



Metchem Industries

Where Hydraulic Cylinders Are Made At The Fastest Time



GARUDA

HYDRAULIC CYLINDERS

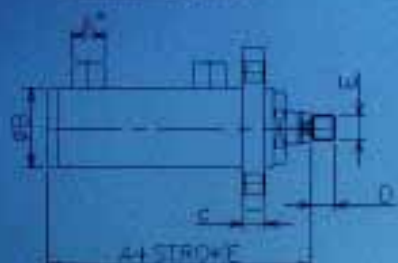
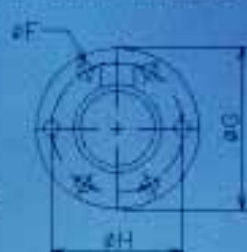
GARUDA

CLAMP CYLINDERS

Hydraulic cylinders

GH1**GARUDA CIRCULAR OR RECTANGULAR FLANGE****Features**

1. Working pressure - 160 Bar
2. Testing pressure - 210 Bar
3. Type Of Mounting - Circular & Rectangular

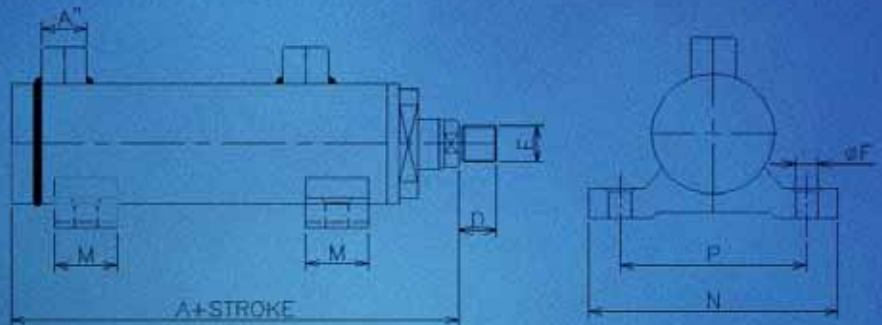
FRONT FLANGE**CIRCULAR FLANGE****RECTANGULAR FLANGE****DESCRIPTION**

GH 1 SERIES This type of cylinders are used as replacement for tie rod construction type, where lower working pressure are required. This is widely used due to faster manufacturing time, majorly used for assembly machines, moulds for actuating side cores & ejector assembly.

BORE	40	50	63	80	100	125	160
ROD	16/25	25/30	28/36	40/50	50/70	70/90	90/100
A	144	149	165	199	220	225	305
B	50	60	73	95	115	145	185
C	12	15	18	20	25	28	35
D	25	30	35	38	45	60	70
E	M16 x1.5	M16 x2	M20 x2	M24 x2	M36 x2	M36 x2	M30 x2
F	11	13	13	13	15	17	22
G	110	130	145	170	195	250	350
H	90	100	115	140	160	210	290
I	110	130	145	170	210	225	320
J	84	77	90	120	150	185	240
K	87	105	120	138	168	208	268
L	21	52	65	86	100	135	170
A*	1	1	1	2	2	2	1
	100	100	100	100	100	100	100

GH2**GARUDA FOOT MOUNT****Features**

1. Working pressure - 160 Bar
2. Testing Pressure - 210 Bar
3. Type of Mounting - Foot Mount

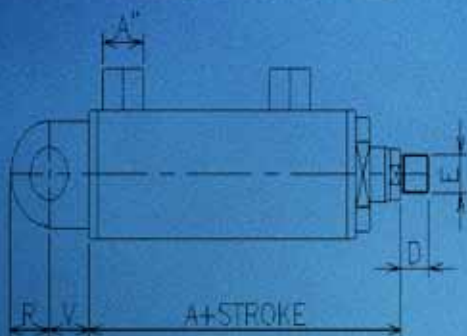
**DESCRIPTION**

GH 2 SERIES We are manufacturing foot mounted hydraulic cylinders, which come with compact construction and easy-to-maintain functions. These foot mounted hydraulic cylinders are used in gate valve operating systems, power steering application etc.,

BORE	40	50	63	80	100	125	160
ROD	16/ 25	25/ 30	28/ 36	40/ 50	50/ 70	70/ 90	90/ 100
A	144	149	165	199	220	225	305
D	25	30	35	35	45	50	70
E	M16 x1.5	M18 x2	M20 x2	M24 x2	M36 x2	M56 x2	M80 x2
F	11	13	13	13	15	17	22
M	40	40	50	50	60	60	70
N	110	120	150	185	230	285	380
P	80	90	115	140	175	225	290
A''	1/2" BSP	3/8" BSP	1/2" BSP	3/4" BSP	1" BSP	1 1/4" BSP	1" BSP

