	A	B	C	D
DPA-030-060-075	60	7.5	182	99	527	100
DPA-030-060-150	60	15	182	158	586	100
DPA-030-120-075	120	7.5	302	99	697	150
DPA-030-120-150	120	15	302	158	756	150

理論出力及空氣消耗量（往返一次之耗氣量）：
Theoretical force & Consumption（The values for a complete "down stroke/return" cycle）：

編碼	總出力/kg	回程拉力/kg	耗氣量(往返一次)/L
DPA-030-060-075	(674.6 x Pd)	(66 x Pd)	(1.796 x Pd + 1.855) / 1.033
DPA-030-060-150			(2.692 x Pd + 2.779) / 1.033
DPA-030-120-075			(2.546 x Pd + 2.629) / 1.033
DPA-030-120-150			(3.440 x Pd + 3.552) / 1.033

註 1).Pd:驅壓源(Driven pressure)-- kg/cm^2

舉例：設增壓缸規格為 DPA-030-120-150，當操作壓力為 7 kg/cm^2，則增壓缸總出力及往返一次之耗氣量為：674.6 ×7＝4722 kg；(3.440 ×7＋3.552)＝26.75ℓ

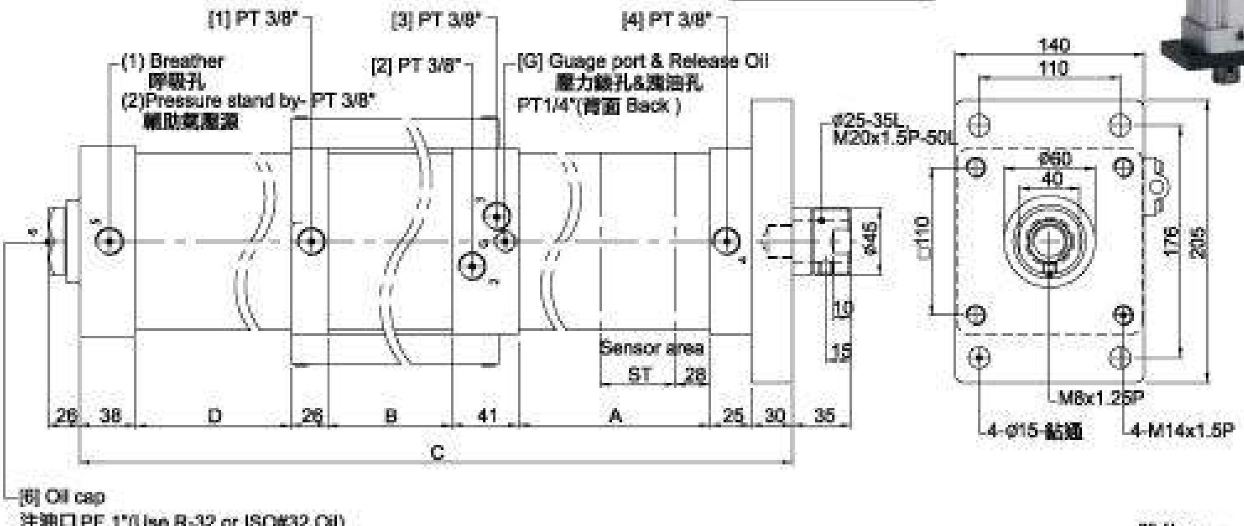
Example 1：If the power unit code No. DPA-030-120-150 , operating pressure is 7 kg/cm^2, so force of the Power unit Cylinder and the consumption for a complete "down stroke/return" cycle is： 674.6 ×7＝4722.2 kg；(3.440 ×7＋3.552)＝26.75ℓ

預壓式出力5噸增壓缸
Approach Operated/ 5 Ton

DPA — 050 — 060 — 075 + DHP + S2

DPA	050	060	075	DHP	S2
系列 Series	增壓出力 Working Force	總行程 Total strok	增壓行程 Working stroke	增壓缸配件 Accessories	感應器 Sensor
預壓式	5噸 Ton	60mm - 060 120mm -120	7.5mm - 075 15mm - 150	模具座墊-DHP Die Holder Pad 末端桿-DRE Rod End 請參照第22頁 Reference page 22 空白表示不需要 Blank is no needed	1Pcs-S1 2Pcs-S2

外觀尺寸Dimensional Features（單位：mm）：



單位：m

產品編號 Code No.	總行程Total stroke	增壓行程 Working stroke	A	B	C	D
DPA-050-060-075	60	7.5	188	107	555	100
DPA-050-060-150	60	15	188	167	615	100
DPA-050-120-075	120	7.5	308	107	725	150
DPA-050-120-150	120	15	308	167	785	150

理論出力及空氣消耗量（往返一次之耗氣量）：

Theoretical force & Consumption（The values for a complete "down stroke/return" cycle）：

編碼	總出力/kg	回程拉力/kg	耗氣量(往返一次)/L
DPA-050-060-075	(1075.8 x Pd)	(106.8 x Pd)	(2.882 x Pd + 2.976) / 1.033
DPA-050-060-150			(4.317 x Pd + 4.457) / 1.033
DPA-050-120-075			(4.067 x Pd + 4.199) / 1.033
DPA-050-120-150			(5.502 x Pd + 5.680) / 1.033

註 1).Pd:氣壓源(Driven pressure)-- kg/cm²

範例：設增壓缸規格為 DPA-050-120-150，當操作壓力為 5 kg/cm²，則增壓缸總出力及往返一次之耗氣量為：1075.8 ×5 = 5379 kg；(5.502 ×5 + 5.680) = 32.13ℓ

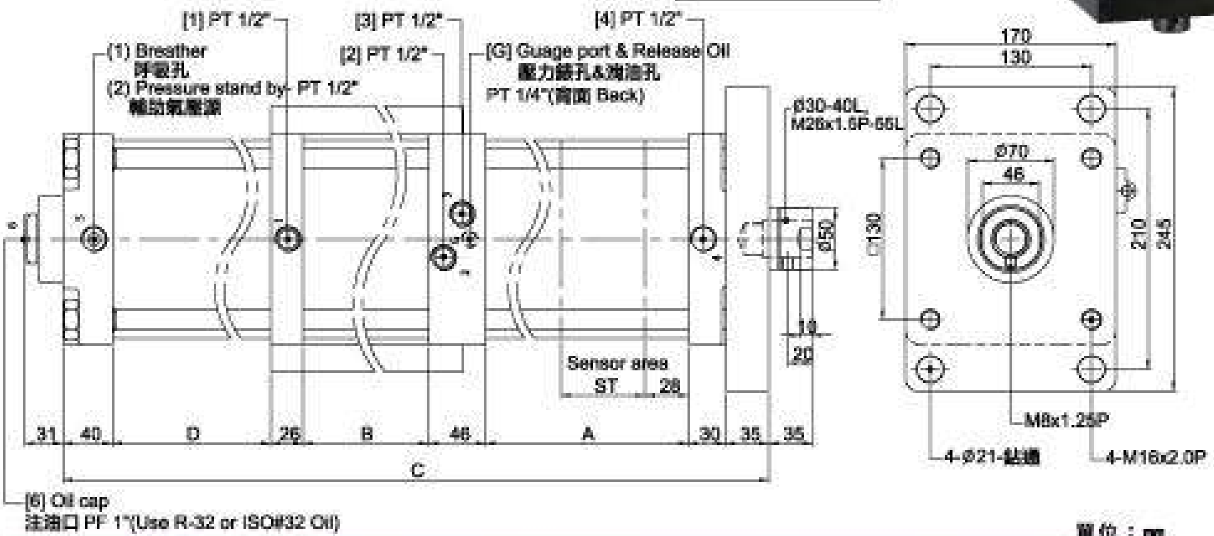
Example 1：If the power unit code No. DPA-050-120-150 , operating pressure is 5 kg/cm², so force of the Power unit Cylinder and the consumption for a complete "down stroke/return" cycle is： 1075.8 ×5 = 5379 kg；(5.502 ×5 + 5.680) = 32.13ℓ

