



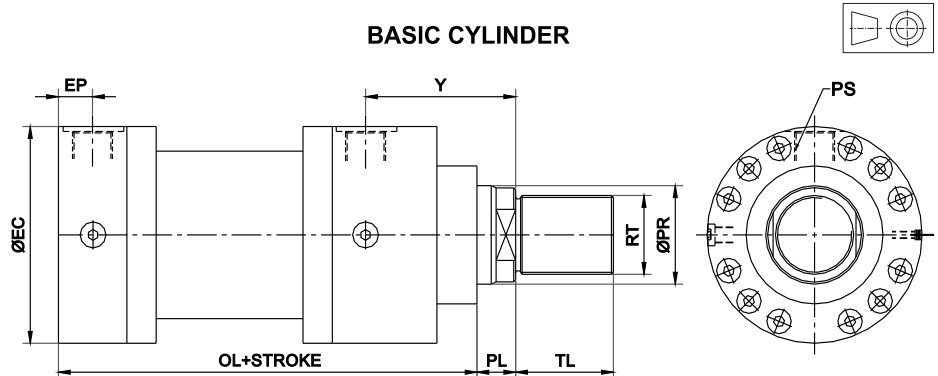
Hydraulic Cylinders - NH16 Series

(Mill Duty Cylinders as per ISO 6020/1)



- Rated Pressure 160 kg/cm²
- Peak Pressure 240 kg/cm²
- Cylinder bore diameters up to 250mm
- Temperature range:- -20°C to 90°C. (optional seals for temp. up to 180°C)

BASIC CYLINDER



SPECIFICATION OF MATERIALS

END COVERS : Precision machined steel

CYLINDER BARREL : Cold drawn seamless steel tube, honed and polished internally to a maximum surface roughness of Ra=0.4 microns

PISTON : Steel, single piece, precisely machined for perfect alignment

PISTON BEARING : Polyester fabric with polyester resin+PTFE for maximum rigidity

PISTON ROD : Medium carbon steel, toughened, ground Hard-chrome plated & polished to a maximum roughness of Ra=0.4 microns

PISTON ROD BEARING : Polyester fabric with polyester resin+PTFE for maximum rigidity

SEALING SYSTEM : We use a wide range of international std sealing systems to suit various applications and temperatures

MOUNTINGS : Accurately machined steel suitable for heavy duty application

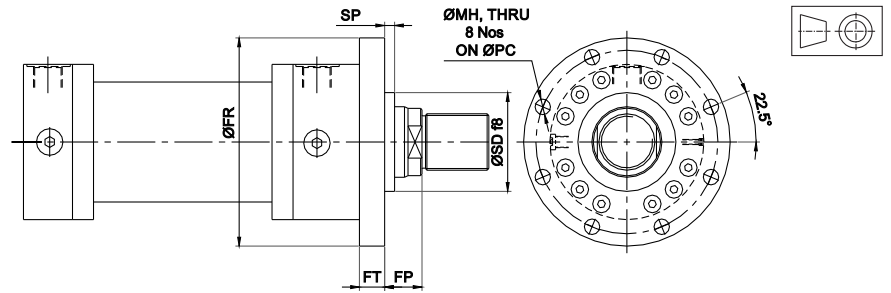
BORE DIA	PR DIA	EC DIA	RT	PS (BSP)	OL	PL	TL	EP	Y
32	18	67	M14x1.5	3/8"	157	13	18	17	64
	22		M16x1.5				22		
40	22	78	M16x1.5	1/2"	177	13	22	22	71
	28		M20x1.5				28		
50	28	95	M20x1.5	1/2"	191	14	28	22	72
	36		M27x2				36		
63	36	116	M27x2	3/4"	208	16	36	25	82
	45		M33x2				45		
80	45	130	M33x2	3/4"	232	18	45	25	91
	56		M42x2				56		
100	56	158	M42x2	1"	280	20	56	30	108
	70		M48x2				63		
125	70	192	M48x2	1	302	23	63	30	121
	90		M64x3				85		
160	90	238	M64x3	1 1/4"	345	25	85	36	143
	110		M80x3				95		
200	110	285	M80x3	1 1/4"	420	30	95	36	190
	140		M100x3				112		
250	140	365	M100x3	1 1/2"	518	32	112	40	210
	180		M125x4				125		