GH3**GARUDA MALE AND FEMALE CLEVIS****Features**

1. Working Pressure- 160 Bar
2. Testing Pressure- 210 Bar
3. Type Of Mounting- Male & Female

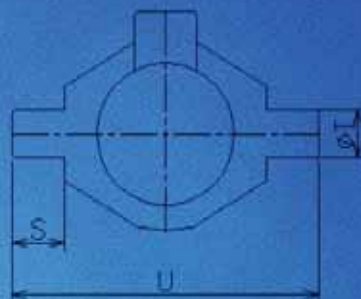
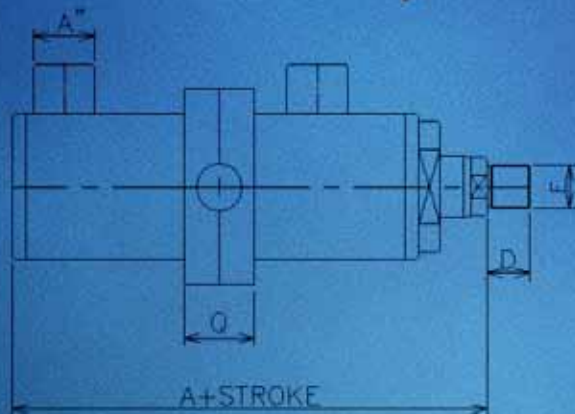
BOTH END CLEVISMALE CLEVISFEMALE CLEVIS**DESCRIPTION**

GH 3 SERIES Female clevis cylinder are used Marjory in earth moving applications, Furnace tilting areas, lifting applications, there are two types of option available in this series with both male & female clevis designs.

BORE	40	50	63	80	100	125	160
ROD	16/25	25/30	28/36	40/50	50/70	70/90	90/100
A	144	149	165	199	220	225	305
D	25	30	35	35	45	50	70
E	M16 x1.5	M18 x2	M20 x2	M24 x2	M36 x2	M56 x2	M80 x2
R	25	30	35	40	50	60	95
V	30	35	40	50	60	70	100
W	20	25	32	40	45	50	80
X	20	25	30	35	45	50	80
Y	15	20	25	35	40	45	70
Z	10	10	10	15	15	15	25
A''	70SP	70SP	70SP	70SP	70SP	70SP	170SP

GH4**GARUDA INTERMEDIATE TRUNNION****Feature**

1. Working Pressure- 160 Bar
2. Testing Pressure- 210 Bar
3. Type Of Mounting- Trunnion

**DESCRIPTION**

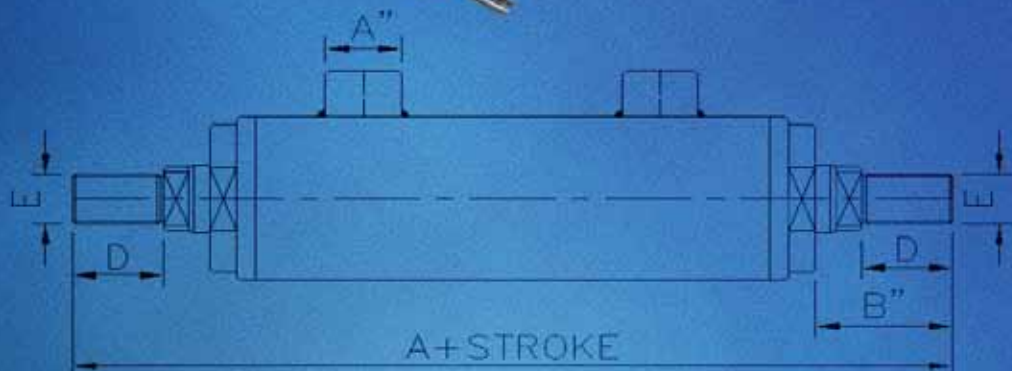
GH 4 SERIES Intermediate Trunnion are Double acting operate with single rod construction.

