DARI Motion Capture Pilot Trial - Jan/2020

Halotypehealth is a Neuro Connect device

DARI is the preeminent markerless motion capture company in the industry. (Currently DARI is the only motion capture company listed by the FDA.) In this research project the testing technology recorded film of 12 professional athletes to give us the difference pre and post application of Holotypehealth technology infused into clothing.

The results saw substantial increases in; hip to shoulder separation, pelvic and torso velocity and more range of motion through the arm & external rotation.

ANNOTATION REVIEW

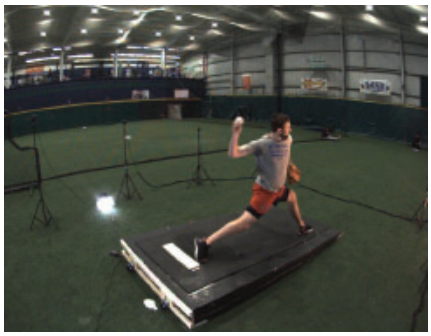
FEEA15FA-091B-4118-9982-65EB52E09A05 | 6'5"
240 POUNDS | 01/31/2020

Synopsis

Restriction in range motion at the shouler (external) and mid spine reduces range and velocity capabilities

Recommendation

WIth an orthopedic review and an increase in those ranges of motion the athlete will be able to improve their arm velocities and increase pitch speed.



Mobility Right Hand Pitch - 1

Reduced shoulder external rotation at foot contact. At 51 degress this could be increased.

Recommendation

Orthopedic review of the shoulders ability to externally rotate.

Mobility Right Hand Pitch - 1

Restricted Trunk rotation and separation between the shoulder and pelvis. Only 17 degrees at foot contact.

Recommendation

Improve mid spine mobility. Orthopedic review of spine range of motion.

Performance Right Hand Pitch - 1

Reduced rotational velocities. Resulting in reduced elbow and shoulder rotational velocities.

Recommendation

Improve sequence of trunk rotation velocity to improve rotational arm speed.

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DARI MOTION powered by Scientific Analytics Inc.

Halotypehealth is a Neuro Connect device

Pitcher 1

Before Holotypehealth

FEEA15FA-091B-4118-9982-65EB52E09A05 | 6'5" | 240 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	61.11	in	0.53
Lead Foot Position	11.07	in	1.00
Lead Knee Flexion	44.56	deg	3.40
Pelvis Rotation	-64.25	deg	4.84
Trunk Separation	-37.54	deg	4.21
Trunk Forward Tilt	14.58	deg	2.21
Trunk Side Tilt	-0.64	deg	1.30
Shoulder Abduction	92.93	deg	1.39
Shoulder Horiz Abduction	-18.75	deg	3.88
Shoulder External Rotation	58.36	deg	5.09
Elbow Flexion	94.69	deg	2.83
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	166.53	deg	2.76
Max Shoulder Horiz Abduction	1.22	deg	1.87
Max Elbow Flexion	105.98	deg	1.84
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	32.96	deg	6.88
Trunk Forward Tilt	13.36	deg	2.31
Trunk Side Tilt	0.88	deg	1.77
Shoulder Abduction	83.75	deg	2.67
Elbow Flexion	23.93	deg	3.61
Arm Slot	73.69	deg	2.08
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	967.07	deg/s	107.73
Trunk Rotation Velocity	908.87	deg/s	111.67
Max Knee Extension Velocity	303.01	deg/s	84.31
Max Elbow Extension Velocity	1985.27	deg/s	97.12
Max Internal Shoulder Rotation Velocity	5481.96	deg/s	267.65
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	24.86	%	7.18
Trunk Rotation Velocity Time	82.12	%	5.88
Max Knee Extension Velocity Time	73.58	%	5.98
Max Elbow Extension Velocity Time	86.35	%	1.38
Max Internal Shoulder Rotation Velocity Time	108.63	%	4.10

REPETITIONS

- (•) Average of All Repetitions
- ( ) Right Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

After Holotypehealth

FEEA15FA-091B-4118-9982-65EB52E09A05 | 6'5" | 240 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	61.56	in	0.81
Lead Foot Position	12.08	in	0.99
Lead Knee Flexion	44.28	deg	3.30
Pelvis Rotation	-61.90	deg	4.72
Trunk Separation	-17.30	deg	8.42
Trunk Forward Tilt	11.28	deg	1.74
Trunk Side Tilt	-7.61	deg	2.65
Shoulder Abduction	91.26	deg	2.53
Shoulder Horiz Abduction	-35.49	deg	10.78
Shoulder External Rotation	51.46	deg	5.04
Elbow Flexion	103.32	deg	4.76
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	163.23	deg	2.46
Max Shoulder Horiz Abduction	7.06	deg	1.71
Max Elbow Flexion	107.24	deg	2.17
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	35.67	deg	6.38
Trunk Forward Tilt	7.48	deg	1.87
Trunk Side Tilt	0.29	deg	2.78
Shoulder Abduction	81.73	deg	3.78
Elbow Flexion	28.00	deg	4.67
Arm Slot	75.25	deg	2.03
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	983.06	deg/s	60.22
Trunk Rotation Velocity	907.08	deg/s	205.43
Max Knee Extension Velocity	189.62	deg/s	56.98
Max Elbow Extension Velocity	1713.07	deg/s	139.12
Max Internal Shoulder Rotation Velocity	4102.05	deg/s	589.40
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	35.21	%	18.50
Trunk Rotation Velocity Time	70.98	%	10.15
Max Knee Extension Velocity Time	62.65	%	17.49
Max Elbow Extension Velocity Time	86.79	%	1.81
Max Internal Shoulder Rotation Velocity Time	112.96	%	5.35

REPETITIONS

- (•) Average of All Repetitions
- ( ) Right Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