Note: Head End cushioning will not be provided in higher size piston rod

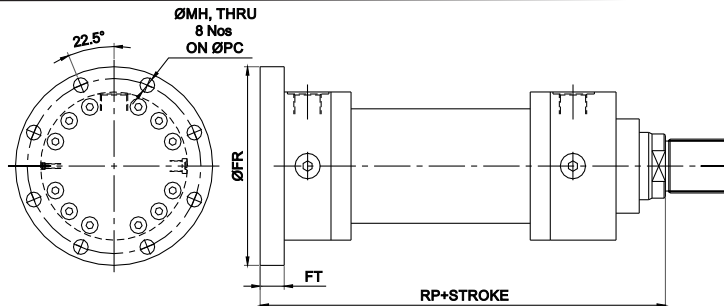
Standard Mountings NH16 Series



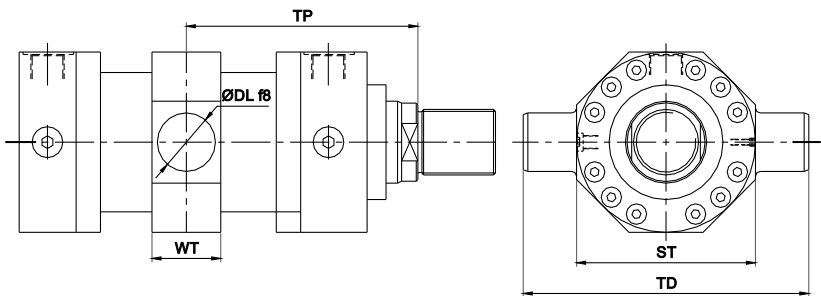
Front Flange (FF)



Rear Flange (RF)



Intermediate Trunnion (IT)



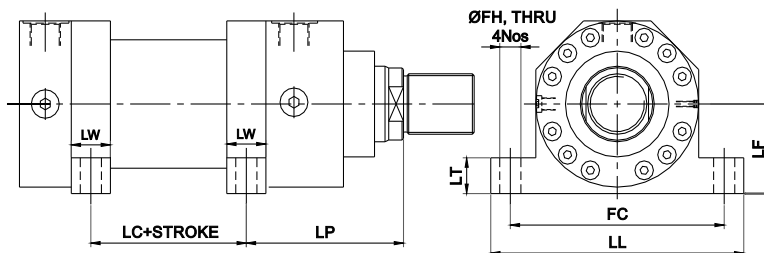
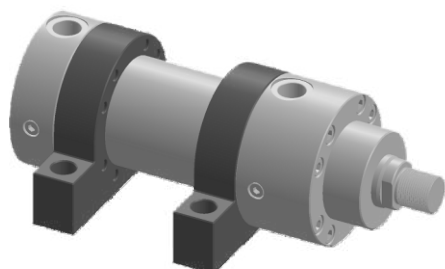
DIMENSIONAL DETAILS

BORE	32	40	50	63	80	100	125	160	200	250
FR	110	125	150	170	195	240	275	320	385	490
PC	92	106	126	145	165	200	235	280	340	420
MH	9	9	11	14	18	22	22	22	26	33
FT	16	16	20	25	32	32	32	36	40	56
SP	3	3	4	4	4	5	5	5	5	8
SD	40	50	60	70	85	106	132	160	200	250
FP	16	16	18	20	22	25	28	30	35	40
RP	186	206	225	249	282	332	357	406	490	606
WT	26	30	35	42	50	60	73	90	110	135
TD	99	122	145	170	199	240	295	366	455	570
ST	75	90	105	120	135	160	195	240	295	370
DL	16	20	25	32	40	50	63	80	100	125
TP	TO BE SPECIFIED BY CUSTOMER									

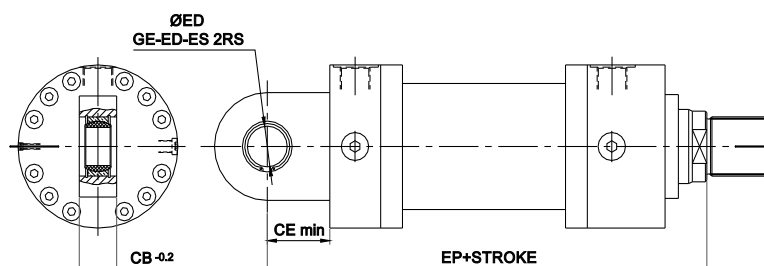
Standard Mountings NH16 Series



Foot Lug (FL)