- Designed to give a high degree of reliability in all hydraulic applications.
- This type of cylinders are used where more degree of

BORE	40	50	63	80	100	125	160
ROD	16/25	25/30	28/35	40/50	50/70	70/90	90/100
A	144	149	165	199	220	225	305
D	25	30	35	35	45	50	70
E	M16 x1.5	M18 x2	M20 x2	M24 x2	M36 x2	M56 x2	M80 x2
Q	30	35	45	50	55	60	70
S	20	25	35	40	45	50	65
T	20	25	35	40	45	50	60
U	105	130	165	200	240	285	390
A''	1/4" BSP	3/8" BSP	3/8" BSP	1/2" BSP	1/2" BSP	3/4" BSP	1" BSP

GH5**GARUDA DOUBLE END ROD****Features**

1. Working pressure- 160 Bar
2. Testing Pressure- 210 Bar

**DESCRIPTION**

GH 5 SERIES Double rod end cylinders operate with a single piston and two opposing rods. As one extends, the other retracts. As a result, the two ends can do reciprocal work in positioning or in moving a work piece with equal

BORE	40	50	63	80	100	125	160
ROD	16/25	25/30	28/36	40/50	50/70	70/90	90/100
A	222	222	242	242	262	262	272
D	25	30	35	35	45	50	60
E	M16 x1.5	M18 x2	M20 x2	M24 x2	M36 x2	M56 x2	M80 x2
A''	1/4" BSP	3/8" BSP	3/8" BSP	1/2" BSP	1/2" BSP	3/4" BSP	1" BSP
B''	40	45	50	50	60	65	75

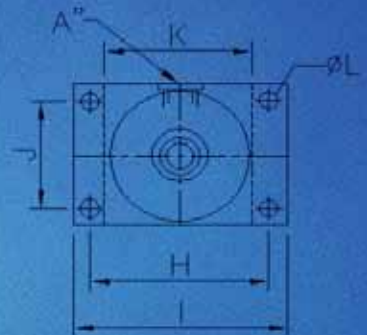
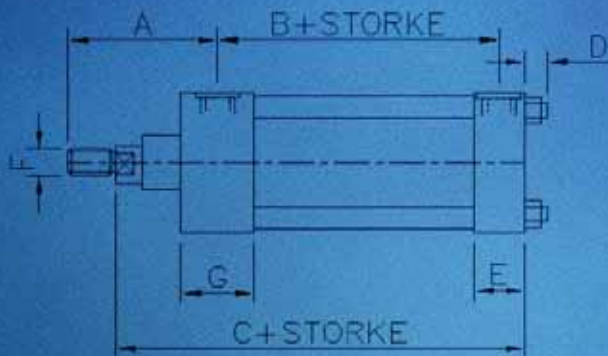
GH6

GARUDA TIE ROD



Features

1. Working Pressure- 160 Bar
2. Testing pressure- 210 Bar
3. Type Of Mounting-Square, Rectangular.



DESCRIPTION

GH 6 SERIES We are offering technically advanced Tie-Rod Construction Cylinders using state-of-the-art machines. These Hydraulic Cylinders are known for high functionality and superior performance. Good quality imported & Domestic seals are used to prove the quality. And these hydraulic cylinders are catering to the requirements of machine tools, plastic and rubber moulding machines, general engi-

BORE	40	50	63	80	100	125	160
ROD	16/25	25/30	28/36	40/50	50/70	70/90	90/100
A	63	67	74	80	86	86	90
B	67	71	73	86	93	106	122
C	153	159	168	190	203	216	245
D	10	14	14	18	18	24	29
E	40	40	40	47	48	50	63
F	M16 x1.5	M18 x2	M20 x2	M24 x2	M36 x2	M58 x2	M80 x2
G	45	45	45	52	53	55	63
H	87	105	117	149	162	208	253
I	110	130	142	181	193	248	305
J	41	52	65	83	97	126	155
K	64	77	90	115	128	166	204
L	11	14	14	18	18	22	26
A''	1.5	1.5	1.5	1.5	1.5	1.5	1.5

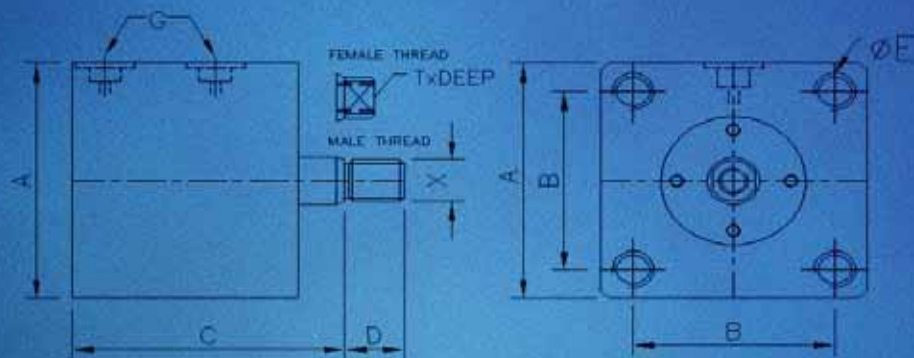
GC1

GARUDA CLAMP BLOCK



Features

1. WORKING PRESSURE: 70BAR
2. TESTING PRESSURE: 100 BAR
3. MALE AND FEMALE THREADED
4. TYPE OF MODEL: RECTANGULAR , SQUARE.



