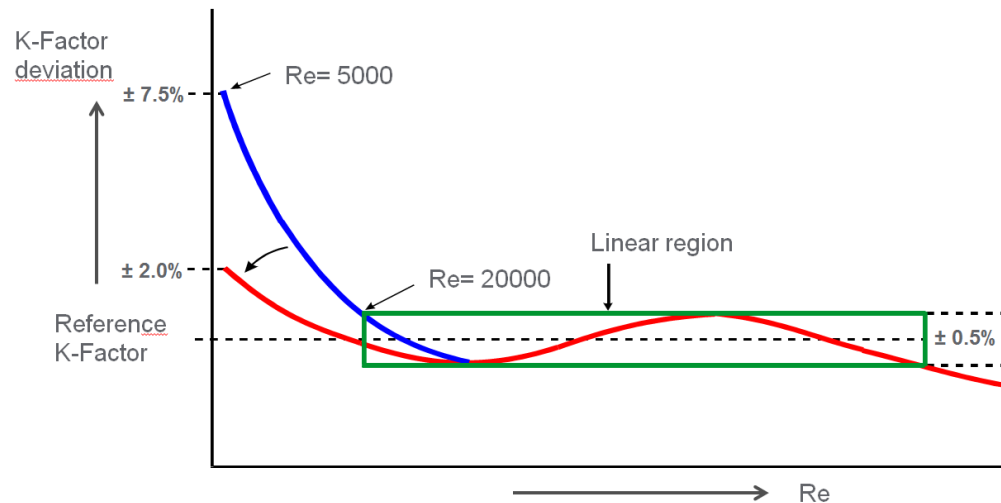


3. Schneider Electric's ActiveTuning™ intelligence

- **ActiveTuning™ algorithms** includes a number of electronic features that improve the accuracy of the flow measurement:
 - 1) **Real time Reynolds number (Re) low flow correction** down to Re of 5000
 - 2) **Low Flow Cut-In (LFCI)**
 - 3) **Compensation for piping effects**
 - 4) **Adaptive filtering and Signal conditioning**

1) Real time Reynolds number (Re) low flow correction down to Re of 5000

- corrects for changes in K factor at $Re < 20,000$



2) Low Flow Cut-In (LFCI) – eliminates noise near zero flow condition that may be caused by process noise or pipe vibration

3) Compensation for piping effects

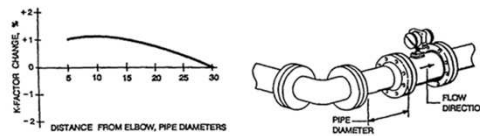
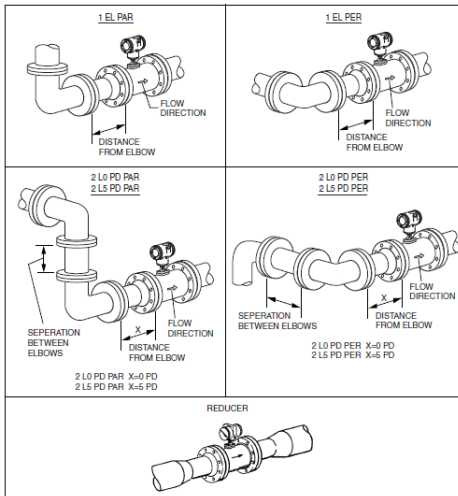
Recommended installations:

30 pipe diameters upstream and 5 downstream.

But, sometimes that is not available

Key Takeaway

Be diligent about the upstream run...but don't necessarily walk away if you can't get 30 diameters.



Example: 1 EL PER
(single elbow perpendicular to the shedder bar)

4) Adaptive filtering

- Automatically moves the low and high filters closer to the **vortex frequency** to improve the signal to noise ratio.

Key Takeaway

Adaptive filtering selectively passes only signal at the vortex shedding frequency