預壓式出力7.5噸增壓缸
Approach Operated/ 7.5 Ton

DPA — 075 — 060 — 075 + DHP + S2

DPA	075	060	075	DHP	S2
系列 Series	增壓出力 Working Force	總行程 Total strok	增壓行程 Working stroke	增壓缸配件 Accessories	感應器 Sensor
預壓式	7.5噸 Ton	60mm - 060 120mm -120	7.5mm - 075 15mm - 150	模具座墊-DHP Die Holder Pad 末端棒-DRE Rod End 請參照第22頁 Reference page 22 空白表示不需要 Blank is no needed	1Pcs-S1 2Pcs-S2

外觀尺寸Dimensional Features（單位：mm）：



單位：mm

產品編號 Code No.	總行程 Total stroke	增壓行程 Working stroke	A	B	C	D
DPA-075-060-075	60	7.5	187	108	572	100
DPA-075-060-150	60	15	187	169	633	100
DPA-075-120-075	120	7.5	307	108	742	150
DPA-075-120-150	120	15	307	169	803	150

理論出力及空氣消耗量（往返一次之耗氣量）：

Theoretical force & Consumption（The values for a complete "down stroke/return" cycle）：

編碼	總出力/kg	回程拉力/kg	耗氣量(往返一次)/L
DPA-075-060-075	(1586.2 x Pd)	(157 x Pd)	(4.288 x Pd + 4.427) / 1.033
DPA-075-060-150			(6.392 x Pd + 6.600) / 1.033
DPA-075-120-075			(6.091 x Pd + 6.289) / 1.033
DPA-075-120-150			(8.196 x Pd + 8.462) / 1.033

註 1).Pd:驅壓源(Driven pressure)-- kg/cm²

舉例：設增壓缸規格為 DPA-075-060-075，當操作壓力為 5 kg/cm²，則增壓缸總出力及往返一次之耗氣量為：1586.2 ×5 = 7931 kg；(4.288 ×5 + 4.427) = 25.04ℓ

Example 1：If the power unit code No. DPA-075-060-075 , operating pressure is 5 kg/cm², so force of the Power unit Cylinder and the consumption for a complete "down stroke/return" cycle is： 1586.2 ×5 = 7931 kg；(4.288 ×5 + 4.427) = 25.04ℓ

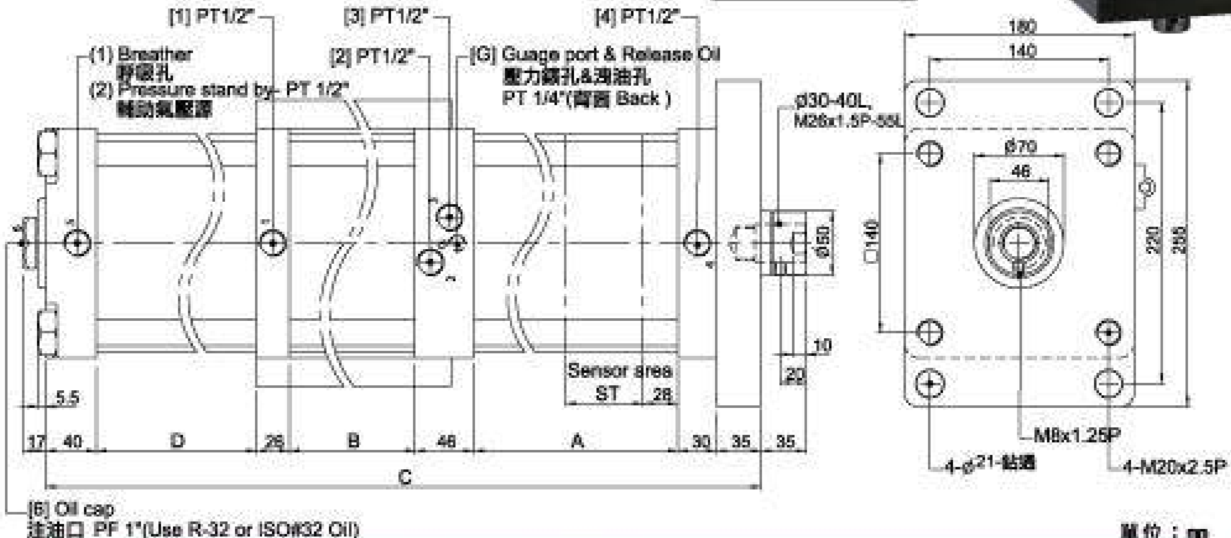
預壓式出力10噸增壓缸

Approach Operated/ 10 Ton

DPA — 100 — 060 — 075 + DHP + S2

系列 Series	增壓出力 Working Force	總行程 Total strok	增壓行程 Working stroke	增壓缸配件 Accessories	感應器 Sensor
預壓式	10噸 Ton	60mm - 060 120mm -120	7.5mm - 075 15mm - 150	模具座墊-DHP Die Holder Pad 末端桿-DRE Rod End 請參閱第22頁 Reference page 22 空白表示不需要 Blank is no needed	1Pcs-S1 2Pcs-S2

外觀尺寸Dimensional Features（單位：mm）：



單位：mm

產品編號 Code No.	總行程 Total stroke	增壓行程 Working stroke	A	B	C	D
DPA-100-060-075	60	7.5	187	121	585	100
DPA-100-060-150	60	15	187	195	659	100
DPA-100-120-075	120	7.5	307	121	755	150
DPA-100-120-150	120	15	307	195	829	150

理論出力及空氣消耗量（往返一次之耗氣量）：

Theoretical force & Consumption（The values for a complete "down stroke/return" cycle）：

編碼	總出力/kg	回程拉力/kg	耗氣量(往返一次)/L
DPA-100-060-075	(2153.8 x Pd)	(181.4 x Pd)	(5.435 x Pd + 5.612) / 1.033
DPA-100-060-150			(8.345 x Pd + 8.616) / 1.033
DPA-100-120-075			(7.531 x Pd + 7.776) / 1.033
DPA-100-120-150			(10.441 x Pd + 10.780) / 1.033