DESCRIPTION

• Internal construction of the block cylinders makes them extremely compact as compared to the tie rod construction cylinders.

1. Block cylinders find usage in work holding fixtures and other short stroke applications.

2. Our block cylinders are manufactured in varied specifications and can be easily mounted in different ways.

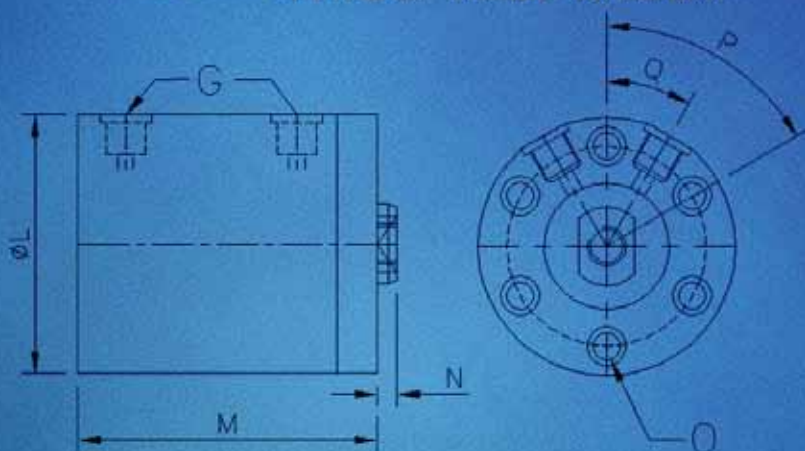
3. It can be mounted vertically or horizontally through vertical or horizontal mounting holes.

NOTE: A positive stopper should be provided to reduce load on the clamping bolts for side mounting.

BORE	16	20	32	40	50
ROD	12	16	16/ 20	20/ 25	25/ 32
A	60	65	75	85	100
B	40	50	55	62	76
C	65	70	82	82	96
D	18	18	22	28	36
E	M10 x1.5	M12 x1.5	M12 x1.5	M12 x1.5	M16 x1.5
G	$\frac{1}{8}$ "BSP	$\frac{1}{8}$ "BSP	$\frac{1}{8}$ "BSP	$\frac{1}{4}$ "BSP	$\frac{1}{2}$ "BSP
T x DEEP	M6 x12	M8 x15	M10 x20	M16 x25	M20 x30
X	M10 x1.5	M14 x1.5	M16 x1.5	M20 x1.5	M24 x1.5

GC2**GARUDA CLAMP COMPACT CYLINDER****Features**

1. WORKING PRESSURE- 70 BAR
2. TESTING PRESSURE-100 BAR
3. MALE AND FEMALE THREADED
4. TYPE OF MODEL- CIRCULAR

**DESCRIPTION**

Our customers can avail from us superior grade compact cylinders manufactured in adherence to international quality standards. The compact cylinders offered by us are solid piston,

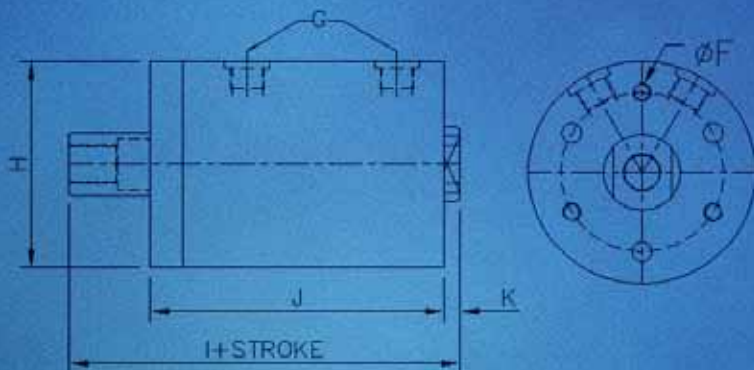
Double rod end cylinder which are extremely compact in axial direction. Because of the compact design, port thread depth of these cylinders is short.