Pitcher 2

Before Holotypehealth

F62848D4-252F-4694-90AE-A1B0424CC018 | 6'4" | 230 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	54.46	in	0.31
Lead Foot Position	-1.10	in	1.33
Lead Knee Flexion	48.82	deg	1.95
Pelvis Rotation	-88.59	deg	3.99
Trunk Separation	0.36	deg	4.91
Trunk Forward Tilt	5.94	deg	1.02
Trunk Side Tilt	-3.05	deg	1.79
Shoulder Abduction	92.96	deg	2.20
Shoulder Horiz Abduction	-29.48	deg	2.91
Shoulder External Rotation	77.51	deg	14.13
Elbow Flexion	107.60	deg	1.39
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	178.47	deg	2.17
Max Shoulder Horiz Abduction	-1.26	deg	1.79
Max Elbow Flexion	107.60	deg	1.39
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	47.75	deg	2.18
Trunk Forward Tilt	16.96	deg	0.98
Trunk Side Tilt	5.21	deg	1.75
Shoulder Abduction	87.97	deg	1.56
Elbow Flexion	19.35	deg	1.11
Arm Slot	74.57	deg	1.39
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	1754.23	deg/s	145.87
Trunk Rotation Velocity	987.14	deg/s	169.61
Max Knee Extension Velocity	262.82	deg/s	22.46
Max Elbow Extension Velocity	1783.95	deg/s	77.93
Max Internal Shoulder Rotation Velocity	5134.11	deg/s	668.32
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	37.08	%	7.76
Trunk Rotation Velocity Time	93.29	%	3.80
Max Knee Extension Velocity Time	100.00	%	0.00
Max Elbow Extension Velocity Time	85.46	%	3.36
Max Internal Shoulder Rotation Velocity Time	111.53	%	5.40

REPETITIONS

- (•) Average of All Repetitions
- ( ) Right Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

After Holotypehealth

F62848D4-252F-4694-90AE-A1B0424CC018 | 6'4" | 230 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	55.11	in	0.25
Lead Foot Position	-1.41	in	1.54
Lead Knee Flexion	46.51	deg	2.30
Pelvis Rotation	-80.11	deg	5.82
Trunk Separation	-10.45	deg	2.11
Trunk Forward Tilt	5.70	deg	1.66
Trunk Side Tilt	-0.98	deg	2.29
Shoulder Abduction	91.11	deg	5.18
Shoulder Horiz Abduction	-34.14	deg	3.32
Shoulder External Rotation	73.74	deg	16.09
Elbow Flexion	109.00	deg	2.46
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	183.10	deg	2.72
Max Shoulder Horiz Abduction	7.38	deg	3.15
Max Elbow Flexion	109.00	deg	2.46
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	45.52	deg	2.92
Trunk Forward Tilt	21.02	deg	2.09
Trunk Side Tilt	6.69	deg	1.71
Shoulder Abduction	81.95	deg	0.93
Elbow Flexion	20.28	deg	2.65
Arm Slot	75.78	deg	1.16
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	1587.12	deg/s	272.13
Trunk Rotation Velocity	1112.86	deg/s	287.03
Max Knee Extension Velocity	231.30	deg/s	49.21
Max Elbow Extension Velocity	1914.84	deg/s	99.08
Max Internal Shoulder Rotation Velocity	4075.41	deg/s	413.00
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	30.84	%	7.90
Trunk Rotation Velocity Time	90.31	%	7.78
Max Knee Extension Velocity Time	88.08	%	14.35
Max Elbow Extension Velocity Time	81.34	%	1.81
Max Internal Shoulder Rotation Velocity Time	114.51	%	7.73

REPETITIONS

- (•) Average of All Repetitions
- ( ) Right Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

DARI Motion Capture Pilot Trial - Jan/2020

DARI MOTION powered by Scientific Analytics Inc.

Halotypehealth is a Neuro Connect device

Before Holotypehealth — Pitcher 3

D7E0A203-1891-46AC-98DB-EAAD63FDC263 | 6'1" | 220 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	56.98	in	0.77
Lead Foot Position	-2.79	in	1.57
Lead Knee Flexion	58.67	deg	5.44
Pelvis Rotation	-39.87	deg	5.03
Trunk Separation	-70.34	deg	3.06
Trunk Forward Tilt	3.88	deg	3.35
Trunk Side Tilt	-12.81	deg	1.56
Shoulder Abduction	95.15	deg	3.26
Shoulder Horiz Abduction	-20.83	deg	6.81
Shoulder External Rotation	55.60	deg	9.27
Elbow Flexion	80.32	deg	4.15
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	171.96	deg	1.00
Max Shoulder Horiz Abduction	1.76	deg	2.50
Max Elbow Flexion	97.44	deg	1.41
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	47.34	deg	2.83
Trunk Forward Tilt	14.40	deg	1.87
Trunk Side Tilt	16.34	deg	1.79
Shoulder Abduction	95.84	deg	2.20
Elbow Flexion	30.74	deg	2.67
Arm Slot	59.50	deg	1.80
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	857.64	deg/s	47.44
Trunk Rotation Velocity	800.85	deg/s	81.86
Max Knee Extension Velocity	278.56	deg/s	42.54
Max Elbow Extension Velocity	1926.91	deg/s	79.88
Max Internal Shoulder Rotation Velocity	4949.32	deg/s	512.87
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	30.14	%	9.38
Trunk Rotation Velocity Time	66.34	%	9.43
Max Knee Extension Velocity Time	87.76	%	7.71
Max Elbow Extension Velocity Time	91.92	%	1.62
Max Internal Shoulder Rotation Velocity Time	116.23	%	2.94

REPETITIONS

- (•) Average of All Repetitions
- ( ) Left Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

