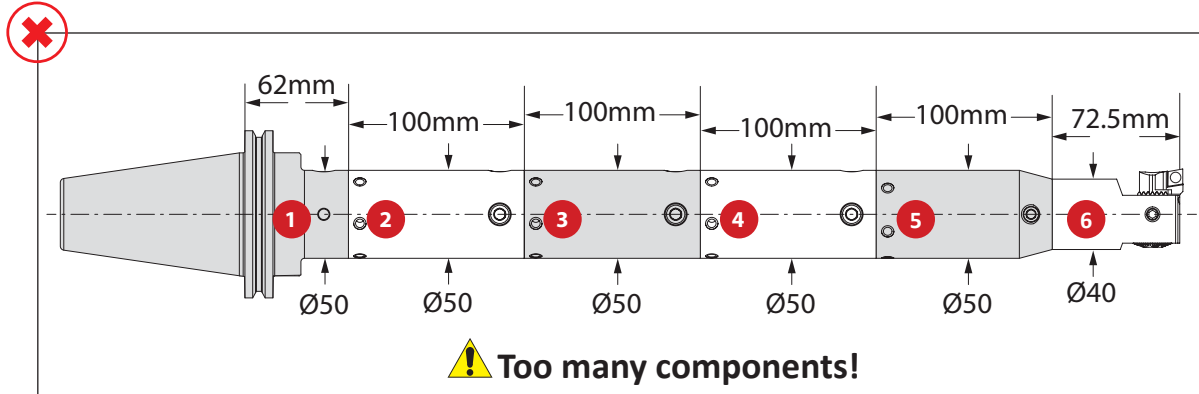


Guidelines for not Exceeding Recommended Length to Diameter Ratio

To calculate, see graphics below:



NOTE: Length-to-diameter ratio is calculated using body diameters not cutting diameter.

NOTE: Do not exceed recommended 10xD length to diameter ratio or exceed 4 total components (including shank)

Step 1: Find L : D by component

- 1 1.2 = 62/50
- 2 2.0 = 100/50
- 3 2.0 = 100/50
- 4 2.0 = 100/50
- 5 2.0 = 100/50
- 6 1.8 = 72.5/40

Step 2: Add each L : D Average

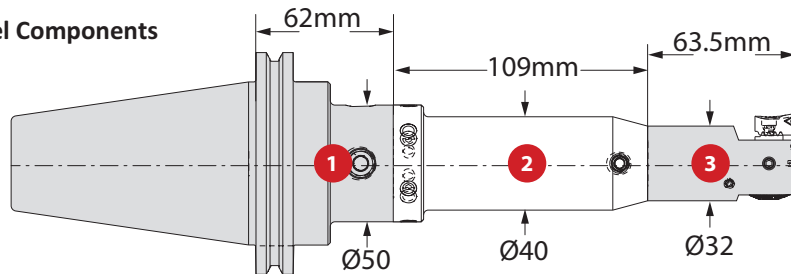
| | | |
|-----|---|---------------------------|
| 1.2 | → | 1.2 |
| 2.0 | → | 2.0 |
| 2.0 | → | 2.0 |
| 2.0 | → | 2.0 |
| 2.0 | → | 2.0 |
| 1.8 | → | 1.8 |
| | | + 1.8 |
| | | 11.0 = L : D ratio |



! Too long with too many components!



Tool Steel Components



NOTE: Length-to-diameter ratio is calculated using body diameters not cutting diameter.

NOTE: When using steel components, do not exceed recommended 6xD length to diameter ratio or exceed 4 total components (including shank).