註 1).Pd:氣壓源(Driven pressure)-- kg/cm²

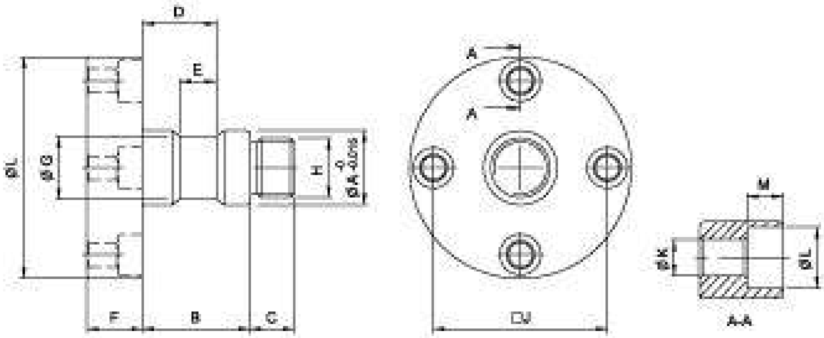
舉例：設增壓缸規格為 DPA-100-120-075，當操作壓力為 6 kg/cm²，則增壓缸總出力及往返一次之耗氣量為：2153.8 ×6 = 12923 kg；(7.531 ×6 + 7.776) = 51.27ℓ

Example 1：If the power unit code No. DPA-100-120-075 , operating pressure is 6 kg/cm², so force of the Power unit Cylinder and the consumption for a complete "down stroke/return" cycle is： 2153.8 ×6 = 12923 kg；(7.531 ×6 + 7.776) = 51.27ℓ

預壓式及直壓式增壓缸配件
Accessories For DPA/DPD

模具座墊 Die Holder Pad

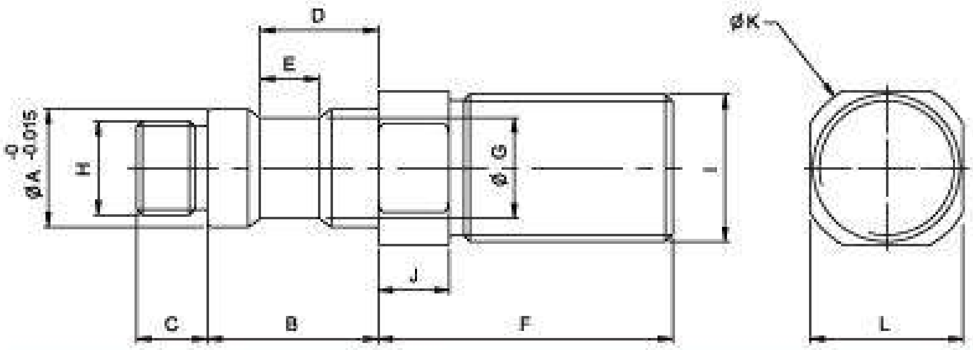
外觀尺寸Dimensional Features（單位：mm）：



產品編號 Code No.	適用規格	ØA	B	C	D	E	F	ØG	H	ØI	J	ØK	ØL	M
DHP-000-010-020	1T,2T	20	29	12	20	10	15	17	M16X1.5	60	47	6.5	11	6.5
DHP-000-030-050	3T,5T	25	34	12	20	10	15	22	M20X1.5	65	52	6.5	11	6.5
DHP-000-070-100	7.5T,10T	30	39	12	25	10	18	27	M26X1.5	85	67	8.5	13	8

末端桿 Rod End

外觀尺寸Dimensional Features（單位：mm）：



產品編號 Code No.	適用規格	ØA	B	C	D	E	F	ØG	H	I	J	ØK	ØL
DHP-000-000-010	1T	20	29	12	20	10	50	17	M16X1.5	M25X2.0	12	30	26
DHP-000-000-020	2T	20	29	12	20	10	50	17	M20X1.5	M30X2.0	16	35	32
DHP-000-000-030	3T	25	34	12	20	10	50	22	M20X1.5	M30X2.0	16	40	36
DHP-000-000-050	5T	25	34	12	20	10	50	22	M20X1.5	M40X2.0	20	45	42
DHP-000-070-100	7.5T,10T	30	39	12	25	10	60	27	M26X1.5	M40X2.0	20	50	46

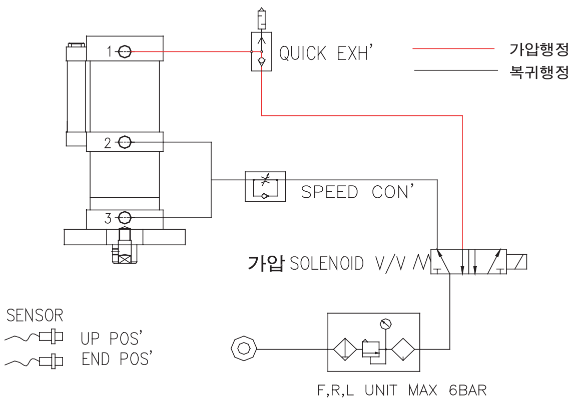
POWER UNIT CYLINDER–DPD series (direct operated)

1. 에어구동식으로압축공기 6bar를 공급하여 1ton~40ton의 힘으로 프레스를 할 수 있으며, 주문에 의해 그 이상의 톤(ton)도 제작 가능하다.
2. 에어구동식이므로 작업환경이 깨끗하다.
3. 에어구동식이므로 설치공간 활용도를 높일 수 있고 시스템 제어 및 A/S가 편리하다.
4. 에어구동식이므로 빠른 행정으로 생산량을 높일 수 있다.
5. 행정이 가압만 이루어진다.
6. 마그네트 기본 내장 타입으로 가압시간, 위치를 임의조절이 가능하다.
7. 스위치 : OPERATION VOLTAGE : 5~220V DC/AC