After Holotypehealth — Pitcher 3

D7E0A203-1891-46AC-98DB-EAAD63FDC263 | 6'1" | 220 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	57.00	in	0.73
Lead Foot Position	-1.98	in	1.43
Lead Knee Flexion	56.76	deg	5.18
Pelvis Rotation	-48.00	deg	5.69
Trunk Separation	-63.64	deg	5.26
Trunk Forward Tilt	2.42	deg	3.02
Trunk Side Tilt	-13.90	deg	1.56
Shoulder Abduction	104.14	deg	1.52
Shoulder Horiz Abduction	3.59	deg	18.75
Shoulder External Rotation	53.10	deg	10.32
Elbow Flexion	68.35	deg	10.91
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	168.76	deg	0.68
Max Shoulder Horiz Abduction	20.03	deg	7.74
Max Elbow Flexion	100.59	deg	2.03
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	45.22	deg	1.73
Trunk Forward Tilt	15.57	deg	1.16
Trunk Side Tilt	18.88	deg	0.97
Shoulder Abduction	95.57	deg	2.55
Elbow Flexion	28.05	deg	2.56
Arm Slot	57.49	deg	1.36
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	950.62	deg/s	78.02
Trunk Rotation Velocity	1098.24	deg/s	156.97
Max Knee Extension Velocity	335.21	deg/s	34.80
Max Elbow Extension Velocity	2088.08	deg/s	95.04
Max Internal Shoulder Rotation Velocity	4081.43	deg/s	408.65
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	33.25	%	8.52
Trunk Rotation Velocity Time	87.35	%	7.71
Max Knee Extension Velocity Time	98.91	%	1.74
Max Elbow Extension Velocity Time	89.38	%	1.91
Max Internal Shoulder Rotation Velocity Time	112.87	%	3.91

REPETITIONS

- (•) Average of All Repetitions
- ( ) Left Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

Before Holotypehealth — Pitcher 4

B1443F9E-99A0-430F-A48B-A47AFB0F5843 | 6'7" | 230 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	57.98	in	0.82
Lead Foot Position	0.98	in	0.80
Lead Knee Flexion	47.46	deg	3.34
Pelvis Rotation	-78.82	deg	4.39
Trunk Separation	-40.79	deg	9.26
Trunk Forward Tilt	9.97	deg	2.51
Trunk Side Tilt	-1.90	deg	1.46
Shoulder Abduction	88.20	deg	2.84
Shoulder Horiz Abduction	-25.31	deg	4.20
Shoulder External Rotation	25.81	deg	7.68
Elbow Flexion	96.53	deg	4.44
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	183.55	deg	0.81
Max Shoulder Horiz Abduction	-3.07	deg	2.04
Max Elbow Flexion	108.54	deg	1.86
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	46.20	deg	4.54
Trunk Forward Tilt	34.64	deg	2.04
Trunk Side Tilt	12.99	deg	1.62
Shoulder Abduction	84.30	deg	1.67
Elbow Flexion	31.54	deg	2.19
Arm Slot	56.42	deg	2.37
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	946.08	deg/s	175.54
Trunk Rotation Velocity	820.47	deg/s	281.73
Max Knee Extension Velocity	371.86	deg/s	60.88
Max Elbow Extension Velocity	2060.20	deg/s	54.66
Max Internal Shoulder Rotation Velocity	6450.29	deg/s	518.75
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	38.78	%	7.70
Trunk Rotation Velocity Time	83.55	%	7.41
Max Knee Extension Velocity Time	95.29	%	4.32
Max Elbow Extension Velocity Time	94.76	%	1.11
Max Internal Shoulder Rotation Velocity Time	108.20	%	1.76

REPETITIONS

- (•) Average of All Repetitions
- ( ) Right Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

After Holotypehealth — Pitcher 4

B1443F9E-99A0-430F-A48B-A47AFB0F5843 | 6'7" | 230 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	58.37	in	0.67
Lead Foot Position	1.57	in	1.15
Lead Knee Flexion	45.66	deg	7.11
Pelvis Rotation	-85.09	deg	4.72
Trunk Separation	-31.94	deg	4.91
Trunk Forward Tilt	12.07	deg	3.98
Trunk Side Tilt	-6.56	deg	2.66
Shoulder Abduction	87.05	deg	6.28
Shoulder Horiz Abduction	-21.26	deg	3.32
Shoulder External Rotation	20.39	deg	12.60
Elbow Flexion	90.92	deg	10.52
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	183.04	deg	1.36
Max Shoulder Horiz Abduction	-4.79	deg	1.29
Max Elbow Flexion	106.03	deg	1.44
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	49.34	deg	4.16
Trunk Forward Tilt	30.74	deg	1.69
Trunk Side Tilt	6.99	deg	1.11
Shoulder Abduction	89.77	deg	0.95
Elbow Flexion	30.93	deg	2.84
Arm Slot	54.61	deg	2.15
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	905.01	deg/s	114.86
Trunk Rotation Velocity	727.23	deg/s	182.09
Max Knee Extension Velocity	295.60	deg/s	55.44
Max Elbow Extension Velocity	2008.33	deg/s	70.38
Max Internal Shoulder Rotation Velocity	6964.26	deg/s	515.71
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	45.53	%	11.87
Trunk Rotation Velocity Time	95.20	%	1.89
Max Knee Extension Velocity Time	94.01	%	4.97
Max Elbow Extension Velocity Time	95.66	%	1.20
Max Internal Shoulder Rotation Velocity Time	109.00	%	1.86

REPETITIONS

- (•) Average of All Repetitions
- ( ) Right Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

