

HITORK®

**Worm Gear Screw Jacks
MWJ - Series**



Important Note: Please refer New model MWJ 10KN in MWJ product page.
We have discontinued production of the MWJ 1 from our standard lineup.



Gears and Gear Drives (India) Pvt Ltd

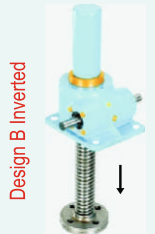
(ISO 9001-2015 Certified)

CERTIFICATE No. 177024
VALID FROM: July 30, 2022 | VALID UNTIL: July 29, 2025





Type 1
Screw Rod
Traversing
(Translating)

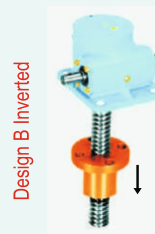


Design B Inverted



Design A Upright

Type 2
Nut Traversing
and Screw
Rotating



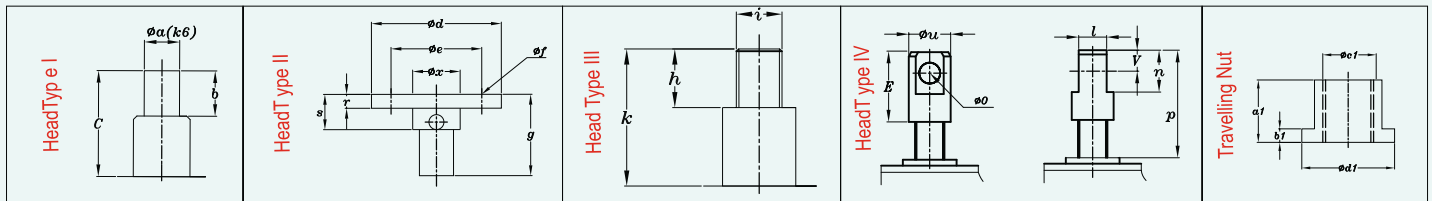
Design B Inverted



PRELIMINARY SELECTION GUIDE - MWJ SERIES

Model No. & Capacity in Metric Tonnes	0.5	1	2	2.5	5	10	15	20	25	30	35	50	75	100	150	
Max. Lifting Force KN	5	10	20	25	50	100	150	200	250	300	350	500	750	1000	1500	
Lifting Screw Dia & Pitch mm	18 x 6	20 x 5	26 x 6.35	30 x 6	40 x 7	58 x 12	60 x 12	65 x 12	90 x 16	95 x 16	100 x 16	120 x 16	127 x 16	160 x 20	180 x 25	
Worm Gear Ratio	Normal	10 : 1	5 : 1	6 : 1	6 : 1	6 : 1	23 : 3	23 : 3	8 : 1	32 : 3	32 : 3	32 : 3	32 : 3	12 : 1	12 : 1	
	Slow	20 : 1	20 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	32 : 1	32 : 1	32 : 1	32 : 1	36 : 1	36 : 1	
Lift in mm per turn of input shaft	Normal	0.60	1	1.058	1.0	1.167	1.565	1.565	1.5	1.5	1.5	1.5	1.5	1.667	2.08	
	Slow	0.30	0.25	0.262	0.250	0.292	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.566	0.694	
Max. Power input (KW) *	20% Duty	0.12	0.24	0.45	0.55	1.1	2.6	2.6	3.7	4.8	4.8	6.0	7.4	12.5	25	
	10% Duty	0.17	0.32	0.63	0.75	1.5	3.7	3.7	5.2	6.7	6.7	8.4	10.4	17.5	17.5	
Total Efficiency Rating %	Normal	27.2	27	26.4	23.2	21	23	22.5	21.5	20	19	18	15	15	15	
	Slow	20	16	16	13.6	16	16	16	15	12	12	11.0	10.0	10	9	
Screw Torque (Nm) *	At Max. Lift	8.8	17.3	44.6	60	153	468	717	1009	1725	2148	2500	4236	6630	11116	19270
Max. Permissible Torque (Nm) At Driving Shaft		12	20.5	36	46.5	92	195	195	280	480	480	705	840	1200	2660	4220
Weight without Screw & Protection Tune (kg)		1.2	1.2	7.3	7.3	16.2	25	25	36	70.5	70.5	87	176	538	538	538
Weight per 100 mm Screw		0.14	0.17	0.32	0.45	0.82	1.67	1.8	2.15	4.15	4.62	5.20	7.70	8.62	13.82	18.6

