

Sr. No	Factors	Rigo- Fix PoweRGrip (PGU)	Shrink Fit	Hydro Grip
1	Clamping Method	With PGU Automated Hydraulic Press with clamping force up to 9 tons fastest tool clamping in the world	Induction Device up to 13kW (Older devices even with heated air or heat element)	Allen bolt can be tighten manually.Manual influence
2	Rigidity	Non Heat, Non Hydro, Most Rigid 360 Deg Clamping without fear of carbon deposition as in shrink fit or loss of oil pressure as in Hydro Grip	Half the torque Heat shrink always attracts carbon deposition inside bore loosing life of holder.	Lowest torque Configuration of membrane speaks of non suitablity for heavy operatons
3	Function	Clamping of tool shafts by pressing a shallow taper collet into a toolholder Bore	Due to the heat up of the holder tip, the inner bore expand for inserting the cutting tool. It has to be cooled down afterwords	With the help of Hydraulic jelly, forces on circumstances
4	Safety	Safe procedure, as the hydraulic pressing machine just operate with closed doors.	Chances of burning hands as Toolholder were heated up to 350°C (Approx.) Operation rules have to be strictly followed using the best Gloves as reccommended.	tightening torque fluctuate, depends upon manpower
5	Endurance	Over 20,000 cycles on all diameters	50 – 5000 cycles; depends on the tool diameter and operation rules	NA
6	Warranty	5 Years	1 Year	NA
7	Clamping range	<b>0.2 mm</b> – 25.4 mm	Dia 3.0mm – 32.0mm. Possible Below Dia. 3 mm Not Possible Dia. 50 Possible with Huge additional Invetsment	3.0 mm - 32.0 mm
8	Applications	Milling, Drilling, <b>Tapping</b> , Reaming, <b>Turning</b>	Milling, Drilling , Tapping, Reaming	Milling, Drilling , Reaming
9	Tool presetting Length	Easy and cheap length presetting device, accurate within 0.01 mm	Expensive presetting device, Additional Springs Needed	NA
10	Flexibility	All-purpose & flexible: Each holder can take specified collets with different diameters – One collet size can cover up to 15 different shank Diameter	For every shank diameter a seperate holder is necessary	All purpose by using different type of sleeves
11	Tool shank Material	Clamping of <b>all tool shanks</b>	Limited possibilities	Limited possibilities
	Carbide	Possible within h6 tolerance	Possible within h6 tolerance	Possible within h6 tolerance
	HSS	Possible within h6 tolerance	Easy removal is not possible in every case	Possible within h6 tolerance
	Weldon	Possible within h6 tolerance	Limited possibility	Limited possibility
	Wistle-Notch	Possible within h6 tolerance	Limited possibility	Limited possibility
12	Runout	0.003 mm, 20'000 cycles	0.003 mm, changes possible after 5 times heat up	upto 0.005mm
13	Torque Transferred	1100 Nm on Ø 25 mm	600 Nm on Ø 25 mm	400 to 450 Nm
14	Vibration damping	Highly vibration dampening, due to collet and different materials	Transfering of vibrations direct to spindle and workpiece due to direct clamping	Vibration dampening, due to Hydraulic jelly
15	Machining Allowance	Once in all solution Suitable for Roughing as well as finishing irrespective of material to be cut	Might be possible	Not recommended for operations with heavy load
16	Time of tool change	8 seconds	Up to 1.5 minutes (heat up and cool down),/Natural cooling 4-5 mins	Upto 1 minutes
17	Spare Part Cost of Machine	Very Optimal (Pure mechanical system)	Huge Spare Parts Cost (Electronic & Mechanical)	Repairing cost - Jelly Life approx. 3 Years
18	Electric Power	Single Phase - 0.5 KW	Three Phase - 13KW	NA
19	Cutting Parameters	Use Maximum parameters due to High transfering Torque	High Parameters can be use	High Parameters can be use