DARI Motion Capture Pilot Trial - Jan/2020

Halotypehealth is a Neuro Connect device

Pitcher 5

Before Holotypehealth

34BBC6DE-BA18-49E3-BFC2-789B88925911 | 6'4" | 215 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	53.63	in	0.62
Lead Foot Position	1.65	in	0.83
Lead Knee Flexion	48.90	deg	2.56
Pelvis Rotation	-56.40	deg	3.62
Trunk Separation	-42.17	deg	7.68
Trunk Forward Tilt	-18.40	deg	1.74
Trunk Side Tilt	0.49	deg	1.53
Shoulder Abduction	92.99	deg	3.80
Shoulder Horiz Abduction	-3.61	deg	3.52
Shoulder External Rotation	49.24	deg	6.96
Elbow Flexion	103.06	deg	4.07
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	166.74	deg	2.57
Max Shoulder Horiz Abduction	9.59	deg	2.33
Max Elbow Flexion	115.90	deg	1.91
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	34.35	deg	6.19
Trunk Forward Tilt	25.79	deg	1.42
Trunk Side Tilt	31.51	deg	5.02
Shoulder Abduction	96.74	deg	3.00
Elbow Flexion	22.75	deg	6.11
Arm Slot	46.86	deg	4.29
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	994.72	deg/s	121.67
Trunk Rotation Velocity	985.27	deg/s	174.33
Max Knee Extension Velocity	437.15	deg/s	78.28
Max Elbow Extension Velocity	2340.85	deg/s	157.62
Max Internal Shoulder Rotation Velocity	4162.44	deg/s	1496.73
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	18.05	%	6.71
Trunk Rotation Velocity Time	74.68	%	8.11
Max Knee Extension Velocity Time	94.86	%	9.52
Max Elbow Extension Velocity Time	87.08	%	2.08
Max Internal Shoulder Rotation Velocity Time	101.20	%	3.60

REPETITIONS

- (•) Average of All Repetitions
- ( ) Left Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

After Holotypehealth

34BBC6DE-BA18-49E3-BFC2-789B88925911 | 6'4" | 215 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	53.74	in	0.14
Lead Foot Position	2.12	in	0.52
Lead Knee Flexion	44.49	deg	2.66
Pelvis Rotation	-62.29	deg	1.35
Trunk Separation	-24.89	deg	2.05
Trunk Forward Tilt	-17.09	deg	1.75
Trunk Side Tilt	2.43	deg	1.58
Shoulder Abduction	97.45	deg	2.07
Shoulder Horiz Abduction	-10.64	deg	1.62
Shoulder External Rotation	67.81	deg	6.07
Elbow Flexion	107.03	deg	1.02
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	165.34	deg	2.32
Max Shoulder Horiz Abduction	14.75	deg	1.80
Max Elbow Flexion	120.36	deg	0.58
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	27.30	deg	4.76
Trunk Forward Tilt	22.91	deg	1.80
Trunk Side Tilt	33.26	deg	3.83
Shoulder Abduction	84.91	deg	0.72
Elbow Flexion	35.67	deg	1.12
Arm Slot	42.72	deg	0.87
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	1284.26	deg/s	111.70
Trunk Rotation Velocity	1374.70	deg/s	320.89
Max Knee Extension Velocity	496.04	deg/s	80.98
Max Elbow Extension Velocity	2368.87	deg/s	35.94
Max Internal Shoulder Rotation Velocity	5733.40	deg/s	196.02
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	29.54	%	4.90
Trunk Rotation Velocity Time	81.93	%	7.56
Max Knee Extension Velocity Time	97.04	%	3.31
Max Elbow Extension Velocity Time	89.49	%	1.82
Max Internal Shoulder Rotation Velocity Time	111.44	%	0.37

REPETITIONS

- (•) Average of All Repetitions
- ( ) Left Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

Pitcher 6

Before Holotypehealth

65918F42-6E97-4985-82B8-499B47D7DE7F | 6'2" | 220 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	54.48	in	0.94
Lead Foot Position	-1.59	in	0.96
Lead Knee Flexion	50.49	deg	3.75
Pelvis Rotation	-73.72	deg	3.19
Trunk Separation	-19.06	deg	5.10
Trunk Forward Tilt	-16.21	deg	2.34
Trunk Side Tilt	-2.53	deg	4.57
Shoulder Abduction	100.30	deg	7.18
Shoulder Horiz Abduction	-24.21	deg	8.31
Shoulder External Rotation	87.80	deg	13.54
Elbow Flexion	103.96	deg	4.57
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	177.58	deg	2.81
Max Shoulder Horiz Abduction	-5.37	deg	2.86
Max Elbow Flexion	112.81	deg	3.17
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	46.95	deg	2.90
Trunk Forward Tilt	29.36	deg	1.46
Trunk Side Tilt	28.22	deg	2.31
Shoulder Abduction	85.93	deg	1.17
Elbow Flexion	25.19	deg	2.61
Arm Slot	44.48	deg	2.18
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	1708.70	deg/s	160.86
Trunk Rotation Velocity	482.12	deg/s	136.04
Max Knee Extension Velocity	211.67	deg/s	28.00
Max Elbow Extension Velocity	2233.82	deg/s	87.01
Max Internal Shoulder Rotation Velocity	5330.58	deg/s	381.84
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	25.14	%	6.14
Trunk Rotation Velocity Time	58.99	%	26.01
Max Knee Extension Velocity Time	76.66	%	21.28
Max Elbow Extension Velocity Time	82.24	%	2.73
Max Internal Shoulder Rotation Velocity Time	107.19	%	1.45

REPETITIONS

- (•) Average of All Repetitions
- ( ) Left Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

After Holotypehealth

65918F42-6E97-4985-82B8-499B47D7DE7F | 6'2" | 220 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	55.38	in	0.73
Lead Foot Position	0.06	in	0.76
Lead Knee Flexion	53.12	deg	1.87
Pelvis Rotation	-55.34	deg	7.54
Trunk Separation	-49.11	deg	3.53
Trunk Forward Tilt	-11.12	deg	2.76
Trunk Side Tilt	-4.29	deg	2.05
Shoulder Abduction	108.46	deg	1.75
Shoulder Horiz Abduction	-27.95	deg	4.74
Shoulder External Rotation	74.82	deg	10.73
Elbow Flexion	99.67	deg	1.88
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	180.24	deg	1.85
Max Shoulder Horiz Abduction	1.96	deg	1.97
Max Elbow Flexion	117.68	deg	2.76
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	50.35	deg	2.13
Trunk Forward Tilt	35.38	deg	2.10
Trunk Side Tilt	27.83	deg	0.89
Shoulder Abduction	77.19	deg	0.77
Elbow Flexion	25.34	deg	2.19
Arm Slot	46.89	deg	1.82
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	899.36	deg/s	76.79
Trunk Rotation Velocity	676.67	deg/s	96.90
Max Knee Extension Velocity	160.10	deg/s	28.47
Max Elbow Extension Velocity	2434.01	deg/s	107.28
Max Internal Shoulder Rotation Velocity	6125.25	deg/s	187.06
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	44.45	%	30.75
Trunk Rotation Velocity Time	57.91	%	8.59
Max Knee Extension Velocity Time	98.60	%	2.64
Max Elbow Extension Velocity Time	84.34	%	1.79
Max Internal Shoulder Rotation Velocity Time	105.88	%	1.56