Step 1: Find L : D by component

- 1 1.2 = 62/50
- 2 2.7 = 109/40
- 3 2.0 = 63.5/32

Step 2: Add each L : D average

| | | |
|-----|---|--------------------------|
| 1.2 | → | 1.2 |
| 2.7 | → | 2.7 |
| 2.0 | → | 2.0 |
| | | + 2.0 |
| | | 5.9 = L : D ratio |



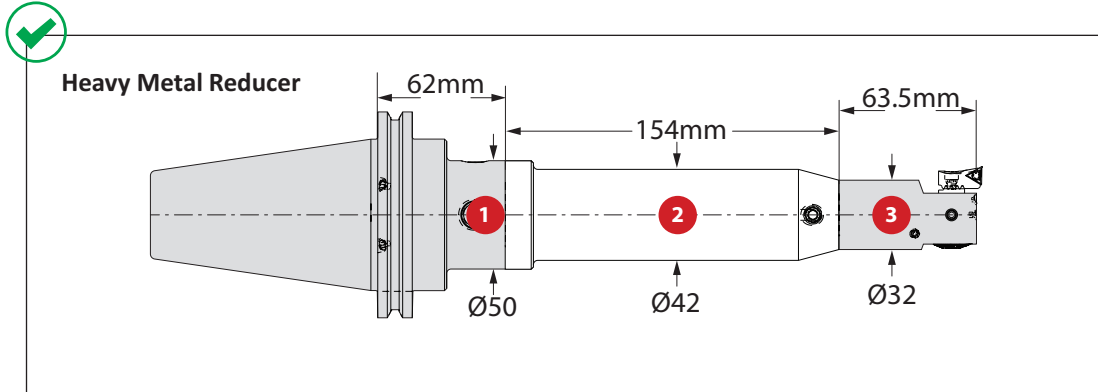
! WARNING Tool failure can cause serious injury. To prevent:

- Do not exceed recommended 10xD length-to-diameter ratio or exceed 4 total components (including shank)
- When using tool steel components, do not exceed recommended 6xD length to diameter ratio
- When using a heavy metal reducer, do not exceed recommended 8xD length to diameter ratio
- When using a carbide shank, do not exceed recommended 9xD length to diameter ratio
- When using a NOVI^{TECH} module, do not exceed recommended 10xD length to diameter ratio

Factory technical assistance is available for your specific applications through our Application Engineering department. ext: 7611 | email: appeng@alliedmachine.com

Guidelines for not Exceeding Recommended Length to Diameter Ratio

To calculate, see graphics below:



NOTE: Length-to-diameter ratio is calculated using body diameters not cutting diameter.

NOTE: When using a heavy metal reducer, do not exceed recommended 8xD length to diameter ratio or exceed 4 total components (including shank).

Step 1: Find L : D by component

1 1.2 = 62/50

2 3.6 = 154/42

3 2.0 = 63.5/32

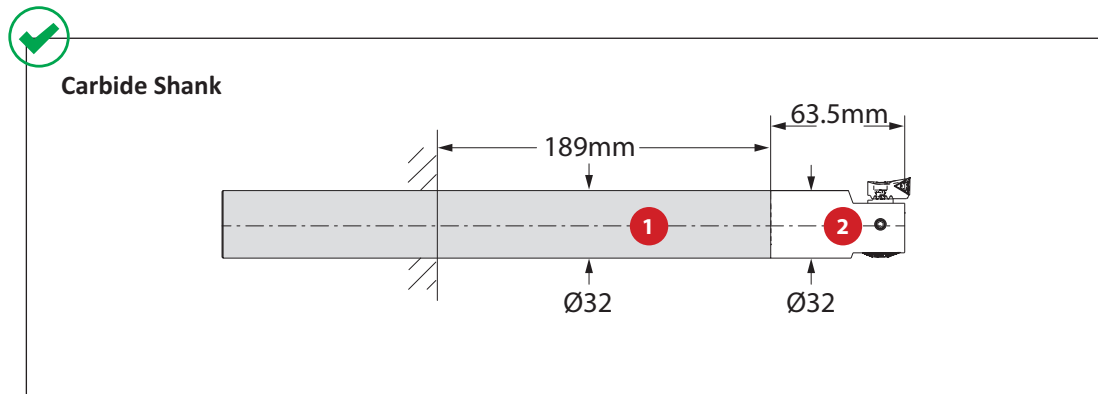
Step 2: Add each L : D average

1.2

3.6

+ 2.0

6.8 = L : D ratio



NOTE: Length-to-diameter ratio is calculated using body diameters not cutting diameter.