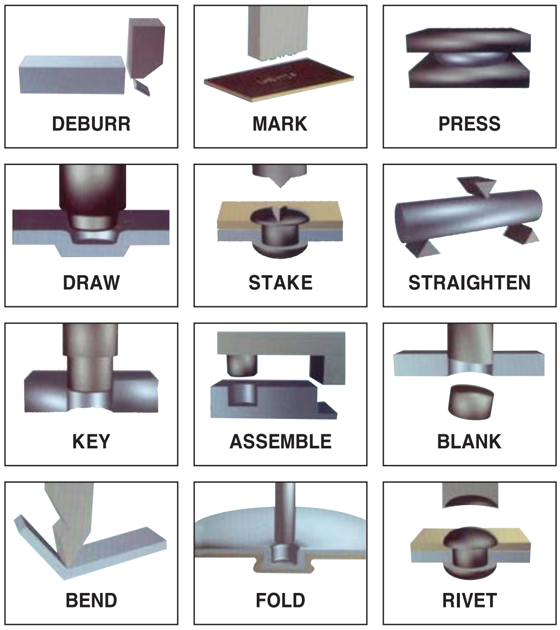
● DPD series 사양표

MODEL	WORKING STROKE	OPERATING PRESSURE(kg/㎠)							
		(kg)	1	2	3	4	5	6	7
DPD010 (1TON)	7.5mm 15mm	가압행정힘	194	389	584	779	974	1168	1363
		후퇴행정힘	24	48	72	96	120	144	168
DPD020 (2TON)		가압행정힘	380	760	1140	1520	1900	2280	2660
		후퇴행정힘	40	81	162	162	243	243	284
DPD030 (3TON)		가압행정힘	615	1231	1847	2463	3078	3694	4310
		후퇴행정힘	65	131	197	263	329	395	461
DPD050 (5TON)		가압행정힘	985	1970	2955	3940	4925	5910	6896
		후퇴행정힘	106	213	320	427	534	640	747
DPD075 (7.5TON)		가압행정힘	1442	2885	4327	5770	7212	8655	10098
		후퇴행정힘	157	314	471	628	785	942	1099
DPD100 (10TON)		가압행정힘	1986	3972	5958	7944	9930	11916	13902
		후퇴행정힘	181	362	544	725	907	1088	1270

● DPD series 표준회로도

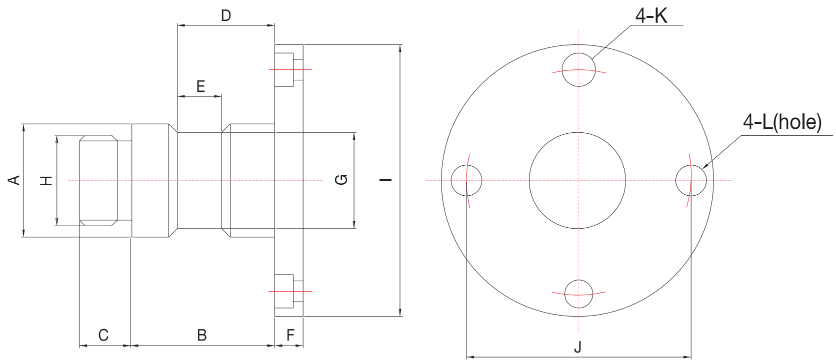


● 적용사례



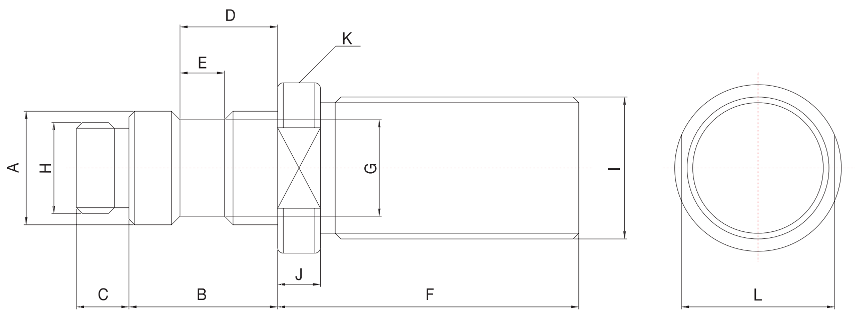
ACCESSORIES for DPA / DPD series

DIE HOLDER PAD



MODEL	POWER	A	B	C	D	E	F	G	H	I	J	K	L	M
DHP-000-000-010	1T	20	29	12	20	10	15	17	M16 × 1.5	60	47	6.5	11	6.5
DHP-000-000-020	2T	20	29	12	20	10	15	17	M16 × 1.5	60	47	6.5	11	6.5
DHP-000-000-030	3T	25	34	12	20	10	15	22	M20 × 1.5	65	52	6.5	11	6.5
DHP-000-000-050	5T	25	34	12	20	10	15	22	M20 × 1.5	65	52	6.5	11	6.5
DHP-000-000-075	7.5T	30	39	12	20	10	18	27	M26 × 1.5	85	67	8.5	13	8
DHP-000-000-100	10T	30	39	12	20	10	18	27	M26 × 1.5	85	67	8.5	13	8

ROD END



MODEL	POWER	A	B	C	D	E	F	G	H	I	J	K	L
DRE-000-000-010	1T	20	29	12	20	10	50	17	M16 × 1.5	M25 × 2.0	47	6.5	11
DRE-000-000-020	2T	20	29	12	20	10	50	17	M16 × 1.5	M30 × 2.0	47	6.5	11
DRE-000-000-030	3T	25	34	12	20	10	50	22	M20 × 1.5	M30 × 2.0	52	6.5	11
DRE-000-000-050	5T	25	34	12	20	10	50	22	M20 × 1.5	M40 × 2.0	52	6.5	11
DRE-000-000-075	7.5T	30	39	12	25	10	60	27	M26 × 1.5	M40 × 2.0	67	8.5	13
DRE-000-000-100	10T	30	39	12	25	10	60	27	M26 × 1.5	M40 × 2.0	67	8.5	13

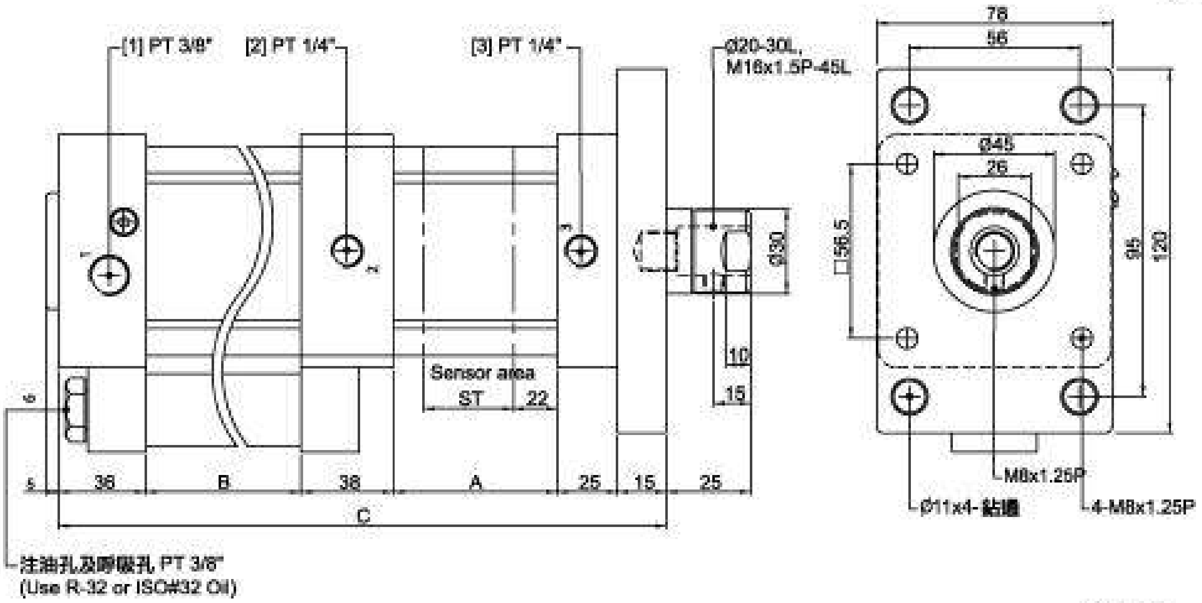
直壓式出力1噸增壓缸

Direct Operated/ 1 Ton

DPD — 010 — 000 — 075 ＋ DHP ＋ S2

系列 Series	增壓出力 Working Force	總行程 Total strok	增壓行程 Working stroke	增壓缸配件 Accessories	感應器 Sensor
直壓式	1噸 Ton	DPD-000	7.5mm - 075 15mm - 150	模具座墊-DHP Die Holder Pad 末端桿-DRE Rod End 請參照第22頁 Reference page 22 空白表示不需要 Blank is no needed	1Pcs-S1 2Pcs-S2