REPETITIONS

- (•) Average of All Repetitions
- ( ) Left Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

DARI Motion Capture Pilot Trial - Jan/2020

Halotypehealth is a Neuro Connect device

Pitcher 7

Before Holotypehealth

023F368C-531F-49F9-8CB0-322770F1D951 | 6'3" | 230 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	57.41	in	0.66
Lead Foot Position	8.59	in	1.35
Lead Knee Flexion	30.68	deg	2.27
Pelvis Rotation	-86.87	deg	1.54
Trunk Separation	-6.62	deg	3.73
Trunk Forward Tilt	2.92	deg	2.92
Trunk Side Tilt	-4.45	deg	1.70
Shoulder Abduction	98.11	deg	1.77
Shoulder Horiz Abduction	-36.26	deg	2.77
Shoulder External Rotation	52.27	deg	5.29
Elbow Flexion	67.66	deg	5.27
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	189.24	deg	2.61
Max Shoulder Horiz Abduction	-1.49	deg	3.51
Max Elbow Flexion	85.51	deg	3.22
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	18.66	deg	3.88
Trunk Forward Tilt	26.39	deg	2.24
Trunk Side Tilt	6.06	deg	1.85
Shoulder Abduction	91.21	deg	2.14
Elbow Flexion	20.92	deg	2.22
Arm Slot	65.51	deg	1.74
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	1439.36	deg/s	225.15
Trunk Rotation Velocity	1037.55	deg/s	189.07
Max Knee Extension Velocity	261.65	deg/s	69.76
Max Elbow Extension Velocity	1961.71	deg/s	85.14
Max Internal Shoulder Rotation Velocity	6158.26	deg/s	629.92
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	58.62	%	5.22
Trunk Rotation Velocity Time	91.94	%	4.66
Max Knee Extension Velocity Time	82.00	%	6.47
Max Elbow Extension Velocity Time	87.47	%	1.90
Max Internal Shoulder Rotation Velocity Time	109.66	%	5.28

REPETITIONS

- (•) Average of All Repetitions
- ( ) Right Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

After Holotypehealth

023F368C-531F-49F9-8CB0-322770F1D951 | 6'3" | 230 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	58.52	in	1.01
Lead Foot Position	9.38	in	1.32
Lead Knee Flexion	27.15	deg	2.07
Pelvis Rotation	-86.07	deg	2.98
Trunk Separation	-6.02	deg	3.70
Trunk Forward Tilt	1.92	deg	2.32
Trunk Side Tilt	-3.67	deg	1.35
Shoulder Abduction	98.80	deg	1.64
Shoulder Horiz Abduction	-34.37	deg	1.96
Shoulder External Rotation	57.28	deg	7.50
Elbow Flexion	69.46	deg	2.19
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	184.76	deg	2.61
Max Shoulder Horiz Abduction	-0.12	deg	4.37
Max Elbow Flexion	81.93	deg	3.48
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	16.57	deg	4.62
Trunk Forward Tilt	26.39	deg	1.93
Trunk Side Tilt	6.26	deg	2.10
Shoulder Abduction	87.99	deg	1.82
Elbow Flexion	22.24	deg	1.37
Arm Slot	66.42	deg	2.94
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	1208.17	deg/s	133.60
Trunk Rotation Velocity	829.91	deg/s	168.06
Max Knee Extension Velocity	266.29	deg/s	37.43
Max Elbow Extension Velocity	1887.21	deg/s	94.90
Max Internal Shoulder Rotation Velocity	5987.02	deg/s	269.32
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	72.02	%	8.19
Trunk Rotation Velocity Time	78.30	%	28.33
Max Knee Extension Velocity Time	31.13	%	21.94
Max Elbow Extension Velocity Time	85.67	%	1.86
Max Internal Shoulder Rotation Velocity Time	102.84	%	1.16

REPETITIONS

- (•) Average of All Repetitions
- ( ) Right Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

Pitcher 8

Before Holotypehealth

129D283A-084F-408D-A254-379B2A6539A0 | 6'2" | 235 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	51.35	in	1.03
Lead Foot Position	12.51	in	1.34
Lead Knee Flexion	38.25	deg	10.68
Pelvis Rotation	-87.14	deg	7.39
Trunk Separation	-9.07	deg	8.02
Trunk Forward Tilt	6.65	deg	2.71
Trunk Side Tilt	-4.51	deg	2.25
Shoulder Abduction	100.34	deg	2.49
Shoulder Horiz Abduction	-31.75	deg	2.97
Shoulder External Rotation	52.75	deg	29.60
Elbow Flexion	102.88	deg	4.35
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	181.57	deg	1.55
Max Shoulder Horiz Abduction	19.65	deg	10.49
Max Elbow Flexion	106.37	deg	3.09
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	24.28	deg	3.45
Trunk Forward Tilt	16.81	deg	1.50
Trunk Side Tilt	8.02	deg	0.90
Shoulder Abduction	102.26	deg	5.40
Elbow Flexion	31.97	deg	2.50
Arm Slot	61.80	deg	1.15
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	1164.14	deg/s	199.90
Trunk Rotation Velocity	1364.37	deg/s	147.24
Max Knee Extension Velocity	513.69	deg/s	69.98
Max Elbow Extension Velocity	2018.07	deg/s	144.16
Max Internal Shoulder Rotation Velocity	4960.66	deg/s	268.23
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	44.48	%	10.46
Trunk Rotation Velocity Time	89.68	%	3.62
Max Knee Extension Velocity Time	99.21	%	2.24
Max Elbow Extension Velocity Time	86.17	%	3.68
Max Internal Shoulder Rotation Velocity Time	118.51	%	5.11