Note: For ordering the seal kit,

BORE	16	20	32	40	50
ROD	12	16	16/ 20	20/ 25	25/ 32
L	35	45	65	76	95
M	45	53	59	67	73
N	10	10	10	10	10
O	4	4.5	6.6	9	11
P	60°	60°	60°	60°	60°
Q	30°	30°	30°	30°	30°
G	1/4" BSP	1/4" BSP	1/4" BSP	1/4" BSP	1/4" BSP

GC3**GARUDA CLAMP HOLLOW CYLINDER****Features**

1. WORKING PRESSURE- 70BAR
2. TESTING PRESSURE-100 BAR
3. MALE AND FEMALE THREADED
4. TYPE OF MODEL- CIRCULAR

**DESCRIPTION**

Hollow Piston Cylinders are provided with a through hole and internal threading in connection with a standard push-pull bolt and mounting plate combination for a variety of clamping applications. These are also suitable for retrofitting manual fixtures into hydraulic fixtures.

Note: Refer General design notes before selection and use.

BORE	16	20	32	40	50
ROD	12	16	16/ 20	20/ 25	25/ 32
F	M4 x1.5	M6 x1.5	M6 x1.5	M8 x1.5	M8 x1.5
H	35	55	65	80	102
I	80	110	125	145	165
J	50	80	90	105	115
K	5	5	5	10	10
G	$\frac{1}{8}$ "BSP	$\frac{1}{8}$ "BSP	$\frac{1}{8}$ "BSP	$\frac{1}{4}$ "BSP	$\frac{1}{4}$ "BSP

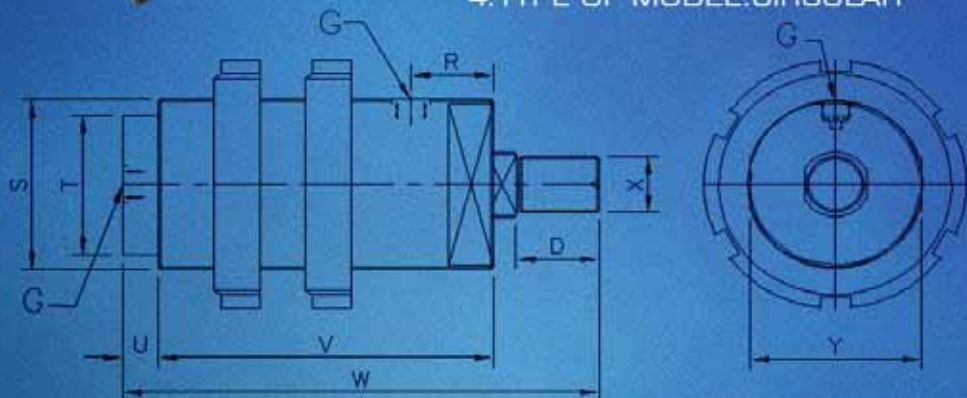
GC4

GARUDA CLAMP MINI THREADED BODY CYLINDER



Features

1. WORKING PRESSURE- 70 BAR
2. TESTING PRESSURE- 100 BAR
3. MALE AND FEMALE THREADED
4. TYPE OF MODEL: CIRCULAR



DESCRIPTION

- Easy to use, basic hydraulic cylinders in SAE 2 ported designs
- Designed for long life in high production applications. Don't gamble with "cheap" cylinders which wear out prematurely
- Reduce or eliminate part distortion by providing accurate, repeatable clamping force.
- Double Acting cylinders assure complete powered retraction for CNC controlled operations (where time is critical) or when using heavy end effectors. Note: Refer General design notes before selection and use, ED

BORE	16	20	32	40	50
ROD	12	16	16/ 20	20/ 25	25/ 32
D	18	18	22	28	36
R	24	26	26	28	30
S	M36 x1.5	M39 x1.5	M48 x2	M60 x2	M65 x2
T	30	35	45	55	60
U	6	6	8	8	9
V	108	115	117	118	122
W	141	147	156	163	180
X	M10 x1.5	M14 x1.5	M16 x1.5	M20 x1.5	M24 x1.5
Y	34	36	46	58	62
G: BSP	1/8"	1/8"	1/8"	1/4"	1/4"