外觀尺寸Dimensional Features（單位：mm）：



單位：mm

產品編號 Code No.	增壓行程 Working stroke	A	B	C
DPD-010-000-075	7.5	61	81	256
DPD-010-000-150	15	76	128	318

理論出力及空氣消耗量（往返一次之耗氣量）：

Theoretical force & Consumption（The values for a complete "down stroke/return" cycle）：

編碼	總出力/kg	回程拉力/kg	耗氣量(往返一次)/L
DPD-010-000-075	(194.8 x Pd)	(24.2 x Pd)	(0.337 x Pd + 0.348) / 1.033
DPD-010-000-150			(0.639 x Pd + 0.660) / 1.033

註 1).Pd:氣壓源(Driven pressure)-- kg/cm^2

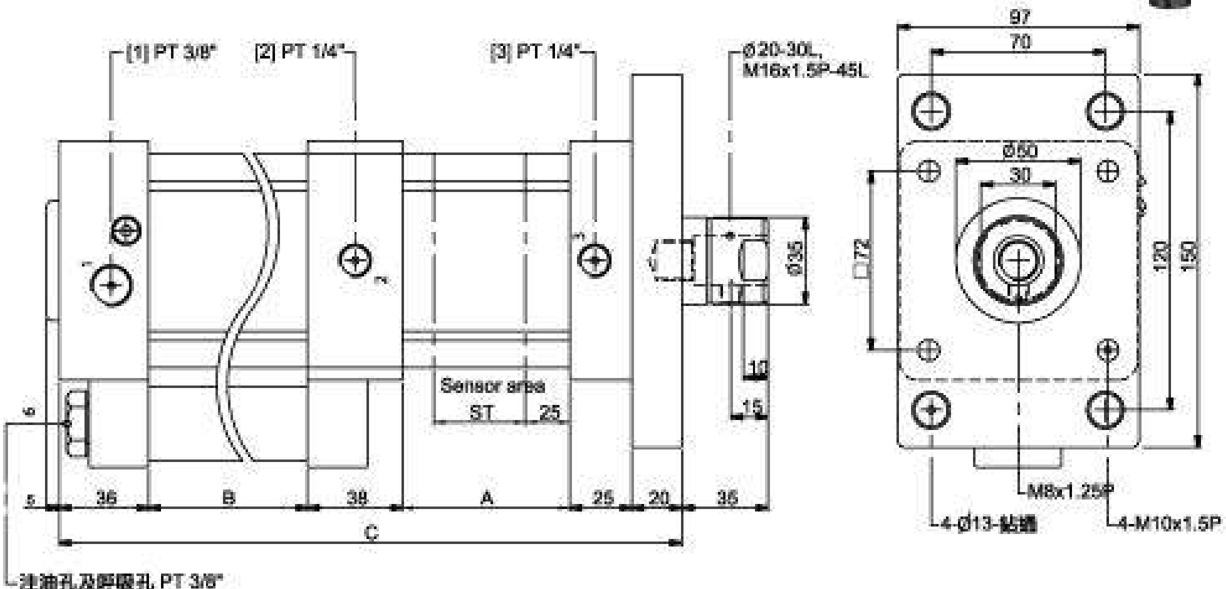
舉例：設增壓缸規格為 DPD-010-000-075，當操作壓力為 5 kg/cm^2，則增壓缸總出力及往返一次之耗氣量為：194.8 ×5 = 974 kg；(0.337 ×5 + 0.348) = 1.97ℓ

Example 1：If the power unit code No. DPD-010-000-075 , operating pressure is 5 kg/cm^2, so force of the Power unit Cylinder and the consumption for a complete "down stroke/return" cycle is： 194.8 ×5 = 974 kg；(0.337 ×5 + 0.348) = 1.97ℓ

直壓式出力2噸增壓缸
Direct Operated/ 2 Ton

DPD	020	000	075	+ DHP	+ S2
系列 Series	增壓出力 Working Force	總行程 Total strok	增壓行程 Working stroke	增壓缸配件 Accessories	感應器 Sensor
直壓式	2噸 Ton	DPD-000	7.5mm - 075 15mm - 150	模具座墊-DHP Die Holder Pad 末端棒-DRE Rod End 請參照第22頁 Reference page 22 空白表示不需要 Blank is no needed	1Pcs-S1 2Pcs-S2

外觀尺寸Dimensional Features（單位：mm）：



單位：mm

產品編號 Code No.	增壓行程 Working stroke	A	B	C
DPD-020-000-075	7.5	67	95	281
DPD-020-000-150	15	82	152	353

理論出力及空氣消耗量（往返一次之耗氣量）：

Theoretical force & Consumption（The values for a complete "down stroke/return" cycle）：

編碼	總出力/kg	回程拉力/kg	耗氣量(往返一次)/L
DPD-020-000-075	(380.2 x Pd)	(40.6 x Pd)	(0.642 x Pd + 0.663) / 1.033
DPD-020-000-150			(1.224 x Pd + 1.264) / 1.033

註 1).Pd:驅動壓(Driven pressure)-- kg/cm²

舉例：設增壓缸規格為 DPD-020-000-150，當操作壓力為 5 kg/cm²，則增壓缸總出力及往返一次之耗氣量為：380.2 ×5 = 1901 kg；(1.224 ×5 + 1.264) = 7.15ℓ

