

Soft Cap:

10k (icy tempest boost applies to this for melee)

Bleeds not affected by:

Prayers
Ults (minus meta)
ZGS
Berserker Fury relic
Precise, equilibrium
Crits

Include full arrows with prayer mod for range

Speed Multipliers

Fastest: 1, 1
Fast: 1.25, (12.25 / 9.6)
Average: 1.5, (14.9 / 9.6)

Crit Cap:

12k w/o Grim, 15k w/
Multiply by smoke cloud based on style & icy
tempest here as well

Bleeds affected by:

Equipment damage bonus
Visible boosts
Vuln
Zerk style auras (invisible boost negated under
ult)
Mahjarrat and dark magic (does work with db ult)
Scrims
Wen arrows icy precision

Weapon Handedness

2H: 1.5, 3.75
MH: 1, 2.5
OH: .5, 1.25

Weapon Damage

$\text{RoundDown}(9.6 * \text{SpeedMultipliersColumn2} * \text{damage tier} * \text{WeaponHandednessColumn1})$

Skill Bonus

$\text{Round}((\text{visible boosted cmb lvl} * \text{WeaponHandednessColumn2} - 1) * \text{SpeedMultipliersColumn1})$

Combat Style Bonus

$\text{Round}(\text{SpeedMultipliersColumn2} * \text{Equipped Bonus} * \text{WeaponHandednessColumn1})$

Bleed Inclusive

*set bleedexclusive to 1 to start

$(1 + \text{PocketDamageIncrease})$

*

$(1 + \text{vuln increase})$

*

Aura modifier

Auto Damage

$\text{WeaponDamage} + \text{Skill Bonus} + \text{Combat Style Bonus}$

If using hexhunter or equivalent, multiply by value (1.125 or 1.175 depending on if enchantment is unlocked)

RoundDown

Ability Damage

$\text{RoundDown}(\text{Damage Tier} * 9.6 * \text{WeaponHandednessColumn1})$

+

$\text{RoundDown}(\text{BoostedLevel} * \text{WeaponHandednessColumn2})$

+

$\text{RoundDown}(\text{Equipped Bonus} * \text{WeaponHandednessColumn1})$

If using hexhunter or equivalent, multiply by value (1.125 or 1.175 depending on if enchantment is unlocked)

RoundDown

Crit Exclusive

*Mage crit increase only applies to channel abilities

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smoke cloud crit damage increase * combat style ring crit increase

Style Specific Ability Damage

*some super ability specific weird edge cases

Range - Wen arrows (2% for thresh, 3% for ults, specs excluded for use and building, does boost thresh/ult bleeds)
Melee - Chaos roar boost (only applies to first hit of channeled abilities but does include all of hurricane, ezk & dclaw specs)

Base Fixed

$\text{RoundDown}(\text{BaseMin} * \text{AbilityDamage})$
1 for autos

Prayer Fixed

If not a bleed
 $\text{RoundDown}(\text{BaseFixed} * \text{Modifier})$

DPL Fixed

If not a bleed
 $\text{PrayerFixed} + 4 * \text{Max}(0, \text{LvIBoostAmount})$

Precise Fixed

If not a bleed
DPLFixed
+
 $\text{RoundDown}(\text{DPLTotal} * \text{PreciseRank} * 1.5\%)$

Base Variable

$\text{RoundDown}(\text{BaseVar} * \text{AbilityDamage})$
Auto value for autos (duh)

Prayer Variable

If not a bleed
 $\text{RoundDown}(\text{BaseVar} * \text{Modifier})$

DPL Variable

If not a bleed
 $\text{PrayerVariable} + 4 * \text{Max}(0, \text{LvIBoostAmount})$

* See:
MeleeSpecifics3 (Berserk)

Precise Variable

If not a bleed
DPLVariable
-
 $\text{RoundDown}(\text{DPLTotal} * \text{PreciseRank} * 1.5\%)$

Eq Fixed

If not a bleed
PFixed
+
RoundDown(PVar * EqRank * 3%)

Eq Variable

If not a bleed
RoundDown(PVar * (1 - EqRank * 4%))

Base Min & Max

Min = EqFixed
Max = EqFixed + EqVariable

Final Min

RoundDown(BaseMin * BleedInclusive
*
(BleedExclusive if not a bleed))

Final Max

RoundDown(BaseMax * BleedInclusive
*
(BleedExclusive if not a bleed)
*
CritExclusive if not a bleed)

*See:

MeleeSpecifics2 (ZGS)
MagicSpecifics1 (Sunshine)
MagicSpecifics2 (Meta)
RangeSpecifics1 (Death's Swiftiness)
RangeSpecifics2 (ECB Spec)