REPETITIONS

- (•) Average of All Repetitions
- ( ) Right Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

After Holotypehealth

129D283A-084F-408D-A254-379B2A6539A0 | 6'2" | 235 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	52.35	in	1.07
Lead Foot Position	13.31	in	1.50
Lead Knee Flexion	35.47	deg	15.06
Pelvis Rotation	-81.22	deg	10.32
Trunk Separation	-18.07	deg	4.03
Trunk Forward Tilt	9.20	deg	1.56
Trunk Side Tilt	-1.74	deg	2.25
Shoulder Abduction	103.24	deg	3.53
Shoulder Horiz Abduction	-17.62	deg	7.22
Shoulder External Rotation	58.28	deg	30.42
Elbow Flexion	98.58	deg	3.68
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	182.13	deg	1.16
Max Shoulder Horiz Abduction	10.17	deg	2.01
Max Elbow Flexion	101.91	deg	2.28
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	19.75	deg	3.07
Trunk Forward Tilt	23.36	deg	1.44
Trunk Side Tilt	5.10	deg	1.27
Shoulder Abduction	91.52	deg	1.08
Elbow Flexion	29.59	deg	2.02
Arm Slot	63.24	deg	1.73
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	1089.94	deg/s	126.59
Trunk Rotation Velocity	1074.92	deg/s	123.84
Max Knee Extension Velocity	592.34	deg/s	86.87
Max Elbow Extension Velocity	1939.77	deg/s	86.46
Max Internal Shoulder Rotation Velocity	5111.95	deg/s	228.16
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	19.23	%	9.70
Trunk Rotation Velocity Time	87.62	%	2.39
Max Knee Extension Velocity Time	97.21	%	3.09
Max Elbow Extension Velocity Time	86.95	%	4.26
Max Internal Shoulder Rotation Velocity Time	110.85	%	4.60

REPETITIONS

- (•) Average of All Repetitions
- ( ) Right Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

DARI Motion Capture Pilot Trial - Jan/2020

Halotypehealth is a Neuro Connect device

Pitcher 9

Before Holotypehealth

EEDAE937-DABF-46FC-B8CF-D32E1D55CC17 | 6'4" | 220 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	52.91	in	1.01
Lead Foot Position	3.98	in	1.46
Lead Knee Flexion	53.88	deg	4.26
Pelvis Rotation	-70.02	deg	3.20
Trunk Separation	-11.90	deg	8.27
Trunk Forward Tilt	-4.40	deg	2.13
Trunk Side Tilt	-12.36	deg	1.88
Shoulder Abduction	108.66	deg	2.47
Shoulder Horiz Abduction	-29.82	deg	4.54
Shoulder External Rotation	100.85	deg	4.18
Elbow Flexion	91.26	deg	1.17
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	176.12	deg	1.95
Max Shoulder Horiz Abduction	2.78	deg	3.05
Max Elbow Flexion	101.70	deg	1.22
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	39.39	deg	8.17
Trunk Forward Tilt	27.55	deg	1.19
Trunk Side Tilt	21.84	deg	0.67
Shoulder Abduction	88.57	deg	4.55
Elbow Flexion	29.09	deg	2.10
Arm Slot	47.51	deg	1.89
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	978.69	deg/s	183.26
Trunk Rotation Velocity	596.71	deg/s	225.50
Max Knee Extension Velocity	356.23	deg/s	50.28
Max Elbow Extension Velocity	2016.36	deg/s	83.67
Max Internal Shoulder Rotation Velocity	5863.64	deg/s	463.58
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	22.10	%	8.19
Trunk Rotation Velocity Time	42.14	%	12.33
Max Knee Extension Velocity Time	92.50	%	15.00
Max Elbow Extension Velocity Time	89.85	%	1.76
Max Internal Shoulder Rotation Velocity Time	113.03	%	1.90

REPETITIONS

- (•) Average of All Repetitions
- ( ) Left Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

After Holotypehealth

EEDAE937-DABF-46FC-B8CF-D32E1D55CC17 | 6'4" | 220 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	52.89	in	1.08
Lead Foot Position	5.31	in	0.55
Lead Knee Flexion	50.43	deg	2.33
Pelvis Rotation	-64.08	deg	7.10
Trunk Separation	-22.09	deg	11.32
Trunk Forward Tilt	-4.29	deg	2.79
Trunk Side Tilt	-12.92	deg	0.57
Shoulder Abduction	101.64	deg	3.93
Shoulder Horiz Abduction	-22.08	deg	5.37
Shoulder External Rotation	98.33	deg	2.51
Elbow Flexion	94.04	deg	1.73
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	177.57	deg	1.04
Max Shoulder Horiz Abduction	-8.34	deg	3.23
Max Elbow Flexion	99.84	deg	2.19
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	42.42	deg	4.02
Trunk Forward Tilt	26.65	deg	1.27
Trunk Side Tilt	16.73	deg	1.66
Shoulder Abduction	91.99	deg	3.31
Elbow Flexion	30.53	deg	3.11
Arm Slot	45.83	deg	1.98
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	1331.75	deg/s	180.47
Trunk Rotation Velocity	614.51	deg/s	137.21
Max Knee Extension Velocity	424.65	deg/s	82.96
Max Elbow Extension Velocity	1753.82	deg/s	154.73
Max Internal Shoulder Rotation Velocity	4982.33	deg/s	295.49
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	16.02	%	5.26
Trunk Rotation Velocity Time	68.92	%	22.66
Max Knee Extension Velocity Time	99.46	%	1.20
Max Elbow Extension Velocity Time	90.61	%	1.18
Max Internal Shoulder Rotation Velocity Time	110.54	%	2.39

REPETITIONS

- (•) Average of All Repetitions
- ( ) Left Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