Rear Eye with Spherical Bearing (RES)



DIMENSIONAL DETAILS

BORE	25	40	50	63	80	100	125	160	200	250
CB	16	20	25	32	40	50	63	80	100	125
ED	16	20	25	32	40	50	63	80	100	125
CE	20	25	32	40	50	63	71	91	112	160
EP	206	231	257	289	332	395	428	505	615	773
LC	40	44	51	51	60	70	76	79	100	154
LL	110	120	145	180	210	250	300	350	415	525
FC	90	100	120	150	170	205	245	295	350	450
LW	25	25	32	32	40	50	56	60	72	80
LT	25	30	40	45	50	60	70	80	100	140
LF	38	43	52	62	70	82	100	119	145	190
FH	11	11	14	18	22	26	33	33	39	45
LP	88.5	97.5	102	115	128	154	170	199	252	288

Technical Data & Ordering Details for NH16 Series



TECHNICAL DETAILS											
Bore Dia (mm)	Rod Dia (mm)	Piston Area (cm ²)		Action Force at Pressure in kgf				Piston Velocity in m/s at flow=1 ltr/min		Requisite flow in ltr/min for Velocity=0.1 m/s	
				100 kg/cm ²		160 kg/cm ²					
		+	-	+	-	+	-	+	-	+	-
32	18	8	5.5	800	550	1280	880	0.02078	0.03	4.81	3.33
	22		4.2		420		672		0.03942		2.54
40	22	12.6	8.8	1260	880	2016	1408	0.0133	0.0189	7.52	5.29
	28		6.4		640		1024		0.02607		3.84
50	28	19.6	13.5	1960	1350	3136	2160	0.00851	0.0124	11.75	8.07
	36		9.5		950		1520		0.01767		5.66
63	36	31.2	20.9	3120	2090	4992	3344	0.00536	0.00796	18.66	12.56
	45		15.3		1530		2448		0.01094		9.14
80	45	50.2	34.4	5020	3440	8032	5504	0.00332	0.00486	30.08	20.57
	56		25.6		2560		4096		0.00652		15.34
100	56	78.5	53.9	7850	5390	12560	8624	0.00213	0.0031	47.01	33.26
	70		40		4000		6400		0.00417		23.97
125	70	122.7	84.2	12270	8420	19632	13472	0.00136	0.00198	73.45	50.41
	90		59		5900		9440		0.00283		35.37
160	90	201	137	20100	13700	32160	21920	0.00083	0.00122	120.34	82.26
	110		106		1060		16960		0.00158		63.46
200	110	314	219	31400	21900	50240	35040	0.00053	0.00076	188.02	131.15
	140		160		16000		25600		0.00104		95.89
250	140	490	337	49000	33700	78400	53920	0.00034	0.00049	294.1	204
	180		236.4		23640		37824		0.00071		140.8

Model Code Indication

N H 1 6 - 1 0 0 / 5 0 0 - F F - 4 5 - C B - (X) - S S 4

Series	Bore sizes	Stroke	Mountings	Piston Rod sizes	Cushioning	Accessories & Special features	Sealing System Code
NH16 Rated Hydraulic Pressure of 160kg/cm ²	Ø32 - 250mm (10 Std. sizes)	To be specified in mm	FF - Front Flange RF - Rear Flange RES - Rear Eye with Spherical Bearing FL - Foot Lug IT - Intermediate Trunnion	Ø18 - 180mm (11 Std. sizes)	CB - Cushioned at both ends CR - Cushioned at Rear end CF - Cushioned at Front end NC - Non Cushioned	PRES - Rod Eye with Spherical Bearing PRF - Rod Fork SA - Single Acting DE - Double Ended	SS4 (Std.) for alternatives contact us.

NOTE:- The right of modification for technical improvement is reserved. All dimensions are in mm unless otherwise specified

CUSTOM BUILT CYLINDERS CAN ALSO BE OFFERED ON REQUEST