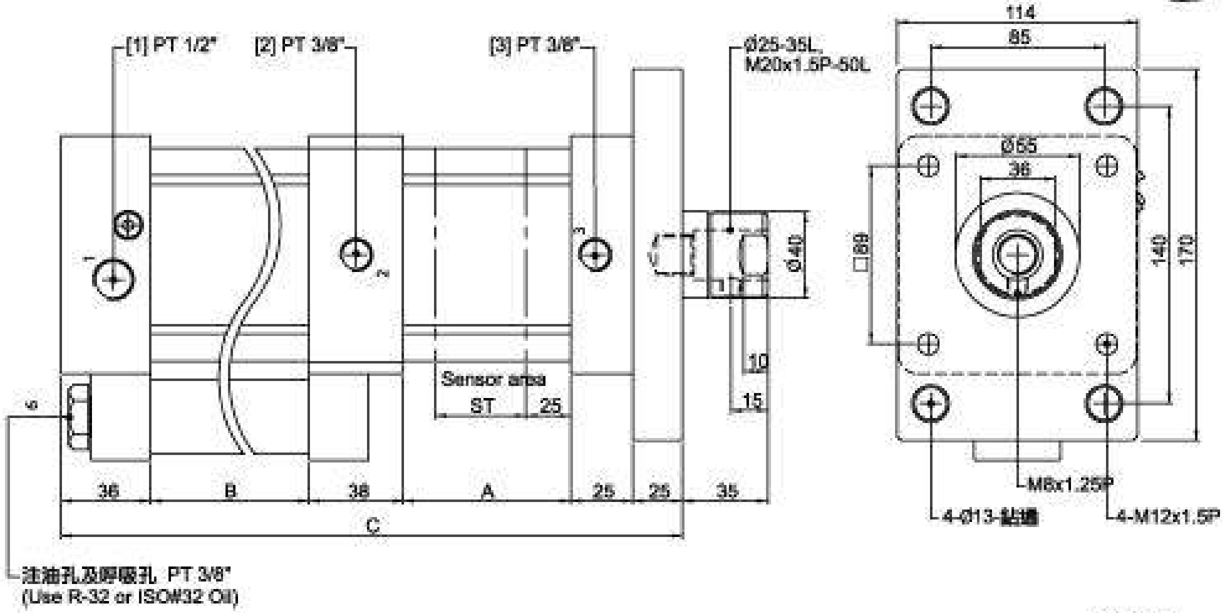
Example 1：If the power unit code No. DPD-020-000-150 , operating pressure is 5 kg/cm², so force of the Power unit Cylinder and the consumption for a complete "down stroke/return" cycle is： 380.2 ×5 = 1901 kg；(1.224 ×5 + 1.264) = 7.15ℓ

直壓式出力3噸增壓缸
Direct Operated/ 3 Ton

DPD — 030 — 000 — 075 + DHP + S2

系列 Series	增壓出力 Working Force	總行程 Total strok	增壓行程 Working stroke	增壓缸配件 Accessories	感應器 Sensor
直壓式	3噸 Ton	DPD-000	7.5mm - 075 15mm - 150	模具座墊-DHP Die Holder Pad 末端棒-DRE Rod End 請參照第22頁 Reference page 22 空白表示不需要 Blank is no needed	1Pcs-S1 2Pcs-S2

外觀尺寸Dimensional Features（單位：mm）：



單位：mm

產品編號 Code No.	增壓行程 Working stroke	A	B	C
DPD-030-000-075	7.5	71	97	294
DPD-030-000-150	15	86	156	368

理論出力及空氣消耗量（往返一次之耗氣量）：

Theoretical force & Consumption（The values for a complete "down stroke/return" cycle）：

編碼	總出力/kg	回程拉力/kg	耗氣量(往返一次)/L
DPD-030-000-075	(615.8 x Pd)	(66 x Pd)	(10.36 x Pd + 1.070) / 1.033
DPD-030-000-150			(1.980 x Pd + 2.044) / 1.033

註 1).Pd:氣壓源(Driven pressure)-- kg/cm²

範例：設增壓缸規格為 DPD-030-000-150，當操作壓力為 6 kg/cm²，則增壓缸總出力及往返一次之耗氣量為：615.8 ×6 = 3695 kg；(1.980 ×6 + 2.044) = 13.48ℓ

Example 1：If the power unit code No. DPD-030-000-150 , operating pressure is 6 kg/cm², so force of the Power unit Cylinder and the consumption for a complete "down stroke/return" cycle is： 615.8 ×6 = 3695 kg；(1.980 ×6 + 2.044) = 13.48ℓ

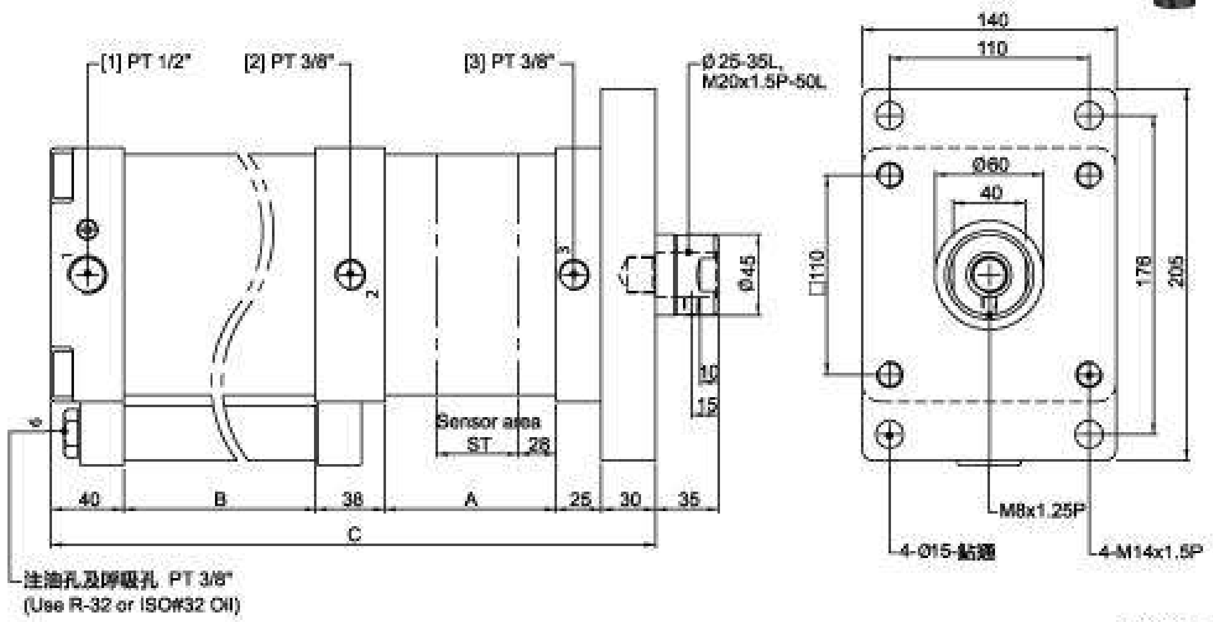
直壓式出力5噸增壓缸

Direct Operated/ 5 Ton

DPD — 050 — 000 — 075 + DHP + S2

DPD	050	000	075	DHP	S2
系列 Series	增壓出力 Working Force	總行程 Total strok	增壓行程 Working stroke	增壓缸配件 Accessories	感應器 Sensor
直壓式	5噸 Ton	DPD-000	7.5mm - 075 15mm - 150	模具座墊-DHP Die Holder Pad 末端棒-DRE Rod End 請參照第22頁 Reference page 22 空白表示不需要 Blank is no needed	1Pcs-S1 2Pcs-S2

外觀尺寸Dimensional Features（單位：mm）：



單位：mm

產品編號 Code No.	增壓行程 Working stroke	A	B	C
DPD-050-000-075	7.5	79	105	317
DPD-050-000-150	15	97	165	392

