

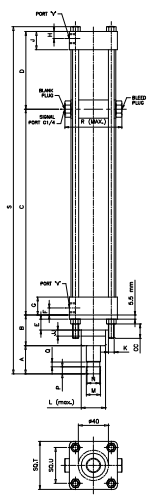
Impact Cylinders ZM/3000

Important:

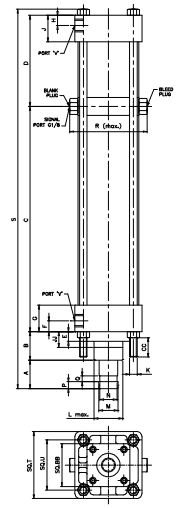
For all the applications complete guarding must be incorporated either fixed or interlocked with the control circuit.

For full details of the Nucon Cylinder range consult the Nucon Technical service.

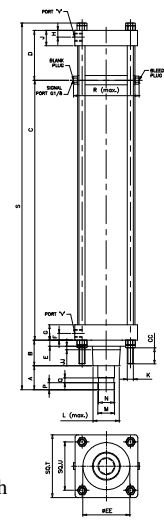
Type	∅ (Inch)	Energy at 5.5 bar (80 psig) Inch tons	Typical Capacity	20 swg	Equivalent average Tonnage when Work through 16 swg	10 swg	Free-air Consumption/cy cle At 5.5 bar(80 psi) Liters Cubic ft	Max Per Minute	Control Valve Size
ZM/3020	2	0.1	Marking	2.7 ton	1.5 ton	0.7 ton	5.7 0.2	60	1 / 4" B.S.P
ZNCN/3030	3	0.25	Crimping	6.9 ton	3.9 ton	1.9 ton	12.8 0.45	50	1 / 4" B.S.P
ZNCN/3040	4	0.5	Piercing	13.0 ton	7.8 ton	3.9 ton	22.8 0.8	40	1 / 2" B.S.P
ZNCN/3060	6	1	Light Presswork	27.0 ton	15.0 ton	7.0 ton	51.3 1.81	35	1 / 2" B.S.P



Type ZM/3020



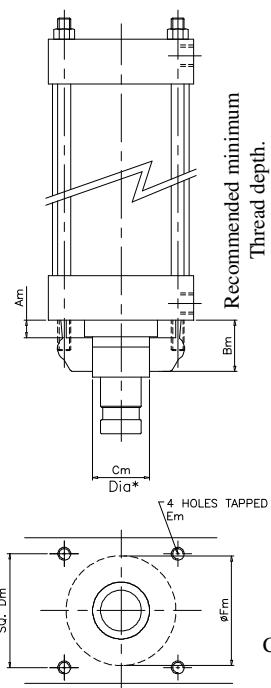
Types ZNCN/3020 & ZNCN/3040



Types ZNCN/3060

The Bleed Plug and Bank Plug are interchangeable

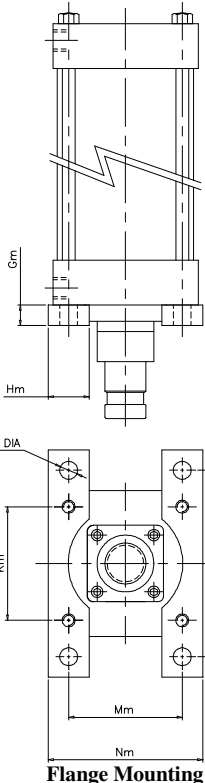
Close tolerance location dia. For length JJ



Constructional dimensions for direct Nose Mounting on to a Steel Plate
 For attitudes other than vertically down or up arear support should be added

*Notice:- The mojority of application have the tooling aligned with the piston rod after installation of the cylinder therefore accurate location is not required and clearance hole Fm can be taken through the full plate thickness