Pitcher 10

Before Holotypehealth

D770DCEA-B156-4395-B2A0-A748293DA117 | 6'7" | 235 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	60.73	in	0.71
Lead Foot Position	5.08	in	1.30
Lead Knee Flexion	44.24	deg	3.11
Pelvis Rotation	-54.38	deg	5.15
Trunk Separation	-56.48	deg	5.91
Trunk Forward Tilt	-3.85	deg	2.66
Trunk Side Tilt	-12.19	deg	1.59
Shoulder Abduction	113.87	deg	2.61
Shoulder Horiz Abduction	-14.96	deg	6.03
Shoulder External Rotation	45.33	deg	6.38
Elbow Flexion	98.38	deg	3.49
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	187.32	deg	1.96
Max Shoulder Horiz Abduction	-10.33	deg	1.25
Max Elbow Flexion	103.13	deg	1.67
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	40.80	deg	2.22
Trunk Forward Tilt	31.96	deg	2.68
Trunk Side Tilt	10.82	deg	2.83
Shoulder Abduction	99.93	deg	1.72
Elbow Flexion	28.82	deg	3.05
Arm Slot	38.52	deg	1.93
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	844.08	deg/s	84.83
Trunk Rotation Velocity	772.69	deg/s	124.49
Max Knee Extension Velocity	155.04	deg/s	30.88
Max Elbow Extension Velocity	2081.69	deg/s	102.14
Max Internal Shoulder Rotation Velocity	8238.96	deg/s	768.96
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	34.76	%	7.96
Trunk Rotation Velocity Time	64.03	%	10.96
Max Knee Extension Velocity Time	71.58	%	10.80
Max Elbow Extension Velocity Time	95.49	%	1.88
Max Internal Shoulder Rotation Velocity Time	109.77	%	2.01

REPETITIONS

- (•) Average of All Repetitions
- ( ) Left Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

After Holotypehealth

D770DCEA-B156-4395-B2A0-A748293DA117 | 6'7" | 235 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	61.03	in	0.51
Lead Foot Position	4.01	in	1.11
Lead Knee Flexion	44.53	deg	3.83
Pelvis Rotation	-52.22	deg	6.75
Trunk Separation	-56.31	deg	6.16
Trunk Forward Tilt	-4.88	deg	2.99
Trunk Side Tilt	-11.26	deg	2.26
Shoulder Abduction	113.07	deg	2.84
Shoulder Horiz Abduction	-18.34	deg	6.03
Shoulder External Rotation	52.28	deg	6.52
Elbow Flexion	102.76	deg	2.43
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	188.62	deg	2.46
Max Shoulder Horiz Abduction	-10.93	deg	2.17
Max Elbow Flexion	105.42	deg	1.15
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	38.81	deg	5.53
Trunk Forward Tilt	33.82	deg	2.37
Trunk Side Tilt	13.14	deg	4.07
Shoulder Abduction	99.17	deg	2.03
Elbow Flexion	28.72	deg	2.59
Arm Slot	37.32	deg	3.40
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	844.22	deg/s	53.98
Trunk Rotation Velocity	827.84	deg/s	107.45
Max Knee Extension Velocity	181.41	deg/s	43.24
Max Elbow Extension Velocity	2113.43	deg/s	87.42
Max Internal Shoulder Rotation Velocity	7829.89	deg/s	560.52
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	29.30	%	8.86
Trunk Rotation Velocity Time	65.23	%	9.28
Max Knee Extension Velocity Time	63.47	%	3.81
Max Elbow Extension Velocity Time	94.80	%	2.03
Max Internal Shoulder Rotation Velocity Time	109.34	%	2.75

REPETITIONS

- (•) Average of All Repetitions
- ( ) Left Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

DARI Motion Capture Pilot Trial - Jan/2020

Halotypehealth is a Neuro Connect device

Pitcher 11

Before Holotypehealth

E21A76D7-BA03-4BB1-9CBF-8DC8B6ED0862 | 6'3" | 220 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	53.77	in	1.08
Lead Foot Position	2.49	in	1.18
Lead Knee Flexion	43.48	deg	2.12
Pelvis Rotation	-76.53	deg	4.10
Trunk Separation	-20.20	deg	2.16
Trunk Forward Tilt	-8.87	deg	3.15
Trunk Side Tilt	-7.92	deg	1.80
Shoulder Abduction	104.46	deg	3.64
Shoulder Horiz Abduction	-9.38	deg	1.94
Shoulder External Rotation	51.10	deg	13.23
Elbow Flexion	62.14	deg	6.42
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	167.04	deg	2.35
Max Shoulder Horiz Abduction	-4.79	deg	2.32
Max Elbow Flexion	74.74	deg	2.28
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	32.73	deg	7.36
Trunk Forward Tilt	24.47	deg	2.18
Trunk Side Tilt	21.67	deg	1.22
Shoulder Abduction	84.27	deg	1.30
Elbow Flexion	24.18	deg	3.38
Arm Slot	51.12	deg	2.22
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	723.99	deg/s	106.35
Trunk Rotation Velocity	1046.12	deg/s	208.37
Max Knee Extension Velocity	315.57	deg/s	74.73
Max Elbow Extension Velocity	1573.19	deg/s	131.67
Max Internal Shoulder Rotation Velocity	4010.38	deg/s	1197.32
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	41.57	%	25.50
Trunk Rotation Velocity Time	61.35	%	6.83
Max Knee Extension Velocity Time	86.56	%	20.09
Max Elbow Extension Velocity Time	93.23	%	3.21
Max Internal Shoulder Rotation Velocity Time	103.36	%	5.27

REPETITIONS

- (•) Average of All Repetitions
- ( ) Left Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