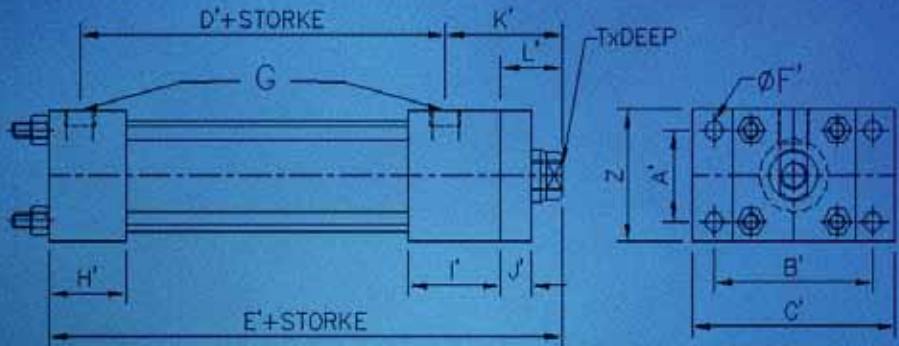
GC5

GARUDA CLAMP MINI TIE ROD CYLINDER



Features

1. WORKING PRESSURE- 70 BAR
2. TESTING PRESSURE- 100 BAR
3. MALE AND FEMALE THREADED
4. TYPE OF MODEL: RECTANGULAR, SQUARE



DESCRIPTION

- Easy to use, heavy work contraction and Cylinder Barrel made of high stainless steel honed to 0.3 Ra Surface finish. Piston Rods are Toughened & Chrome Plated.
- A piston rods seal is HAL-LITE Make.

Note: Refer General design

BORE	16	20	32	40	50
ROD	12	16	16/ 20	20/ 25	25/ 32
A'	20	27	33	41	52
B'	42	51	64	87	105
C'	60	65	80	110	130
D'	52	56	50	63	92
E'	116	118	120	160	175
F'	5.5	5.5	7	11	13
G" BSP	$\frac{1}{8}$ "	$\frac{1}{8}$ "	$\frac{1}{8}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "
H'	25	25	25	28	32
I'	30	30	30	40	42
J'	10	10	10	10	15
K'	50	50	65	62	67
L'	25	25	45	35	41
Z	30	40	45	63	75

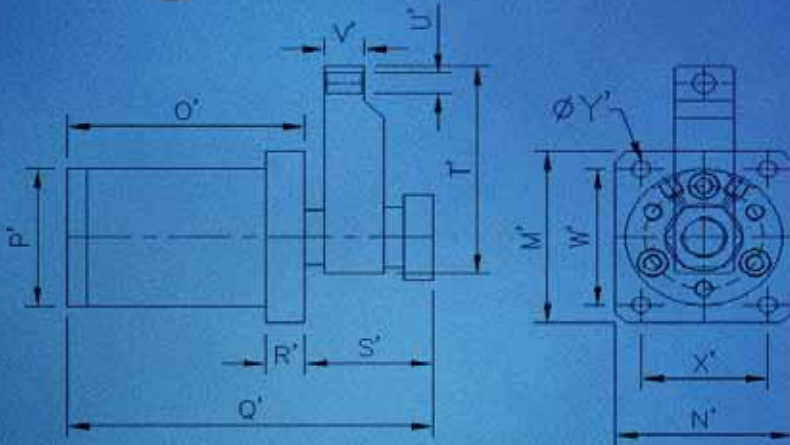
GC6

GARUDA SWING CLAMP CYLINDER



Features

1. WORKING PRESSURE- 70 BAR
2. TESTING PRESSURE-100 BAR
3. MALE AND FEMALE THREADED
4. TYPE OF MONTING :ARM



DESCRIPTION

•The Block type design enables easy to assembly and disassembly through horizontal and vertical mounting holes. Special threads are provided for vertical mounting operation. These double acting swing clamps are having special feature during rotation (swing) it covers 20mm stroke and there after it travels vertically for 10 mm stroke.

•Note: Refer General design notes before selection and use.

BORE	16	20	32	40	50
ROD	12	16	16/ 20	20/ 25	25/ 32
M'	40	50	80	100	125
N'	35	45	75	90	115
O'	50	70	130	135	170
P'	32	40	64	80	100
Q'	70	100	185	200	250
R'	20	20	20	20	20
S'	45	30	55	65	80
T'	50	60	100	120	150
U'	ø7	ø9	ø11	ø13	ø17
V'	10	15	15	20	25
W'	32	40	64	80	100
X'	28	35	56	70	88
Y'	4	5	8	10	12



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