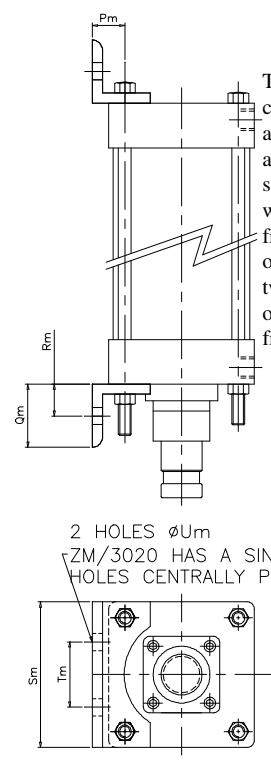
Clearance dia for depth A^om



Flange Mounting

These styles can be assembled in line with of at 90 deg. To the cylinder ports

Style G front only
 Style BG rear & front
 Style B rear only.
 This is threaded Similarly to style G And should be only be Used in addition to Some other form of Front mounting.



Side Mounting Style C

This style can be assembled adjacent sides or with the front parts only from two pairs on the front

2 HOLES øUm
 ZM/3020 HAS A SINGLE HOLES CENTRALLY PLACE

DIMENSIONS: Basic Cylinder, Mountings B,C,G,BG and Nose mounting

Model	A	B	C	D	E	F	G	H	J	K	Ø L
ZM/3020	37.5	35	279	103	14.3	9.5	24	9.5	24	M8	31.7
ZNCN/3030	37.5	38	299	121	12.7	13.5	35	13.5	35	M10	38
ZNCN/3040	44.5	44.5	297	117	12.7	13.5	35	13.5	35	M10	44.5
ZNCN/3060	63.5	68	302	132	15.9	23.8	43	18.5	41	M16	69.8

Model	ØM	ØN	P	Q	R	S	T	U	V	AA	BB	CC	EE	JJ
ZM/3020	19	17.5	9.5	6	76	461	63.5	47.6	G1/4	-	-	19	-	8
ZNCN/3030	25.4	23	9	8	103	508	89	66.7	G3/8	-	57	25	-	8
ZNCN/3040	32	28.5	11	9.5	129	516	114	88.9	G3/8	-	60	32	-	8
ZNCN/3060	44.5	40.5	19	12.7	181	587	167	128.6	G1/2	10	-	43	125	9.5

Nose Mounting on to plate

Model	Am	Bm	Cm	Dm	Em	Fm
ZM/3020	10.3	25	31.7	47.6	M8	43
ZNCN/3030	14.2	40	38.1	66.7	M10	78
ZNCN/3040	14.2	50	44.5	88.9	M10	86
ZNCN/3060	35	50	69.8	128.6	M16	130.2

Side Mounting style C

Model	Pm	Qm	Rm	Sm	Tm	Um
ZM/3020	19	30	19	63	-	13
ZNCN/3030	19	30	19	91	28.6	12
ZNCN/3040	25.5	50	25.5	114	51	14
ZNCN/3060	35	60	35	167	70	17