After Holotypehealth

E21A76D7-BA03-4BB1-9CBF-8DC8B6ED0862 | 6'3" | 220 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	53.70	in	0.90
Lead Foot Position	2.60	in	1.16
Lead Knee Flexion	41.59	deg	2.83
Pelvis Rotation	-79.19	deg	4.55
Trunk Separation	-16.45	deg	2.95
Trunk Forward Tilt	-5.33	deg	2.90
Trunk Side Tilt	-7.21	deg	1.53
Shoulder Abduction	101.75	deg	6.38
Shoulder Horiz Abduction	-7.00	deg	10.33
Shoulder External Rotation	43.23	deg	11.08
Elbow Flexion	63.27	deg	8.53
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	167.79	deg	2.01
Max Shoulder Horiz Abduction	-5.35	deg	9.71
Max Elbow Flexion	76.98	deg	2.78
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	33.22	deg	4.93
Trunk Forward Tilt	17.09	deg	3.89
Trunk Side Tilt	23.46	deg	1.61
Shoulder Abduction	92.40	deg	3.15
Elbow Flexion	29.88	deg	3.04
Arm Slot	46.81	deg	1.25
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	1030.44	deg/s	160.74
Trunk Rotation Velocity	962.34	deg/s	307.55
Max Knee Extension Velocity	278.46	deg/s	54.21
Max Elbow Extension Velocity	1734.77	deg/s	144.74
Max Internal Shoulder Rotation Velocity	5843.08	deg/s	566.98
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	58.76	%	23.37
Trunk Rotation Velocity Time	66.53	%	12.58
Max Knee Extension Velocity Time	79.07	%	21.25
Max Elbow Extension Velocity Time	93.81	%	2.36
Max Internal Shoulder Rotation Velocity Time	111.65	%	3.24

REPETITIONS

- (•) Average of All Repetitions
- ( ) Left Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Left Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

Pitcher 12

Before Holotypehealth

B9302D71-5FFF-426A-A7E2-61C0CF8D8E41 | 6'4" | 245 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	58.76	in	0.45
Lead Foot Position	1.44	in	0.80
Lead Knee Flexion	52.05	deg	3.36
Pelvis Rotation	-74.47	deg	3.82
Trunk Separation	-8.62	deg	4.38
Trunk Forward Tilt	-10.67	deg	2.18
Trunk Side Tilt	5.82	deg	1.84
Shoulder Abduction	85.81	deg	2.78
Shoulder Horiz Abduction	-18.80	deg	5.92
Shoulder External Rotation	99.86	deg	5.15
Elbow Flexion	110.00	deg	1.85
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	170.69	deg	1.40
Max Shoulder Horiz Abduction	6.48	deg	1.21
Max Elbow Flexion	115.11	deg	1.64
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	33.67	deg	3.80
Trunk Forward Tilt	19.31	deg	1.26
Trunk Side Tilt	17.86	deg	2.12
Shoulder Abduction	84.75	deg	1.22
Elbow Flexion	36.93	deg	2.98
Arm Slot	55.14	deg	2.51
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	1775.99	deg/s	213.91
Trunk Rotation Velocity	521.11	deg/s	232.73
Max Knee Extension Velocity	341.98	deg/s	55.45
Max Elbow Extension Velocity	2388.72	deg/s	100.88
Max Internal Shoulder Rotation Velocity	8107.36	deg/s	227.99
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	22.46	%	6.42
Trunk Rotation Velocity Time	73.84	%	24.69
Max Knee Extension Velocity Time	90.47	%	11.96
Max Elbow Extension Velocity Time	94.71	%	3.11
Max Internal Shoulder Rotation Velocity Time	118.20	%	2.23

REPETITIONS

- (•) Average of All Repetitions
- ( ) Right Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release

After Holotypehealth

B9302D71-5FFF-426A-A7E2-61C0CF8D8E41 | 6'4" | 245 POUNDS | JANUARY 31, 2020

AVERAGE OF ALL REPETITIONS

FOOT CONTACT	VALUE	UNITS	ST. DEV
Stride	60.46	in	1.10
Lead Foot Position	2.69	in	1.10
Lead Knee Flexion	46.95	deg	4.24
Pelvis Rotation	-71.24	deg	7.66
Trunk Separation	-24.25	deg	6.40
Trunk Forward Tilt	-10.22	deg	2.62
Trunk Side Tilt	3.34	deg	2.79
Shoulder Abduction	86.29	deg	2.90
Shoulder Horiz Abduction	-18.24	deg	1.95
Shoulder External Rotation	84.48	deg	10.50
Elbow Flexion	108.41	deg	3.47
ARM COCKING PHASE	**VALUE**	**UNITS**	**ST. DEV**
Max Shoulder External Rotation	172.73	deg	2.02
Max Shoulder Horiz Abduction	7.64	deg	2.57
Max Elbow Flexion	120.25	deg	2.19
BALL RELEASE	**VALUE**	**UNITS**	**ST. DEV**
Lead Knee Flexion	36.75	deg	3.34
Trunk Forward Tilt	23.71	deg	2.23
Trunk Side Tilt	24.47	deg	3.38
Shoulder Abduction	80.68	deg	1.24
Elbow Flexion	39.51	deg	3.51
Arm Slot	53.74	deg	2.33
ANGULAR VELOCITIES	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity	1249.23	deg/s	121.64
Trunk Rotation Velocity	992.41	deg/s	88.10
Max Knee Extension Velocity	340.17	deg/s	55.01
Max Elbow Extension Velocity	2477.59	deg/s	77.12
Max Internal Shoulder Rotation Velocity	7407.31	deg/s	472.89
VELOCITY TIMING	**VALUE**	**UNITS**	**ST. DEV**
Pelvic Rotation Velocity Time	24.62	%	9.30
Trunk Rotation Velocity Time	93.69	%	4.53
Max Knee Extension Velocity Time	89.35	%	8.51
Max Elbow Extension Velocity Time	92.85	%	2.93
Max Internal Shoulder Rotation Velocity Time	113.14	%	2.84

REPETITIONS

- (•) Average of All Repetitions
- ( ) Right Hand Pitch - 1
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 2
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 3
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 4
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 5
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 6
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 7
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 8
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 9
  - Foot Contact
  - Max Ext Rotation
  - Ball Release
- ( ) Right Hand Pitch - 10
  - Foot Contact
  - Max Ext Rotation
  - Ball Release