理論出力及空氣消耗量（往返一次之耗氣量）：

Theoretical force & Consumption（The values for a complete "down stroke/return" cycle）：

編碼	總出力/kg	回程拉力/kg	耗氣量(往返一次)/L
DPD-050-000-075	(985.2 x Pd)	(106.8 x Pd)	(1.658 x Pd + 1.711) / 1.033
DPD-050-000-150			(3.173 x Pd + 3.276) / 1.033

註 1).Pd:氣壓源(Driven pressure)-- kg/cm^2

舉例：設增壓缸規格為 DPD-050-000-075，當操作壓力為 6 kg/cm^2，則增壓缸總出力及往返一次之耗氣量為：985.2 ×6 = 5911 kg；(1.658 ×6 + 1.711) = 11.29ℓ

Example 1：If the power unit code No. DPD-050-000-075 , operating pressure is 6 kg/cm^2, so force of the Power unit Cylinder and the consumption for a complete "down stroke/return" cycle is： 985.2 ×6 = 5911 kg；(1.658 ×6 + 1.711) = 11.29ℓ

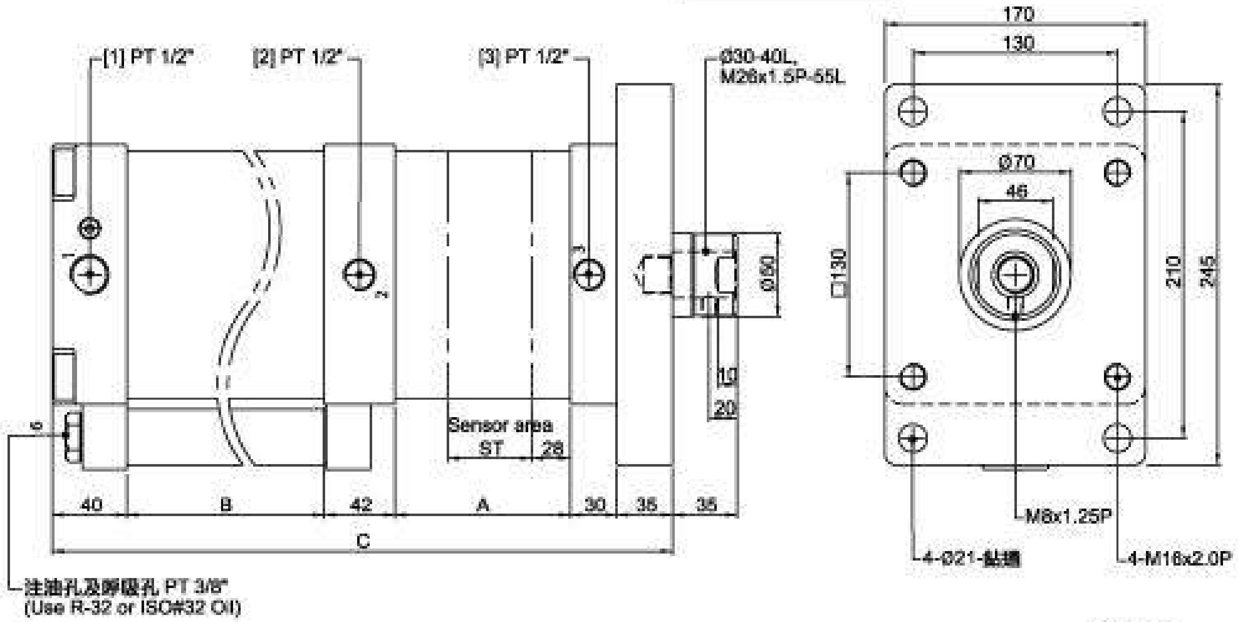
DETER
® FLUID-Technik

直壓式出力7.5噸增壓缸
Direct Operated/ 7.5 Ton

DPD — 075 — 000 — 075 + DHP + S2

DPD	075	000	075	DHP	S2
系列 Series	增壓出力 Working Force	總行程 Total strok	增壓行程 Working stroke	增壓缸配件 Accessories	感應器 Sensor
直壓式	7.5噸 Ton	DPD-000	7.5mm - 075 15mm - 150	模具座墊-DHP Die Holder Pad 末端棒-DRE Rod End 請參照第22頁 Reference page 22 空白表示不需要 Blank is no needed	1Pcs-S1 2Pcs-S2

外觀尺寸Dimensional Features（單位：mm）：



單位：mm

產品編號 Code No.	增壓行程 Working stroke	A	B	C
DPD-075-000-075	7.5	78	106	332
DPD-075-000-150	15	93	167	408

理論出力及空氣消耗量（往返一次之耗氣量）：

Theoretical force & Consumption（The values for a complete "down stroke/return" cycle）：

編碼	總出力/kg	回程拉力/kg	耗氣量(往返一次)/L
DPD-075-000-075	(1442.6 x Pd)	(157 x Pd)	(2.430 x Pd + 2.509) / 1.033
DPD-075-000-150			(4.653 x Pd + 4.804) / 1.033

註 1).Pd:氣壓源(Driven pressure)-- kg/cm^2

舉例：該增壓缸規格為 DPD-075-000-075，當操作壓力為 5 kg/cm^2，則增壓缸總出力及往返一次之耗氣量為：1442.6 ×5＝7213 kg；(2.430 ×5 + 2.509) = 14.19ℓ

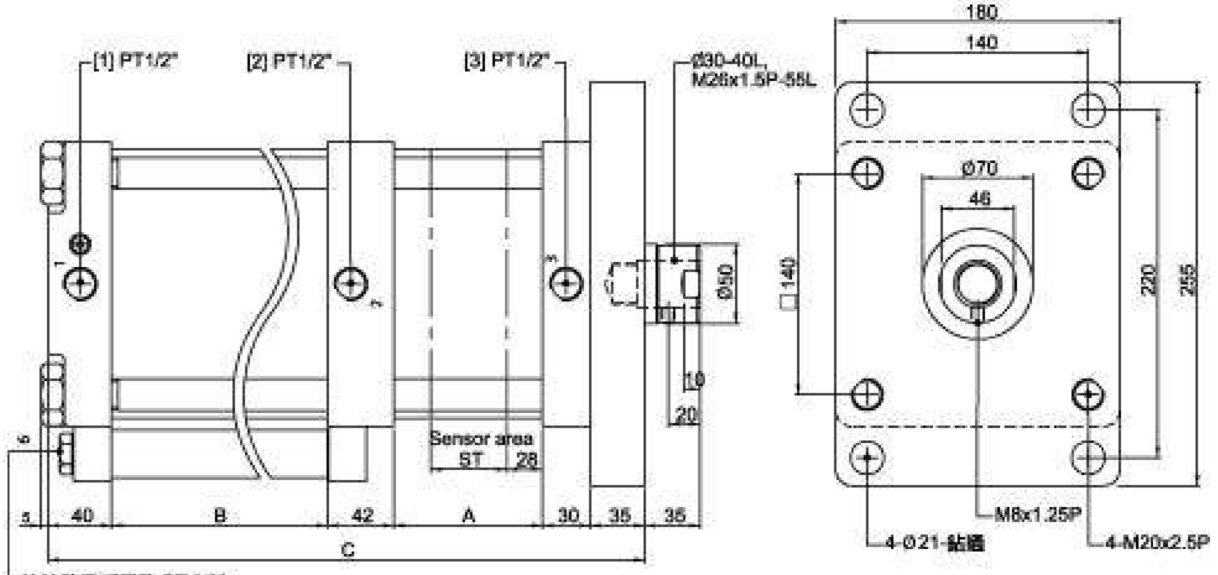
Example 1：If the power unit code No. DPD-075-000-075 , operating pressure is 5 kg/cm^2, so force of the Power unit Cylinder and the consumption for a complete "down stroke/return" cycle is： 1442.6 ×5 = 7213 kg；(2.430 ×5 + 2.509) = 14.19ℓ