SCREW ROD - END VARIANTS



Model No./Capacity in Metric Tons	0.5	1	2	2.5	5	10	15	20	25	30	35	50	75	100	150	
HEAD I	ϕa ^{H8}	12	12	18	20	25	40	40	50	70	75	80	100	100	140	150
	b	20	20	30	30	40	50	50	60	63	75	80	125	125	175	175
	c	30	31.5	45	46	51	73.3	73.5	80	92	83	100	150	150	200	225
HEAD II	ϕd	65	90	98	98	122	150	150	185	205	240	260	300	350	355	370
	ϕe	45	65	75	75	85	105	105	140	155	175	200	225	260	280	280
	ϕf	4 x $\phi 7$	4 x $\phi 11$	4 x $\phi 11$	4 x $\phi 14$	4 x $\phi 17$	4 x $\phi 21$	4 x $\phi 21$	4 x $\phi 26$	4 x $\phi 27$	4 x $\phi 30$	4 x $\phi 33$	4 x $\phi 35$	4 x $\phi 38$	6 x $\phi 48$	6 x $\phi 52$
	r	8	9.5	12	12	18	20	20	20	25	28	30	30	35	75	75
	s	20	25	30	30	40	50	50	60	63	75	80	70	70	125	125
	ϕx	18	35	40	40	50	65	65	90	100	100	130	140	155	200	200
	g	30	31.5	45	46	51	73.5	73.5	80	92	83	100	100	75	150	200
HEAD III	h	20	20	30	30	59	50	50	60	63	75	80	125	125	175	175
	i	M12 x 1.25	M12 x 1.5	M18 x 1.5	M22 x 1.5	M30 x 2	M40 x 3	M40 x 3	M50 x 3	M70 x 3	M75 x 3	M80 x 3	M100 x 5	M100 x 5	M140 x 6	M150 x 6p
	k	30	31.5	45	46	51	73.5	73.5	80	92	83	100	150	150	200	220
HEAD IV	l	20	20	30	30	42	60	60	75	90	90	105	120	120	160	180
	m	50	50	70	70	105	130	130	150	170	175	220	300	300	360	375
	n	30	30	50	50	75	100	100	120	140	140	160	200	200	280	300
	ϕo ^{H8}	15	15	20	25	35	50	50	60	70	70	80	100	100	145	160
	p	65	65	85	86	117	153.5	153.5	170	204	204	240	325	325	385	400
	ϕu	30	30	48	50	65	90	90	110	130	130	150	170	170	220	280
	v	15	15	25	25	37.5	50	50	60	70	70	80	100	100	140	150
TRAVEL NUT	a1	32	38	40	45	60	75	75	100	120	140	145	155	190	200	225
	b1	10	12	15	15	18	25	25	35	35	40	35	50	50	65	80
	$\phi c1$ ^{H9}	40	38	50	50	70	90	90	90	130	133	150	160	180	200	230
	$\phi d1$	50	82	76	80	87	110	110	120	155	230	190	225	318	260	395