2 - ZGS Min

If not a bleed
 $\text{RoundDown}(\text{FinalMin} * 1.25)$

2 - ZGS Max

If not a bleed
 $\text{RoundDown}(\text{FinalMax} * 1.25)$

3 - Berserker Flow

Berserk Mod Fixed

Aura = 1.1 for zerk, 1 otherwise

If bleed
 $\text{RoundDown}(\text{DPLFixed} / \text{Aura})$

If not a bleed
 $\text{RoundDown}(\text{DPLFixed} * 2 / \text{Aura})$

Berserk Mod Var

Aura = 1.1 for zerk, 1 otherwise

If bleed
 $\text{RoundDown}(\text{DPLVar} / \text{Aura})$

If not a bleed
 $\text{RoundDown}(\text{DPLVar} * 2 / \text{Aura})$

Rest of the process continues as normal starting
with Precise

1 - Sunshine Flow

Sunshine Final Min

Aura = 1.1 if mani, 1 otherwise

If bleed

$\text{RoundDown}(\text{FinalMin} / \text{Aura})$

If not a bleed

$\text{RoundDown}(\text{FinalMin} / \text{Aura} * 1.5)$

Sunshine Final Max

Aura = 1.1 if mani, 1 otherwise

If bleed

$\text{RoundDown}(\text{FinalMax} / \text{Aura})$

If not a bleed

$\text{RoundDown}(\text{FinalMax} / \text{Aura} * 1.5)$

2 - Meta Flow

Meta Final Min

Aura = 1.1 if mani, 1 otherwise

$\text{RoundDown}(\text{FinalMin} / \text{Aura} * 1.625)$

Meta Final Max

Aura = 1.1 if mani, 1 otherwise

$\text{RoundDown}(\text{FinalMax} / \text{Aura} * 1.625)$

1 - Death's Swiftess

DS Final Min

Aura = 1.1 if reckless, 1 otherwise

If bleed
 $\text{RoundDown}(\text{FinalMin} / \text{Aura})$

If not a bleed
 $\text{RoundDown}(\text{FinalMin} / \text{Aura} * 1.5)$

DS Final Max

Aura = 1.1 if reckless, 1 otherwise

If bleed
 $\text{RoundDown}(\text{FinalMax} / \text{Aura})$

If not a bleed
 $\text{RoundDown}(\text{FinalMax} / \text{Aura} * 1.5)$

2 - ECB Spec

ECB Heal Ranges Min

Low = $\min(\text{FinalMin}, 2000)$
Med = $\min(\max(\text{FinalMin} - 2000, 0), 2000)$
High = $\max(\text{FinalMin} - 4000, 0)$

Soul Split Heal Min

Low * .1
+
Med * .05
+
High * .0125

ECB Spec Min

SSHealMin * 4

If vuln
* 1.1

ECB Final Min

ECB Heal Ranges Max

Low = $\min(\text{FinalMax}, 2000)$
Med = $\min(\max(\text{FinalMax} - 2000, 0), 2000)$
High = $\max(\text{FinalMax} - 4000, 0)$

Soul Split Heal Max

Low * .1
+
Med * .05
+
High * .0125
If Souls or EoF
* 1.5

ECB Spec Max

SSHealMax * 4

If vuln
* 1.1

ECB Final Max

ECBSpecMin + FinalMin

ECBSpecMax + FinalMax

3 - ECB Spec inside DS

Run through normal DS calculations



Run through normal ECB calculations using DS
Final Min/Max as starting points

Melee Abilities

Hurricane 2nd Hit

Steps modified are DPL & Precise

H1 = hit one

H2 = hit two

DPL Fixed

$$\begin{aligned} & \text{H2PrayerFixed} \\ & + \\ & 10 * \text{H2PrayerVar} / \text{H1PrayerVar} * \text{Max}(0, \\ & \quad \text{LevelBoostAmount}) \end{aligned}$$

DPL Variable

$$\begin{aligned} & \text{H2PrayerVar} \\ & + \\ & 2 * \text{Max}(0, \text{LevelBoostAmount}) \end{aligned}$$

Precise Fixed

$$\begin{aligned} & \text{H2DPLFixed} \\ & + \\ & \text{RoundDown}((1 + \text{H1DPLVar} / \text{H1DPLFixed}) * \\ & \quad \text{H2DPLFixed} * \text{PreciseRank} * 1.5\%) \end{aligned}$$

Precise Variable

$$\text{H2DPLVar} / \text{H1DPLVar} * \text{H1PreciseVar}$$

Magic Abilities

Smoke Tendrils All Hits

Step modified is FinalMin because this ability
always crits

Final Min

$$\begin{aligned} & \text{RoundDown}(\text{BaseMin} * \text{BleedInclusive} * \\ & \quad \text{BleedExclusive if not a bleed} * \\ & \quad \text{CritExclusive}) \end{aligned}$$

Range Abilities

Greater Ricochet

Rico has 3 parts
Initial single hit of 20-100%
Second 2 hits of 10-50% each
Third (with caroming up to 4) of 5-15% each

Hits are appended with 1, 2, or 3 respectively here

Only unique aspect is on the third group of hits

DPL Fixed

$\text{Min}(\text{PrayerFixed3} + 4 * \text{Max}(0, \text{LevelBoostAmount}), \text{RoundDown}(\text{DPLFixed1} / 4))$

DPL Variable

$\text{Min}(\text{PrayerVar3} + 4 * \text{Max}(0, \text{LevelBoostAmount}), \text{RoundDown}(\text{DPLVariable1} / 4))$

Snapshot

Precise step modified for 2nd hit

Precise Fixed

PreciseFixed1

Precise Variable

$\text{RoundDown}(\text{PreciseFixed2} * 1.1)$

Shadow Tendrils

2-5 hits

First 2 guaranteed

Next 3 are 90%, 80%, and 70% resp.

So roughly 50% to do all 5

DPL, Prec, Eq steps modified

DPL Fixed

$\text{PrayerFixed} + 8 * \text{Max}(0, \text{LevelBoostAmount})$

DPL Variable

PrayerVar

Precise Fixed

DPLFixed

Precise Variable

DPLVar



Equilibrium Fixed

PreciseFixed



Equilibrium Variable

PreciseVar