直壓式出力10噸增壓缸
Direct Operated/ 10 Ton

DPD — 100 — 000 — 075 + DHP + S2

系列 Series	增壓出力 Working Force	總行程 Total strok	增壓行程 Working stroke	增壓缸配件 Accessories	感應器 Sensor
直壓式	10噸 Ton	DPD-000	7.5mm - 075 15mm - 150	模具座墊-DHP Die Holder Pad 末端桿-DRE Rod End 請參照第22頁 Reference page 22 空白表示不需要 Blank is no needed	1Pcs-S1 2Pcs-S2

外觀尺寸Dimensional Features（單位：mm）：



單位：mm

產品編號 Code No.	增壓行程 Working stroke	A	B	C
DPD-100-000-075	7.5	79	119	345
DPD-100-000-150	15	94	193	434

理論出力及空氣消耗量（往返一次之耗氣量）：

Theoretical force & Consumption（The values for a complete "down stroke/return" cycle）：

編碼	總出力/kg	回程拉力/kg	耗氣量(往返一次)/L
DPD-100-000-075	(1986 x Pd)	(181.4 x Pd)	(3.279 x Pd + 3.386) / 1.033
DPD-100-000-150			(6.324 x Pd + 6.529) / 1.033

註 1).Pd:氣壓源(Driven pressure)-- kg/cm^2

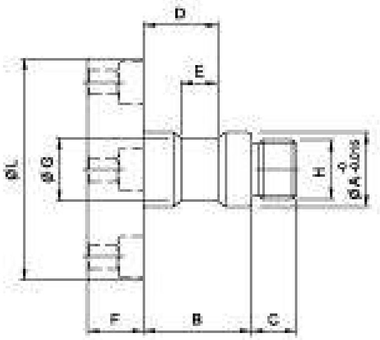
舉例：設增壓缸規格為 DPD-100-000-150，當操作壓力為 7 kg/cm^2，則增壓缸總出力及往返一次之耗氣量為：1986 ×7 = 13902 kg (6.324 ×7 + 6.529) = 49.17ℓ

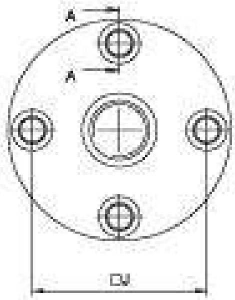
Example 1：If the power unit code No. DPD-100-000-150 , operating pressure is 5 kg/cm^2, so force of the Power unit Cylinder and the consumption for a complete "down stroke/return" cycle is： 1986 ×7 = 13902 kg (6.324 ×7 + 6.529) = 49.17ℓ

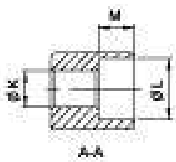
預壓式及直壓式增壓缸配件
Accessories For DPA/DPD

模具座墊 Die Holder Pad

外觀尺寸Dimensional Features（單位：mm）：



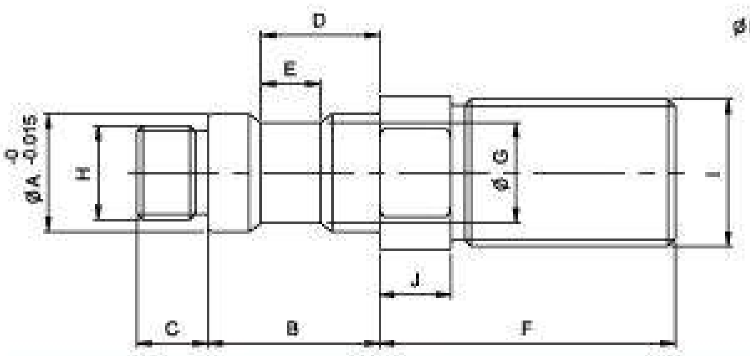


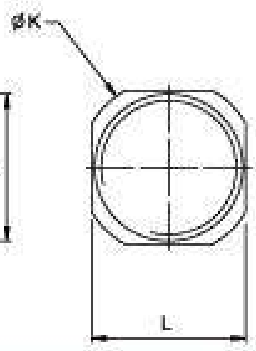


產品編號 Code No.	適用規格	ØA	B	C	D	E	F	ØG	H	ØI	J	ØK	ØL	M
DHP-000-010-020	1T,2T	20	29	12	20	10	15	17	M16X1.5	60	47	6.5	11	6.5
DHP-000-030-050	3T,5T	25	34	12	20	10	15	22	M20X1.5	65	52	6.5	11	6.5
DHP-000-070-100	7.5T,10T	30	39	12	25	10	18	27	M26X1.5	85	67	8.5	13	8

末端桿 Rod End

外觀尺寸Dimensional Features（單位：mm）：





產品編號 Code No.	適用規格	ØA	B	C	D	E	F	ØG	H	I	J	ØK	ØL
DHP-000-000-010	1T	20	29	12	20	10	50	17	M16X1.5	M25X2.0	12	30	26
DHP-000-000-020	2T	20	29	12	20	10	50	17	M20X1.5	M30X2.0	16	35	32
DHP-000-000-030	3T	25	34	12	20	10	50	22	M20X1.5	M30X2.0	16	40	36
DHP-000-000-050	5T	25	34	12	20	10	50	22	M20X1.5	M40X2.0	20	45	42
DHP-000-070-100	7.5T,10T	30	39	12	25	10	60	27	M26X1.5	M40X2.0	20	50	46

Direct Operated Working 파워 유니트 실린더

1. 파워유니트 실린더와 5/2way 싱글 solenoid valve 일체형으로 compact 하다.
2. Working Power : 700kg(at 5bar)
3. Working Stroke : 9mm
4. Return Power : 93kg(at 5bar)
5. 행정이 가압만 이루어지므로 속도가 빠르다.
6. 적용분야 : TOOL CHANGE 등
7. 솔레노이드밸브 전압 : DC12,48,110V / AC24,48,110,220V
8. 에어구동방식으로 파워유니트실린더와 5/2way 솔레노이드 밸브 일체형으로 가압행정만 동작한다.

▷ DIMENSIONS