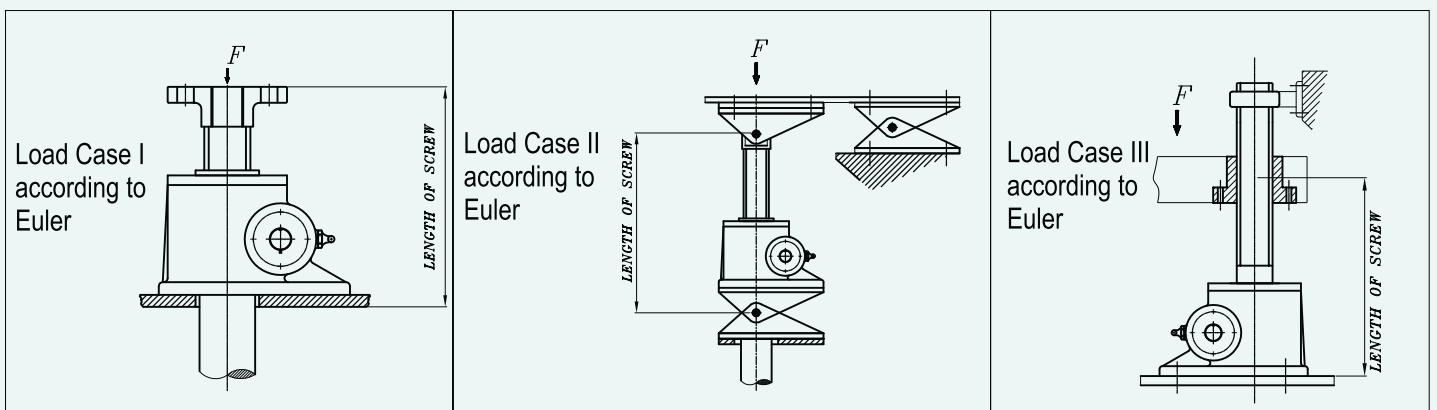


Dimension Table Type 1 & Type 2

Frame Size	0.5	1	2	2.5	5	10	15	20	25	30	35	50	75	100	150
A	L+20	L+20	L+20	L+20	L+20	L+20	-	L+20	L+20	-	L+20	L+20	-	L+65	L+65
A2	L+32	-	L+44	L+40	L+43	L+42	L+55	L+55	L+60	L+60	L+60	L+65	L+70	L+65	L+65
A4	L+166	L+175.5	L+205	L+214	L+270	L+335	L+335	L+404	L+476	L+525	L+535	L+669	L+739	L+802	L+802
A5	L+188	L+195.5	L+227	L+238.5	L+300	L+359	L+359	L+430	L+513	L+577	L+580	L+698	L+789	L+812	L+812
B	105.5	114	147.5	150.5	193	230	230	262	317	338	350	375	419	520	520
C	32	38	44	45	61.5	70	70	87	102	105	115	130	140	170	170
D	81.5	92	94	165	212	235	235	295	350	365	430	260	584	540	540
E	-	-	57	135	168	190	190	240	280	295	360	150	482	440	440
F	115	127	182	120	155	200	200	215	260	260	280	500	356	620	620
G	90	102	152	90	114	155	155	160	190	190	210	400	254	520	520
ØH	9	11	11	14	17	21	21	28	35	39	35	48	54	52	52
ØJk6	10	12	14	16	20	25	25	28	34	35	38	40	45	60m6	70m6
K1	27	32	45.2	45.2	56.2	66.8	66.8	72.5	97	97	120	137	137	196	196
K2	-	-	28.5	50	58	63.5	63.5	95	95	105	135	75	190.5	160	160
L	32.5	35	47	65	80	86	86	122.5	130	140	170	130	241	210	210
L1	22	36.5	34	34.25	46	52	52	52	60	61.5	80	100	105	110	110
M	73	80	100	110.5	132	172	172	213.5	221	251	265	324	380	420	420
N	120	153	180	190	228	280	280	322	355	380	430	560	610	670	670
NL	L+72	L+78	L+80	L+85	L+110	L+125	L+125	L+150	L+170	L+170	L+205	L+225	L+255	L+300	L+300
ØO	65	70	98	98	122	150	150	185	205	230	260	300	350	440	440
P	75.5	82.5	101.5	105.5	142	156.5	156.5	182	225	255	250	275	344	370	370
Q	3x3x20	3x3x25	5x5x28	5x5x32	6x6x32	8x7x45	8x7x45	8x7x45	10x8x50	10x8x50	10x8x70	12x8x80	14x9x80	18x11x90	20x12x90
ØR	-	-	41	38	55	55	55	72	80	90	100	-	140	147	147
S1	1.5	-	6	5.5	6	7	7	6	10	3	10	-	8	14	14
T	5.5	-	8.5	8.5	12	6.5	6.5	6	8	20	10	15	20	20	20
T1	18.5	20	24	26.5	30	34	34	39	52	52	45	29	50	43	43
T2	11.5	-	20	20	18	18	18	31	40	20	40	10	35	20	20
T4	0	-	0	0	0	0	0	0	0	0	15	32	0	0	0
ØU	28	30	47	47	63	78	78	86	118	115	136	143	160	198	198
V	10	10	14	12	18	16	16	20	25	30	30	35	35	50	50
ØW	36	36	48	48	65	80	80	100	130	140	150	170	180	240	240
ØW1	45	36	60	68	83	110	110	140	160	140	180	210	200	280	280
ØW2	45	-	60	60	75	95	95	100	130	140	150	159	200	220	220
X	20	20	20	20	20	25	25	25	25	25	30	50	50	50	50
Y	70	77.5	93	97	130	150	150	176	217	235	240	260	324	350	350
Y1	74	77.5	95	100	131	160	160	194	226	255	250	289	344	383	383
Y2	70	77.5	93	97	131	150	150	181	211	255	250	292	344	350	350