NOTE: When using carbide shank components, do not exceed recommended 9xD length to diameter ratio or exceed 4 total components.

Step 1: Find L : D by component

1 8.1 = 189/32

2 2.0 = 63.5/32

Step 2: Add each L : D average

5.9

+ 2.0

7.9 = L : D ratio

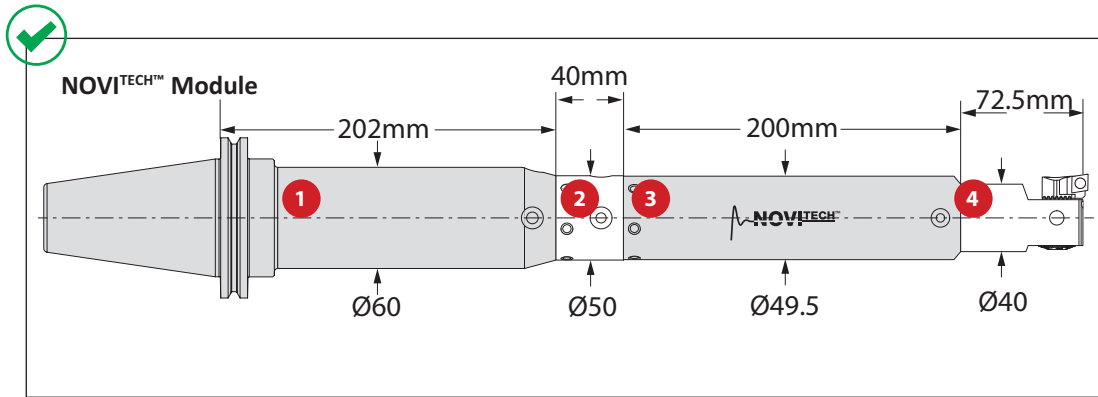
⚠ WARNING Tool failure can cause serious injury. To prevent:

- Do not exceed recommended 10xD length-to-diameter ratio or exceed 4 total components (including shank)
- When using tool steel components, do not exceed recommended 6xD length to diameter ratio
- When using a heavy metal reducer, do not exceed recommended 8xD length to diameter ratio
- When using a carbide shank, do not exceed recommended 9xD length to diameter ratio
- When using a NOVI^{TECH} module, do not exceed recommended 10xD length to diameter ratio

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Guidelines for not Exceeding Recommended Length to Diameter Ratio

To calculate, see graphics below:



NOTE: Length-to-diameter ratio is calculated using body diameters not cutting diameter.
NOTE: Do not exceed recommended 10xD length to diameter ratio when using NOVITECH™ intermediate modules or exceed four total components (including shank)

Step 1: Find L : D by component

1 $3.2 = 202/60$

2 $0.8 = 40/50$

3 $4.0 = 200/49.5$

4 $1.8 = 72.5/40$

Step 2: Add each L : D average

3.2

0.8

4.0

+ 1.8

9.8 = L : D ratio

| Component | Length to Diameter Ratio |
|-----------------------|--------------------------|
| Tool Steel Components | 6xD |
| Heavy Metal | 8xD |
| Carbide | 9xD |
| NOVITECH™ | 10xD |

⚠ WARNING Tool failure can cause serious injury. To prevent:

- Do not exceed recommended 10xD length-to-diameter ratio or exceed 4 total components (including shank)
- When using tool steel components, do not exceed recommended 6xD length to diameter ratio
- When using a heavy metal reducer, do not exceed recommended 8xD length to diameter ratio
- When using a carbide shank, do not exceed recommended 9xD length to diameter ratio
- When using a NOVITECH™ module, do not exceed recommended 10xD length to diameter ratio

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