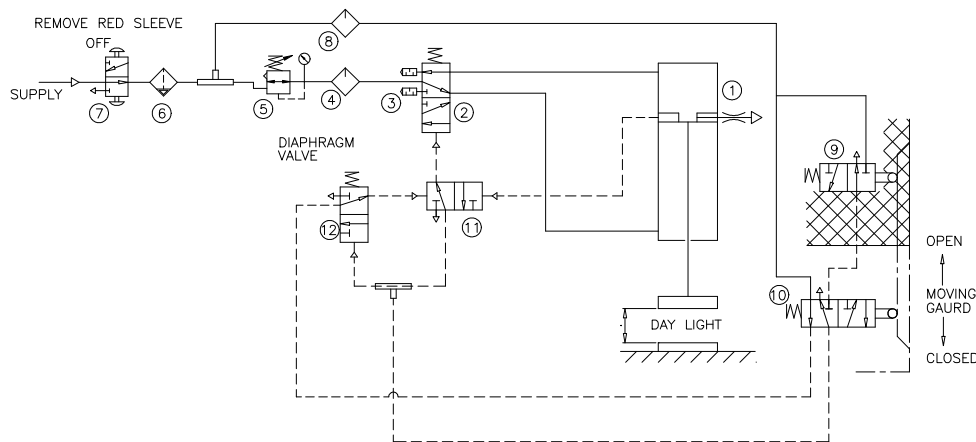
Flange Mounting Styles B,BG and G

Model	Gm	Hm	Jm	Km	Lm	Mm	Nm
ZM/3020	12.7	16	105	85.7	8.7	47.5	63.5
ZNCN/3030	16	22	133	111	10.3	66.7	89
ZNCN/3040	16	32	178	146	13.5	89	114
ZNCN/3060	20	40	243	205	16.7	128.5	167

Reference numbers for mountings

Model	Style G	Style BG	Style B	Style C
ZM/3020	ZQM/871	ZQM/1182	ZQM/875	ZQM/752
ZNCN/3030	ZQM/984	ZQM/1185	ZQM/878	ZQM/983
ZNCN/3040	ZQM/987	ZQM/1187	ZQM/887	ZQM/982
ZNCN/3060	ZQM/884/1	ZQM/1189	ZQM/884/2	ZQM/826

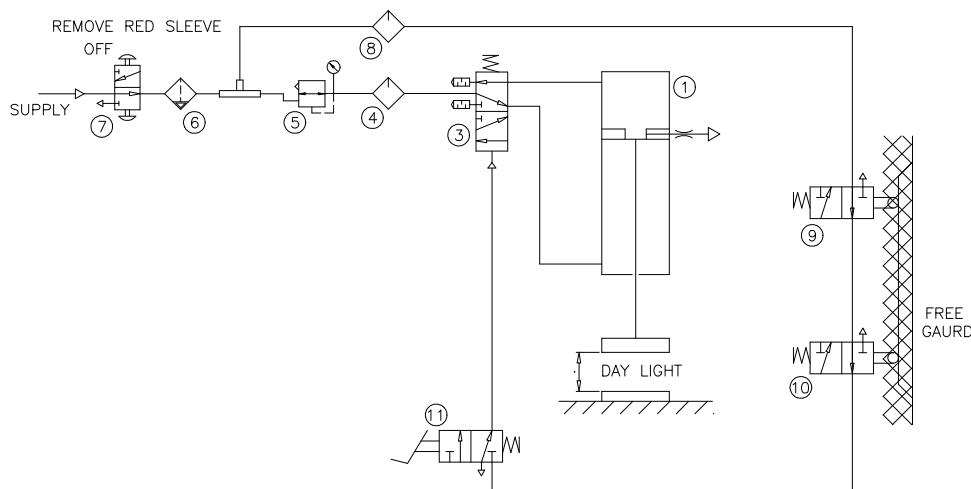
EXAMPLES OF BASIC CIRCUITS



Normal automatic return Guard operated

A cycle is initiated by closing the guard which releases valve (9) and operates valve (10). The signal obtained passes through valve (11) to operate the main control valve (2) which fires the impact cylinder. Valve (12) is also operated and this prevents a resetting signal from being applied to valve (11). The air signal obtained from the signal port of the impact cylinder which it fires operates valve (11). This causes it to exhaust the signal given to valve (2) which resets, and the impact cylinder returns. The guard must then be opened to remove the signal from valve (12) and give it a supply that will reset valve (11) ready for a further operation.

The guard valve (9) is connected up 'normally open' and is in series with valve (10). The length of the cam on the guard and sitting of the trip valves should be arranged so that valve (9) is held operated, and valve (10) is not operated until the guard is closed. Pressure adjustments to the impact cylinder from the regulator (5) do not affect the rest of the circuit, as a separate supply is taken off after the stop valve (7) and filter unit (6). Two lubricators (4) and (8) are used for maximum efficiency.



Manual or delayed return Foot operated

The fixed guard applied to this circuit uses as a safety interlock two normally closed valves (9) and (10) in series, and these should be spaced widely apart to give a good indication that the guard is properly located. The impact cylinder is fired by operating the foot pedal and will remain out stroked unit the pedal is released.