L = Lift

Load Diagram as per Euler

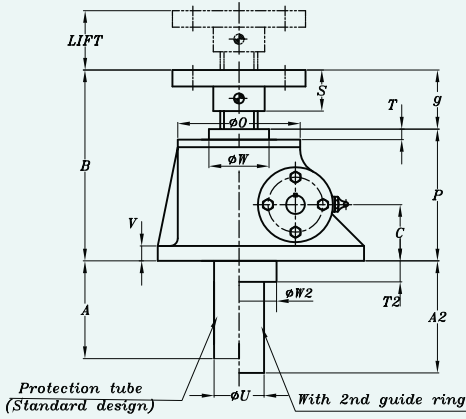




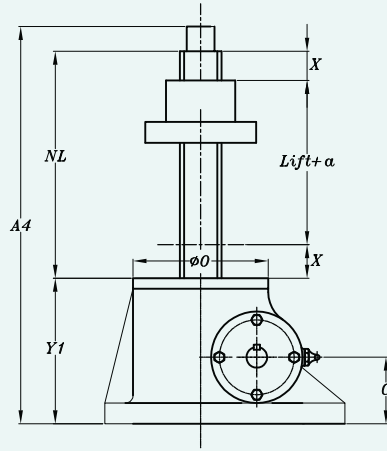
Dimension Drawings

Dimension Table Type 1 & Type 2

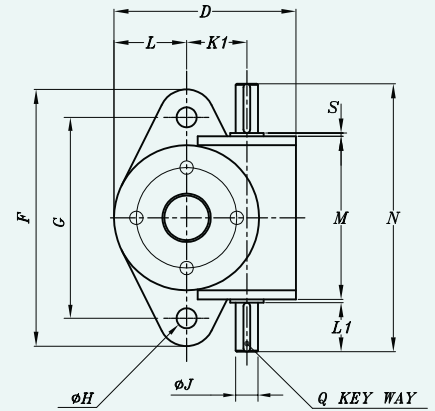
TYPE 1 DESIGN A



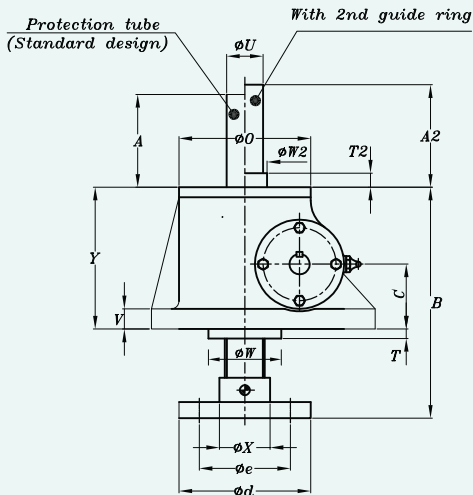
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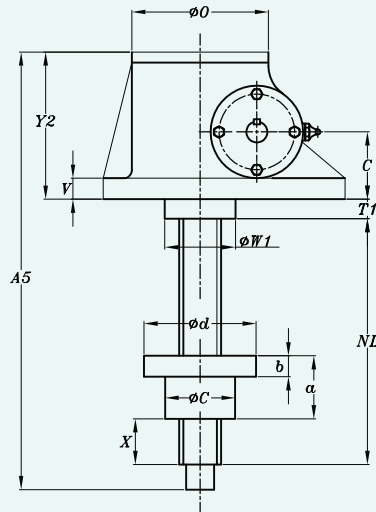
ONLY FOR MWJ-0.5



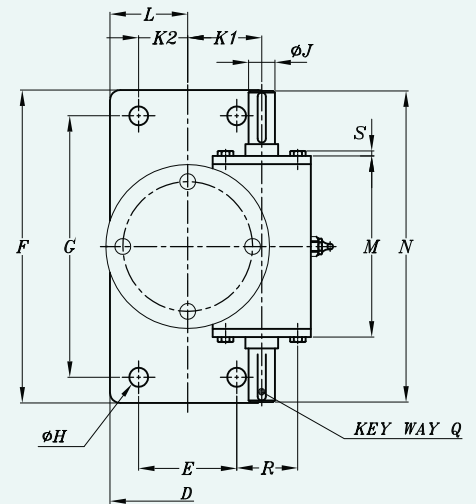
TYPE 1 DESIGN B



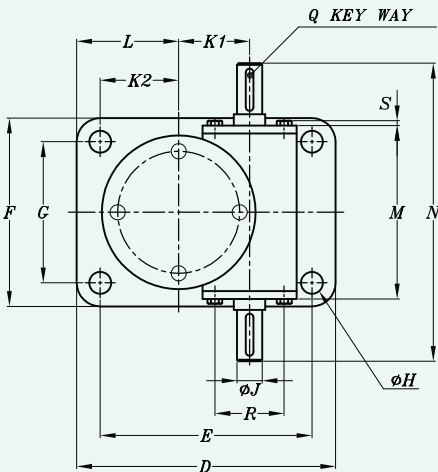
TYPE 2 DESIGN B



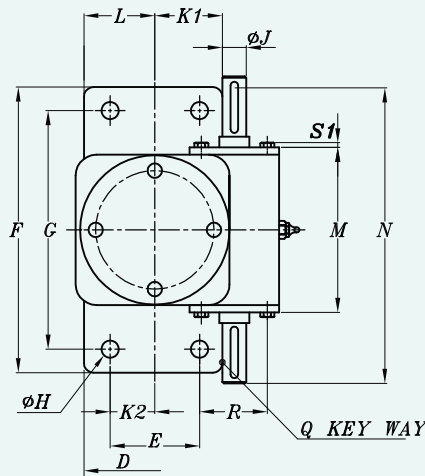
ONLY FOR MWJ-2



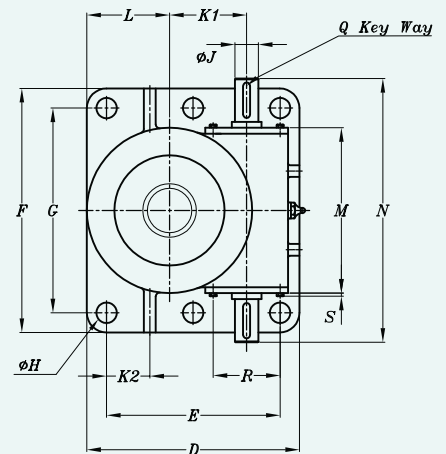
ONLY FOR MWJ-2.5, 5, 10,15,20,25,30 35 & 75



ONLY FOR MWJ-50



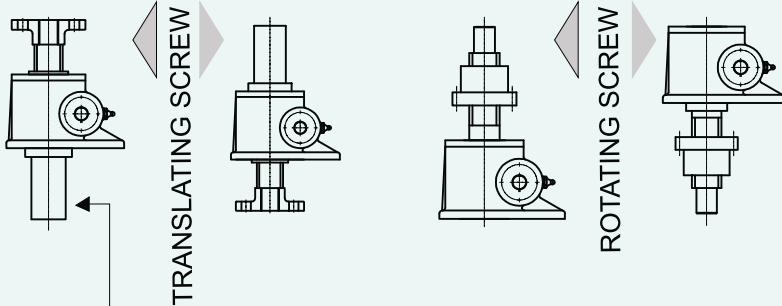
ONLY FOR MWJ- 100 & 150





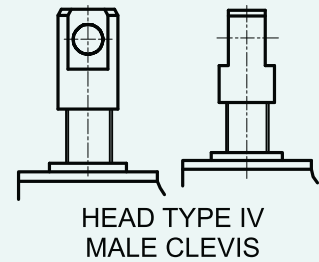
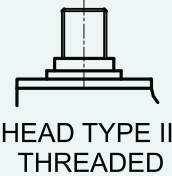
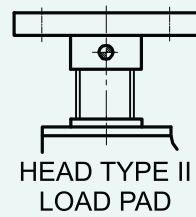
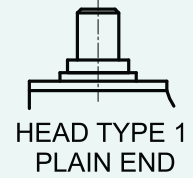
Worm Gear Screw Jack

TYPE 1 DESIGN A UPRIGHT TYPE 1 DESIGN B INVERTED TYPE 2 DESIGN A UPRIGHT TYPE 2 DESIGN B INVERTED



Gear Reduction Ratio
Effective Lift In mm

SCREW ROD END VARIANTS CATALOGUED



MWJ 5 TYPE 1 DESIGN A 6:1 LIFT 450 CLOSED HEIGHT HEAD TYPE II BB MRH

Worm Gear SCREW Jack Model

TON	KN	MODEL	TON	KN	MODEL
0.5	5	MWJ 0.5	20	200	MWJ 20
1	10	MWJ 1	25	250	MWJ 25
2	20	MWJ 2	30	300	MWJ 30
2.5	25	MWJ 2.5	35	350	MWJ 35
5	50	MWJ 5	50	500	MWJ 50
10	100	MWJ 10	75	750	MWJ 75
15	150	MWJ 15	100	1000	MWJ 100
			150	1500	MWJ 150

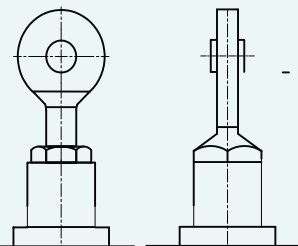
ADDITIONAL ACCESSORIES

Hand Wheel	HW
Hand Crank	HC
Limit Switch	LS
Bellow Boots	BB ←
Swivel Base	SB
Brake Motor	BM
Reducers	Red
Double Clevis	DC
Anti Backlash	AB
Anti Turn (Keyed Version)	AT
Anti Turn + Anti Backlash	AT+AB

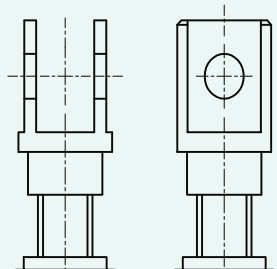
Above Example:
Size MWJ 5 TON, Type 1 Design A, with Ratio 6:1, Lift 450 mm, Closed Height 450 + 193, Head Type II, Bellow Boots, Motor Mounted to right.

* Additional Closed height if any to be specified, refer catalogue, Dimension B, B1, NL

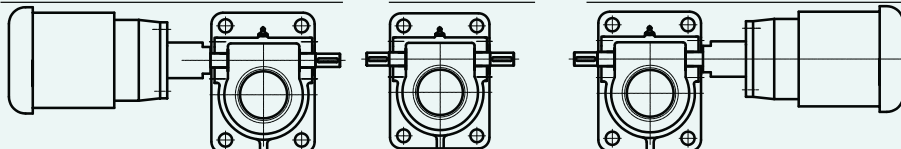
SCREW ROD END VARIANTS NON CATALOGUED



FORK TYPE HEAD



MOTOR ON THE LEFT MLH NO MOTOR MOTOR ON THE RIGHT MRH



HITORK[®]



Worm Gear Screw Jacks CLASSIC



Worm Gear Screw Jacks CUBICAL



Ball Screw Jack



Electric Cylinder



Bevel Gear Screw Jacks



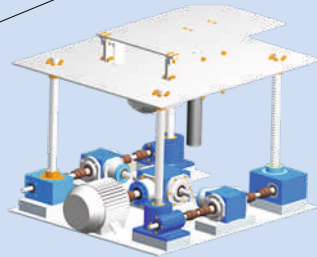
Bevel Gear Box FG



Bevel Gear Box L Drive



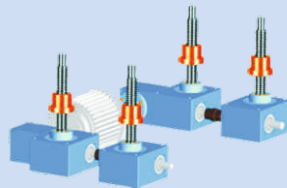
Worm Reducer



Lifting Systems



UV Joints



Gears and Gear Drives (India) Pvt Ltd

(ISO 9001-2015 Certified)

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VALID FROM: July 30, 2022 | VALID UNTIL: July 29, 2025

